

GRADUATE SCHOOL

2010-2012 | VOL XIII



UNIVERSITY
OF
LOUISIANA
L a f a y e t t e .

**THE UNIVERSITY OF
LOUISIANA AT LAFAYETTE**

Vol. 13

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April 2010

**GRADUATE BULLETIN
2010-2012**



**The University of Louisiana
At Lafayette**

**CATALOG AND ANNOUNCEMENTS
FOR
2010-2012**

The Bulletin represents a genuine effort to provide an accurate description of the facilities, graduate curricula and course offerings of the University in effect at the time of its publication, but it is not a contract, or an offer to contract, which may be accepted by enrolling in the University. The University reserves the right to make changes in the arrangements described herein without notice. Each graduate student must take the initiative in ascertaining and meeting the requirement of the Graduate School.

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Director of Operational Review and EEO Officer
P. O. Box 41006
University of Louisiana at Lafayette
Lafayette, LA 70504

Martin Hall, Room 315
(337) 482-1394

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Financial Aid	finaid@louisiana.edu	482-6506	Grants and Loans
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Testing Services	counseling@louisiana.edu	482-6480	Counseling and National Test Information



THE UNIVERSITY OF LOUISIANA AT LAFAYETTE

is accredited by the
Commission on Colleges of the
Southern Association of Colleges and Schools
1866 Southern Lane
Decatur, GA 30033-4097
(404) 679-4501
to award Baccalaureate, Master's, and Doctoral Degrees
and is a member of
Southern University Conference
Association of Collegiate Schools of Architecture
American Assembly of Collegiate Schools of Business
American Association of State Colleges and Universities
Conference of Southern Graduate Schools
Council of Graduate Schools

Accredited Programs

Program	Accrediting Agency
Architecture	National Architectural Accrediting Board
Athletic Training	Commission on Accreditation of Athletic Training Education (CAATE)
Business Administration	International Association to Advance Collegiate Schools of Business (AACSB International)
Chemistry	American Chemical Society ^a
Computer Science	Computing Accreditation Commission of ABET ^a
Communication	Accrediting Council on Education in Journalism and Mass Communications
Dietetics	American Dietetic Association
Education	National Council for Accreditation of Teacher Education
Engineering	
Chemical Engineering	Accreditation Board for Engineering and Technology ^b
Civil Engineering	Accreditation Board for Engineering and Technology ^b
Electrical Engineering	Accreditation Board for Engineering and Technology ^b
Mechanical Engineering	Accreditation Board for Engineering and Technology ^b
Petroleum Engineering	Accreditation Board for Engineering and Technology ^b
Health Information Management	Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)
Industrial Design	National Association of Schools of Art and Design (NASAD)
Industrial Technology	Association of Technology, Management and Applied Engineering (ATMAE)
Interior Design	National Association of Schools of Art and Design (NASAD)
Music	Council for Interior Design Accreditation
Nursing	National Association of Schools of Music
Professional Land and Resource Management	Commission on Collegiate Nursing Education (CCNE) ^c
Speech Pathology and Audiology	Curriculum approved by the American Association of Petroleum Landmen ^d Council on Academic Accreditation in Audiology and Speech-Language Pathology ^e
Teacher Education	National Council for Accreditation of Teacher Education
Visual Arts	National Association of Schools of Art and Design (NASAD)

^aAccredits only undergraduate programs

^bAccredits either undergraduate or graduate programs but not both for the same program

^cAccredits both undergraduate and graduate programs

^dThe national professional association; not an official accrediting agency

^eAccredits only graduate programs

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Spring Semester 2010 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Monday	Jan	11
Classes Begin.....	Wednesday	Jan	13
Martin Luther King Holiday (offices closed)	Monday	Jan	18
Last Day for Adding Classes.....	Tuesday	Jan	19
Last Day to Apply for Candidacy.....	Friday	Jan	22
Last Day to Apply for Graduate Degree	Tuesday	Feb	2
Last Day to Apply for Baccalaureate Degree	Tuesday	Feb	2
Graduate Foreign Language Examinations	Friday	Feb	4
Mardi Gras Holidays Begin, Close of School	Friday	Feb	12
Classes Resume.....	Thursday	Feb	18
Last Day for Dropping with a Grade of W	Monday	Mar	8
Advising Session for Summer/Fall Begins.....	Monday	Mar	15
Advising Session Ends	Friday	Mar	26
Graduate Foreign Language Examinations	Monday	Mar	29
Easter Holidays/Spring Break:			
Begins, Close of School.....	Thursday	Apr	1
Classes Resume.....	Monday	Apr	12
Last Day to Resign from the University.....	Tuesday	Apr	13
Last Day to Change an Incomplete Grade Earned in the Fall 2009 or Winter Intersession 2009 Before it Becomes a Permanent Grade of "F"	Tuesday	Apr	13
Last Day for Submitting Final Copies of Theses or Dissertations	Monday	Apr	19
Last Day for Completing Graduate Written Examinations	Thursday	Apr	22
Last Day for Completing Graduate Oral Examinations	Thursday	Apr	22
Last Day of Classes.....	Friday	Apr	30
Final Examinations Begin	Monday	May	3
Exams Continue.....	Tuesday	May	4
Mid-Exam Study Day	Wednesday	May	5
Exams Continue.....	Thursday	May	6
Exams Continue.....	Friday	May	7
Spring Commencement Exercises.....	Saturday	May	15
Semester Ends	Saturday	May	15

JANUARY 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MARCH 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Summer Session 2010 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Session Begins	Wednesday	Jun	2
Classes Begin	Monday	Jun	7
Last Day for Adding Classes	Tuesday	Jun	8
Last Day to Apply for Graduate Degree	Monday	Jun	14
Last Day to Apply for Baccalaureate Degree	Monday	Jun	14
Last Day to Apply for Candidacy	Thursday	Jul	1
Holiday, July 4 th	Monday	Jul	5
Graduate Foreign Language Examinations	Monday	Jul	12
Last Day for Dropping with a Grade of W	Thursday	Jul	15
Last Day to Resign from the University	Thursday	Jul	15
Last Day for Completing Graduate Written Examinations	Friday	Jul	23
Last Day for Graduate Oral Examinations	Friday	Jul	23
Last Day for Submitting Final Copies of Theses or Dissertations	Friday	Jul	23
Last Day of Classes	Wednesday	Jul	28
Final Examinations Begin	Thursday	Jul	29
Exams Continue	Friday	Jul	30
Session Ends	Friday	Jul	30

JANUARY 2010 S M T W T F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MARCH 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2010 S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Fall Semester 2010 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Wednesday	Aug	18
Classes Begin.....	Monday	Aug	23
Last Day for Adding Classes.....	Thursday	Aug	26
Labor Day Holiday	Monday	Sep	6
Last Day to Apply for a Graduate Degree.....	Tuesday	Sep	7
Last Day to Apply for a Baccalaureate Degree.....	Tuesday	Sep	7
Last Day to Apply for Candidacy.....	Friday	Sep	10
Graduate Foreign Language Examinations	Monday	Sep	20
Fall Holiday	Thurs-Fri	Oct	7-8
Classes Resume.....	Monday	Oct	11
Last Day for Dropping with Grade of W	Thursday	Oct	14
Advising Session for Spring Begins	Monday	Oct	18
Advising Session Ends	Friday	Oct	29
Last Day to Resign from the University.....	Thursday	Nov	4
Last Day to Change an Incomplete Grade Earned in the Spring/Summer 2010 Before it Becomes a Permanent Grade of "F"	Thursday	Nov	4
Graduate Foreign Language Examinations	Monday	Nov	8
Last Day for Submitting Final Copies of Theses or Dissertations	Tuesday	Nov	16
Last Day for Completing Graduate Written Examinations	Tuesday	Nov	23
Last Day for Graduate Oral Examinations	Tuesday	Nov	23
Thanksgiving Holidays	Thurs-Fri	Nov	25-26
Last Day of Classes	Friday	Dec	3
Final Examinations Begin	Monday	Dec	6
Exams Continue	Tuesday	Dec	7
Mid-Exam Study Day	Wednesday	Dec	8
Exams Continue	Thursday	Dec	9
Exams Continue	Friday	Dec	10
Fall Commencement Exercises	Saturday	Dec	18
Semester Ends	Saturday	Dec	18

JANUARY 2010 S M T W T F S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MARCH 2010 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2010 S M T W T F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Spring Semester 2011 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Monday	Jan	10
Classes Begin.....	Wednesday	Jan	12
Martin Luther King Holiday (offices closed)	Monday	Jan	17
Last Day for Adding Classes.....	Tuesday	Jan	18
Last Day to Apply for Candidacy.....	Friday	Jan	21
Last Day to Apply for Graduate Degree.....	Tuesday	Feb	1
Last Day to Apply for Baccalaureate Degree.....	Tuesday	Feb	1
Graduate Foreign Language Examinations	Thursday	Feb	3
Mardi Gras Holidays Begin, Close of School	Monday	Feb	7
Classes Resume.....	Thursday	Feb	10
Last Day for Dropping with a Grade of W	Thursday	Mar	10
Advising Session for Summer/Fall Begins.....	Monday	Mar	14
Advising Session Ends	Friday	Mar	25
Graduate Foreign Language Examinations	Monday	Mar	28
Last Day to Resign from the University.....	Thursday	Apr	7
Last Day to Change an Incomplete Grade Earned in the Fall 2010 or Winter Intercession 2010 Before it Becomes a Permanent "F".....	Thursday	Apr	7
Last Day for Submitting Final Copies of Theses or Dissertations	Monday	Apr	18
Last Day for Completing Graduate Written Examinations	Thursday	Apr	21
Last Day for Completing Graduate Oral Examinations	Thursday	Apr	21
Last Day of Classes.....	Thursday	Apr	21
Easter Holidays/Spring Break: Begins, Close of School.....	Friday	Apr	22
Final Examinations Begin	Monday	May	2
Exams Continue.....	Tuesday	May	3
Mid-Exam Study Day	Wednesday	May	4
Exams Continue.....	Thursday	May	5
Exams Continue.....	Friday	May	6
Spring Commencement Exercises.....	Saturday	May	14
Semester Ends	Saturday	May	14

JANUARY 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MARCH 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Summer Session 2011 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Session Begins	Wednesday	Jun	1
Classes Begin	Monday	Jun	6
Last Day for Adding Classes.....	Tuesday	Jun	7
Last Day to Apply for Graduate Degree.....	Monday	Jun	13
Last Day to Apply for Baccalaureate Degree.....	Monday	Jun	13
Last Day to Apply for Candidacy.....	Thursday	Jun	30
Holiday, July 4 th	Monday	Jul	4
Graduate Foreign Language Examinations	Monday	Jul	11
Last Day for Dropping with a Grade of W	Thursday	Jul	14
Last Day to Resign from the University.....	Thursday	Jul	14
Last Day for Completing Graduate Written Examinations	Friday	Jul	22
Last Day for Graduate Oral Examinations	Friday	Jul	22
Last Day for Submitting Final Copies of Theses or Dissertations.....	Friday	Jul	22
Last Day of Classes	Wednesday	Jul	27
Final Examinations Begin	Thursday	Jul	28
Exams Continue.....	Friday	Jul	29
Session Ends.....	Friday	Jul	29

JANUARY 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	MARCH 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2011 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Fall Semester 2011
(Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Wednesday	Aug	17
Classes Begin.....	Monday	Aug	22
Last Day for Adding Classes.....	Thursday	Aug	25
Labor Day Holiday	Monday	Sep	5
Last Day to Apply for a Graduate Degree.....	Tuesday	Sep	6
Last Day to Apply for a Baccalaureate Degree.....	Tuesday	Sep	6
Last Day to Apply for Candidacy.....	Friday	Sep	9
Graduate Foreign Language Examinations	Monday	Sep	19
Fall Holiday	Thurs-Fri	Oct	6-7
Classes Resume.....	Monday	Oct	10
Last Day for Dropping with Grade of W	Thursday	Oct	13
Advising Session for Spring Begins.....	Monday	Oct	17
Advising Session Ends	Friday	Oct	28
Last Day to Resign from the University.....	Thursday	Nov	3
Last Day to Change an Incomplete Grade Earned in the Spring/Summer 2011 Before it Becomes a Permanent "F"	Thursday	Nov	3
Graduate Foreign Language Examinations	Monday	Nov	7
Last Day for Submitting Final Copies of Theses or Dissertations	Tuesday	Nov	15
Last Day for Completing Graduate Written Examinations	Tuesday	Nov	22
Last Day for Graduate Oral Examinations	Tuesday	Nov	22
Thanksgiving Holidays	Thurs-Fri	Nov	24-25
Last Day of Classes.....	Friday	Dec	2
Final Examinations Begin	Monday	Dec	5
Exams Continue	Tuesday	Dec	6
Mid-Exam Study Day	Wednesday	Dec	7
Exams Continue	Thursday	Dec	8
Exams Continue	Friday	Dec	9
Fall Commencement Exercises	Saturday	Dec	17
Semester Ends	Saturday	Dec	17

<div>JANUARY 2011</div> <div>S M T W T F S</div> <div>1</div> <div>2 3 4 5 6 7 8</div> <div>9 10 11 12 13 14 15</div> <div>16 17 18 19 20 21 22</div> <div>23 24 25 26 27 28 29</div> <div>30 31</div>	<div>FEBRUARY 2011</div> <div>S M T W T F S</div> <div>1 2 3 4 5</div> <div>6 7 8 9 10 11 12</div> <div>13 14 15 16 17 18 19</div> <div>20 21 22 23 24 25 26</div> <div>27 28</div>	<div>MARCH 2011</div> <div>S M T W T F S</div> <div>1 2 3 4 5</div> <div>6 7 8 9 10 11 12</div> <div>13 14 15 16 17 18 19</div> <div>20 21 22 23 24 25 26</div> <div>27 28 29 30 31</div>	<div>APRIL 2011</div> <div>S M T W T F S</div> <div>1 2</div> <div>3 4 5 6 7 8 9</div> <div>10 11 12 13 14 15 16</div> <div>17 18 19 20 21 22 23</div> <div>24 25 26 27 28 29 30</div>
<div>MAY 2011</div> <div>S M T W T F S</div> <div>1 2 3 4 5 6 7</div> <div>8 9 10 11 12 13 14</div> <div>15 16 17 18 19 20 21</div> <div>22 23 24 25 26 27 28</div> <div>29 30 31</div>	<div>JUNE 2011</div> <div>S M T W T F S</div> <div>1 2 3 4</div> <div>5 6 7 8 9 10 11</div> <div>12 13 14 15 16 17 18</div> <div>19 20 21 22 23 24 25</div> <div>26 27 28 29 30</div>	<div>JULY 2011</div> <div>S M T W T F S</div> <div>1 2</div> <div>3 4 5 6 7 8 9</div> <div>10 11 12 13 14 15 16</div> <div>17 18 19 20 21 22 23</div> <div>24 25 26 27 28 29 30</div> <div>31</div>	<div>AUGUST 2011</div> <div>S M T W T F S</div> <div>1 2 3 4 5 6</div> <div>7 8 9 10 11 12 13</div> <div>14 15 16 17 18 19 20</div> <div>21 22 23 24 25 26 27</div> <div>28 29 30 31</div>
<div>SEPTEMBER 2011</div> <div>S M T W T F S</div> <div>1 2 3</div> <div>4 5 6 7 8 9 10</div> <div>11 12 13 14 15 16 17</div> <div>18 19 20 21 22 23 24</div> <div>25 26 27 28 29 30</div>	<div>OCTOBER 2011</div> <div>S M T W T F S</div> <div>1</div> <div>2 3 4 5 6 7 8</div> <div>9 10 11 12 13 14 15</div> <div>16 17 18 19 20 21 22</div> <div>23 24 25 26 27 28 29</div>	<div>NOVEMBER 2011</div> <div>S M T W T F S</div> <div>1 2 3 4 5</div> <div>6 7 8 9 10 11 12</div> <div>13 14 15 16 17 18 19</div> <div>20 21 22 23 24 25 26</div> <div>27 28 29 30</div>	<div>DECEMBER 2011</div> <div>S M T W T F S</div> <div>1 2 3</div> <div>4 5 6 7 8 9 10</div> <div>11 12 13 14 15 16 17</div> <div>18 19 20 21 22 23 24</div> <div>25 26 27 28 29 30 31</div>

Spring Semester 2012 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Monday	Jan	9
Classes Begin.....	Wednesday	Jan	11
Martin Luther King Holiday (offices closed)	Monday	Jan	16
Last Day for Adding Classes.....	Tuesday	Jan	17
Last Day to Apply for Candidacy.....	Friday	Jan	20
Last Day to Apply for Graduate Degree.....	Tuesday	Jan	31
Last Day to Apply for Baccalaureate Degree.....	Tuesday	Jan	31
Graduate Foreign Language Examinations	Thursday	Feb	2
Mardi Gras Holidays Begin, Close of School	Mon-Wed	Feb	20-22
Classes Resume.....	Thursday	Feb	23
Last Day for Dropping with a Grade of W	Thursday	Mar	8
Advising Session for Summer/Fall Begins.....	Monday	Mar	12
Advising Session Ends	Friday	Mar	23
Graduate Foreign Language Examinations	Monday	Mar	26
Last Day to Resign from the University.....	Thursday	Apr	5
Last Day to Change an Incomplete Grade Earned in the Fall 2010 or Winter Intercession 2010 Before it Becomes a Permanent "F"	Thursday	Apr	5
Last Day for Submitting Final Copies of Theses or Dissertations	Monday	Apr	16
Last Day for Completing Graduate Written Examinations	Thursday	Apr	19
Last Day for Completing Graduate Oral Examinations	Thursday	Apr	19
Last Day of Classes	Friday	Apr	27
Easter Holidays/Spring Break:			
Begins, Close of School.....	Friday	Apr	6
Classes Resume.....	Monday	Apr	16
Final Examinations Begin	Monday	Apr	30
Exams Continue.....	Tuesday	May	1
Mid-Exam Study Day	Wednesday	May	2
Exams Continue.....	Thursday	May	3
Exams Continue.....	Friday	May	4
Spring Commencement Exercises.....	Saturday	May	12
Semester Ends	Saturday	May	12

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Summer Session 2012 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Session Begins	Wednesday	May	30
Classes Begin	Monday	Jun	4
Last Day for Adding Classes.....	Tuesday	Jun	5
Last Day to Apply for Graduate Degree	Monday	Jun	11
Last Day to Apply for Baccalaureate Degree	Monday	Jun	11
Last Day to Apply for Candidacy	Thursday	Jun	28
Holiday, July 4th.....	Wednesday	Jul	4
Graduate Foreign Language Examinations	Monday	Jul	9
Last Day for Dropping with a Grade of W	Thursday	Jul	12
Last Day to Resign from the University.....	Thursday	Jul	12
Last Day for Completing Graduate Written Examinations	Friday	Jul	20
Last Day for Graduate Oral Examinations	Friday	Jul	20
Last Day for Submitting Final Copies of Theses or Dissertations...	Friday	Jul	20
Last Day of Classes	Wednesday	Jul	25
Final Examinations Begin	Thursday	Jul	26
Exams Continue.....	Friday	Jul	27
Session Ends.....	Friday	Jul	27

JANUARY 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MARCH 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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Fall Semester 2012 (Subject to Change)

Check <http://admissions.louisiana.edu/registrar/> for up-to-date calendar information

Semester Begins.....	Wednesday	Aug	15
Classes Begin.....	Monday	Aug	20
Last Day for Adding Classes.....	Thursday	Aug	23
Labor Day Holiday	Monday	Sep	3
Last Day to Apply for a Graduate Degree.....	Tuesday	Sep	4
Last Day to Apply for a Baccalaureate Degree	Tuesday	Sep	4
Last Day to Apply for Admission to Candidacy for Graduate Degree	Friday	Sep	7
Graduate Foreign Language Examinations	Monday	Sep	17
Fall Holiday	Thursday	Oct	4
Classes Resume.....	Monday	Oct	8
Last Day for Dropping with Grade of W	Thursday	Oct	11
Advising Session for Spring Begins.....	Monday	Oct	15
Advising Session Ends	Friday	Oct	26
Last Day to Resign from the University.....	Thursday	Nov	1
Last Day to Change an Incomplete Grade Earned in the Spring/Summer 2011 Before it Becomes a Permanent "F"	Thursday	Nov	1
Graduate Foreign Language Examinations	Monday	Nov	5
Last Day for Submitting Final Copies of Theses or Dissertations	Tuesday	Nov	13
Last Day for Completing Graduate Written Examinations	Tuesday	Nov	20
Last Day for Graduate Oral Examinations	Tuesday	Nov	20
Thanksgiving Holidays	Thurs-Fri	Nov	22-23
Last Day of Classes	Thursday	Nov	30
Final Examinations Begin	Monday	Dec	3
Exams Continue	Tuesday	Dec	4
Mid-Exam Study Day	Wednesday	Dec	5
Exams Continue	Thursday	Dec	6
Exams Continue	Friday	Dec	7
Fall Commencement Exercises	Saturday	Dec	15
Semester Ends	Saturday	Dec	15

JANUARY 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	MARCH 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL 2012 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
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THE UNIVERSITY

STATEMENT OF PURPOSE OF THE University of Louisiana at Lafayette

The University of Louisiana at Lafayette, the largest member of the University of Louisiana System, is a public institution of higher education offering bachelor's, master's, and doctoral degrees. Within the Carnegie classification, UL Lafayette is designated as a Research University with high research activity. The University's academic programs are administered by the Colleges of the Arts, Education, Engineering, General Studies, Liberal Arts, and Nursing and Allied Health Professions, and by the B. I. Moody III College of Business Administration, the Ray P. Authement College of the Sciences, and the Graduate School. The University is dedicated to achieving excellence in undergraduate and graduate education, in research, and in public service. For undergraduate education, this commitment implies a fundamental subscription to general education, rooted in the primacy of the traditional liberal arts and sciences as the core around which all curricula are developed. The graduate programs seek to develop scholars who will variously advance knowledge, cultivate aesthetic sensibility, and improve the material conditions of humankind. The University reaffirms its historic commitment to diversity and integration. Thus, through instruction, research, and service, the University promotes regional economic and cultural development, explores solutions to national and world issues, and advances its reputation among its peers.



GRADUATE SCHOOL

STATEMENT OF PURPOSE OF THE GRADUATE SCHOOL AT THE UNIVERSITY OF LOUISIANA AT LAFAYETTE

The Graduate School offers the administrative structure, leadership, and guidance necessary to support graduate education at the University. The staff of the Graduate School works with the Graduate Council, the academic deans, and the graduate departments and faculty to help provide students a superior educational environment within which to pursue graduate and professional degrees.

Graduate faculty members design and maintain intellectually rigorous programs that lead students to extend their knowledge, expand their capabilities, and develop critical thinking skills and expertise necessary to conduct original research. Graduate students work closely with faculty members who are committed to advancing the state of knowledge in their disciplines. Students and faculty are thus reciprocally engaged in intense learning, teaching, and research activities; the Graduate School supports and serves those so engaged.



THE UNIVERSITY OF LOUISIANA AT LAFAYETTE

E. JOSEPH SAVOIE, Ed.D., President

The University was established by Legislative Act in 1898 as the Southwestern Louisiana Industrial Institute. Classes began on September 18, 1901. When the institution became a senior college in 1921, its name changed to Southwestern Louisiana Institute of Liberal and Technical Learning. In 1960 the Legislature authorized a further change of name to the University of Southwestern Louisiana. In August 1999, the Board of Supervisors for the University of Louisiana System and the Louisiana Board of Regents voted to change the name of the University to the University of Louisiana at Lafayette. Since its founding the University has had five presidents:



Edwin L. Stephens.....	1900-1938
Lether Edward Frazar.....	1938-1941
Joel L. Fletcher.....	1941-1966
Clyde L. Rougeou.....	1966-1974
Ray P. Authement.....	1974-2008
E. Joseph Savoie.....	2008-present



Today the University of Louisiana at Lafayette is a constituent of the University of Louisiana System. Enrollment for the Fall 2009 Semester totaled 16,361 students in college credit courses and over 2,554 students in continuing education unit courses. The number of Graduate Students was 1,529. The faculty numbered 618 of whom 75.9% hold the terminal degree.

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ACADEMIC AFFAIRS

The faculties of the University are organized into eight academic colleges: The B. I. Moody III College of Business Administration, the Ray P. Authement College of Sciences, and Colleges of The Arts, Education, Engineering, General Studies, Liberal Arts, Nursing and Allied Health Professions. The deans of these colleges are responsible to the Provost and Vice President for Academic Affairs for the administration of the academic programs sponsored by their faculties and the conduct of other activities to accomplish the mission of the institution. The Academic Affairs area includes a number of support units, the University Honors Program for undergraduates and the University Art Museum. The Graduate School is administratively located under Academic Affairs and the Graduate Dean reports to the Provost.

THE GRADUATE SCHOOL

The Graduate School supports a variety of programs leading to master's and doctoral degrees, as well as selected certifications. Eligibility for admission is determined by the Dean, who acts within the framework established by the University of Louisiana Board of Supervisors and the University's Graduate Council. The University offers master's and doctoral programs in the areas listed below.

Graduate Degrees

The University of Louisiana at Lafayette grants the following degrees:

1. Master of Architecture.
2. Master of Arts, with a major in English, French, or history.
3. Master of Business Administration; Master of Business Administration/Health Care Administration joint option; Certificate in Health Care Administration.
4. Master of Education, with a major in curriculum and instruction, gifted education and educational leadership.
5. Master of Music.
6. Master of Science, with a major in biology, communication, computer engineering, computer science, geology, mathematics, nursing, physics, psychology, speech pathology and audiology, or telecommunications. In the Master of Science in Engineering program, options are available in chemical, civil, mechanical, and petroleum engineering.
7. Doctor of Education with a major in educational leadership.
8. Doctor of Philosophy, with a major in applied language and speech sciences, environmental and evolutionary biology, cognitive science, computer engineering, computer science, English, Francophone Studies, and mathematics.

Policies

1. Policies of the Graduate School are determined by the Graduate Council, subject to approval of the President of the University and within the framework authorized by the University of Louisiana Board of Supervisors. These policies are administered by the Dean of the Graduate School.
2. Some undergraduate academic regulations are also applicable to graduate students.

EEOC COMPLIANCE

The Director of Operational Review and EEOC Officer has jurisdiction over the review process for recommended personnel changes in order to verify EEOC compliance. The EEO Officer reports to the Provost on EEO matters.

RESEARCH

The Vice President for Research is responsible to the President for the areas of externally funded grants and contracts; specialized research centers; relations with federal, state, and local agencies; technology transfer; and economic development. The Vice President and his staff work closely with the deans and faculty of the academic colleges to support research and outreach activities. The office is responsible for building strong, supportive alliances with local, regional, state, and national business, governmental, and

industrial leaders that will result in bringing funding, equipment, services and other resources to the University. In cooperation with degree granting colleges and academic units at UL Lafayette, this office works to ensure that the University provides a setting in which quality research is initiated, nurtured, and completed. The Vice President oversees the Office of Research and Sponsored Programs, the University Research Park, and the following university centers:

- Cecil J. Picard Center for Child Development and Lifelong Learning (PCCD)
- Center for Business and Information Technology ([CBIT](#))
- Center for Ecology and Environmental Technology ([CEET](#))
- Enterprise Center of Louisiana ([ECOL](#))
- Energy Institute
- Institute for Coastal Ecology and Engineering (ICEE)
- Louisiana Accelerator Center ([LAC](#))
- Louisiana Immersive Technologies Enterprise ([LITE](#))
- Manufacturing Extension Partnership of Louisiana ([MEPoL](#))
- Marine Survival Training Center ([MSTC](#))
- Microscopy Center
- National Incident Management System and Advanced Technologies ([NIMSAT](#)) Institute
- Procurement Technical Assistance Center ([PTAC](#))
- New Iberia Research Center ([NIRC](#))
- Regional Application Center ([RAC](#))
- Small Business Development Center ([SBDC](#))

OFFICE OF RESEARCH AND SPONSORED PROGRAMS

The Office of Research and Sponsored Programs provides administrative support for research and sponsored program activities at the university. It has both pre award and many post award responsibilities. ORSP assists UL Lafayette investigators in many ways to secure outside funding for research and other activities and handles administration of any awarded grants and contracts that result from successful proposals. This office is responsible for stating and upholding formal policies and requirements to ensure compliance with internal and external program requirements.

UNIVERSITY RESEARCH PARK

The University Research Park, located on 143 acres of prime University of Louisiana at Lafayette property, is designed to provide a bold new research and business environment for emerging and established companies alike. The University Research Park includes laboratories, offices and facilities for basic and applied research, testing and consulting; specialized facilities such as an immersive visualization complex and a technology incubator; and a fully equipped Hilton Garden Inn that includes an educational

training facility for University students. Its primary purposes include providing an exceptional environment for teaching and research; promoting University research and development in partnership with industry and government; assisting in the growth of new ventures; promoting economic development; aiding in the transfer of technology and skills from the University to industry and government tenants.

STUDENT WELFARE

THE OFFICE OF VICE PRESIDENT FOR STUDENT AFFAIRS

The Office of Vice President for Student Affairs coordinates the various non-academic departments which relate directly to the well-being of students enrolled at the University. The Student Affairs area recognizes the diversity of student needs. It continually appraises present programs and works to implement new programs and activities to enhance student success.

The Office of the Vice President for Student Affairs is comprised of The Dean of Students, Associates and Assistants and department heads in the following areas: Career Services Center, Cajun Card Office, SGA Child Development Center, Counseling and Testing Center including the Services for Students with Disabilities Office, Housing, Office of International Affairs, Recreational Sports, Parking and Transit, Student Health Services, Student Organizations, Student Personnel, Greek Affairs, Student Union, Student Publications and University Police.

Student Affairs administrators are always available to students and parents to assist with any situation that may present itself.

OFFICE OF STUDENT PERSONNEL

The Office of Student Personnel oversees the general welfare of all students. It formulates policies and makes recommendations concerning student welfare.

The Office believes that each student is an individual. Every effort is made to meet individual needs. To carry out that responsibility, the staff is available to students at all times. Its members work closely with other areas of the University and agencies in the community.

The Office initiates and implements disciplinary procedures in accordance with the Code of Student Conduct. It is also the responsibility of the Office to coordinate residence hall policies and programs and to administer the student-counselor program in both the men's and women's residence halls.

OFFICE OF INTERNATIONAL AFFAIRS

The Office of International Affairs serves more than 700 international students attending the University of Louisiana at Lafayette. The most important function of the Office is to provide the assistance needed in adjusting to life here in the U.S., whether it is cultural, academic, financial, immigration, or personal. The office coordinates all the University programs for international students and establishes communication with various agencies of the U.S. government, foreign governments, and private organizations. For information, see the website www.louisiana.edu/oia or phone (337) 482-6819.

Services

The following services are provided by the Office of International Affairs:

- Orientation of new students on academics, community life, and services
- Assistance with all immigration regulations to which international students are subjected, especially extensions of stay, transfers, work permits/practical training, and travel documents
- General counseling on academic, financial, and personal matters
- Administration of a basic and major medical insurance policy for international students and their spouses/children
- Publication of the International Student Newsletter
- Full-time student letters and expense letters for foreign exchange

Special Programs

The Office of International Affairs coordinates the following programs:

- International Friendship Program – family oriented programs from the community enabling students to understand U.S. families, values and customs
- Global Education Program – enables students to speak to community groups and schools about their countries
- Coffee Hour – weekly gathering of international students, with other University of Louisiana at Lafayette students, faculty, administrators, and the general public

Organization

At the University of Louisiana at Lafayette, there are organizations, which are international in focus, providing social, cultural, and educational activities for both international and other University of Louisiana at Lafayette students. The International Student Council (ISC) is a council composed entirely of international students. The presidents of the international associations represent their respective countries on the council. The ISC serves to assist international students in adjusting to the environment at the University of Louisiana at Lafayette and Lafayette itself. The council promotes interaction between international students and presents their views through various cultural and traditional programs.

COUNSELING AND TESTING CENTER

The Counseling and Testing Center assists students with social or emotional concerns. Problems in interpersonal relationships, depression, feelings of inadequacy, loneliness, sexuality, poor grades, and conflict related to one's family and friends are all under the purview of the Center. A staff of professional counselors offers free personal counseling. Psychological tests may be used to help clarify important issues. Special-interest group programs are offered for issues such as stress and anxiety. The Center provides an atmosphere where personal concerns of any type may be examined and discussed freely. Its services are confidential.

HEALTH SERVICES

Student Health Service (SHS) is located in the Saucier Building on Boucher Street. It is accessible through the front door that faces the east end of the Student Union near Cypress Lake.

SHS strives to provide quality, accessible, cost sensitive primary medical care and active health promotion to the students within the campus community. A staff of medical professionals is available to provide consultation and treatment for a variety of health concerns. SHS operates utilizing a combination of appointments and walk-in services. We follow "University Hours of Operation" throughout the year. The clinician's hours vary, please call or check our website for specific times.

SHS also administers the student's Basic Injury and Sickness Insurance Plan. Students having questions about services or insurance are urged to contact the SHS directly by calling 337-482-6826.

OFFICE OF DISABILITY SERVICES

The Office of Disability Services provides academic accommodations to students with documented physical, learning, and/or emotional disabilities. Once registered with ODS, students may receive individual counseling, assistance with scheduling, and other needed arrangements in class conditions and other campus offerings. Auxiliary aides and services as well as information on campus resources for students with disabilities are also coordinated through the office. Please note: students must be properly registered with ODS to receive accommodations. Information can be found at <http://disability.louisiana.edu> or by calling 337-482-5252.

STUDENT HOUSING

The University operates eight residence halls and one apartment complex capable of housing nearly 2,000 students. All of these facilities are air conditioned. There are five women's residence halls, two men's residence halls, one residence hall reserved for men and women graduate students, and the apartment complex for men and women. All halls are conveniently located near food-service facilities. All residence halls have rooms with dedicated computer connections. Requests for housing applications may be made in person at the Student Union, Room 240, by writing to the Housing Office, P. O. Box 42690, Lafayette, LA

70504, by email: housing@louisiana.edu, or by downloading from the University of Louisiana at Lafayette homepage: www.louisiana.edu.

The University operates 100 unfurnished two bedroom apartments for married or single head of household students. Students interested in this type of housing should file applications as soon as possible because assignments are made in the order in which the applications are received. Requests for apartment applications may be made in person at the Student Union, Room 240, or by writing to the Housing Office, P. O. Box 42690, Lafayette, LA 70504, by email: housing@louisiana.edu, or by downloading from the University of Louisiana at Lafayette homepage: www.louisiana.edu.

PARKING AND TRANSIT

An automobile that is operated and parked on campus must be registered at the Parking and Transit Office. Parking and Transit has three types of parking lots: prime, non-prime and residence hall zones. Prime lots are located on campus; less expensive non-prime zones are located off campus. Residence hall zones are limited to residence hall students with vehicles. Residents must purchase a permit at the Parking and Transit office each semester. The only exception is residents of Legacy Park, who purchase a permit yearly. To obtain a parking permit, students must present vehicle registration, pictured ID, CLID number, and appropriate fee. Cajun Field and zone 40 (Bourgeois Hall) no longer require a permit to park.

The UL Lafayette Transit System provides eleven passenger buses to transport users to the center of campus. Parking and Transit also operates two evening shuttles for student convenience.

Traffic regulations are available on the Parking and Transit website: <http://park.louisiana.edu>. Tickets may be appealed on the website: <http://park.louisiana.edu>, however, all such appeals must be filed within ninety-six hours following the issuance of the ticket. Violations may be paid at the office in Olivier Hall, Room 100 or online at <http://park.louisiana.edu>.

CAJUN CARD SERVICES

Cajun Card Services is responsible for producing all identification cards for students, faculty and staff and for providing the student pictures that appear in the L'Acadien Yearbook. Cajun Cash and duplicate ID's are also handled by this office, which is located in the Student Union.

The Cajun Card is an all-in-one ID card and the key to student life at UL Lafayette. It functions as a student's ID card, computer lab access, meal plan, debit card, and printing and copying card. Cajun Cash can be used at the food courts on campus, UL Lafayette Bookstore, and vending machines around campus. The Cajun Card also functions as one's season ticket to all regular season home Ragin' Cajun athletic events.

THE UNIVERSITY OF LOUISIANA AT LAFAYETTE SGA CHILD DEVELOPMENT CENTER

The University, in conjunction with the Student Government Association, operates a Child Development Center for children of students, faculty, and staff. The Center is staffed by fourteen full-time and three part-time workers. Children from one year to six years of age are eligible for the services offered by the Center. The Center operates five days per week and is approved by the State Division of Licensing and Certification for Child Care Centers. Additionally, the Center is used as an observation and demonstration facility by University of Louisiana at Lafayette students from various academic departments.

CAREER SERVICES CENTER

The University of Louisiana at Lafayette Career Services Center is located in the Conference Center, Room 104 and provides assistance to students and alumni of the University of Louisiana at Lafayette in career planning and job seeking strategies. The Center has a wealth of information on careers and jobs and serves as a major link between students and potential employers. The Center is committed to serving employers throughout the nation by assisting them in identifying qualified candidates for their organization. Visit our web site (<http://careerservices.louisiana.edu>) for more information.

GRADUATE STUDENT ORGANIZATION

The Graduate Student Organization, an autonomous association, provides financial assistance to students in their pursuit of academic achievement and excellence. The organization also strives to maintain lines of communication between the administration of the University and graduate students. The GSO coordinates its efforts with the Graduate School senators elected to the Student Government Association and through membership on the Graduate Council.

THE UNIVERSITY LIBRARIES

The main library at the University of Louisiana at Lafayette, Edith Garland Dupré Library, is located at the center of the campus. The modern, three-floor structure seats approximately 2,100 people. The Library's cataloged collection presently contains over 1,030,000 volumes and 2,100,000 microform items. Some 6,850 serial titles are currently received, and back-files are being developed both in print and non-print form. The SIRSI database is functional within the Library or from office or home terminals.

The Special Collections Department houses unique materials useful for research. Microforms contain newspapers, magazines, books, etc. which have been reproduced in a micro format. The Louisiana Room contains over 40,000 volumes, serials, newspapers (in both newsprint and on microform), maps, videotapes, vertical files, and material in other formats relating to Louisiana. The Genealogy and the Legal collections are available for browsing. It is also a depository for Louisiana State Documents.

The Southwestern Archives and Manuscripts Collection contains the records of the University, including the papers from the Office of the President starting in 1900. The manuscripts collection has several notable strengths: Louisiana politics [the papers of Robert F. and Edwin S. Broussard, the gubernatorial papers of John M. Parker, the papers of Edwin S. Willis, and the papers of Armand Brinkhaus]; rice milling and agriculture [Abram Kaplan Papers, Louisiana State Rice Milling Company Records/ Godchaux Family Papers, Rice Millers Association Records, American Rice Mill Records, Louisiana Irrigation and Mill Company Records]; and Women's Studies [Edith Garland Dupré Papers, Mary Dichmann Papers, Wes Cady Papers, Lafayette Branch of the American Association of University Women Records, Lafayette Women's Club Records]. Other important collections include the Jefferson Caffery Papers and Memorabilia, the David R. Williams Papers, the Voorhies Family Papers, the Givens-Hopkins Family Papers, the Billeaud Sugar Mill Records, the John Fontenot Abstract Records, the Mary Alice Fontenot Papers and the Ernest J. Gaines Papers. There is an outstanding collection of photographs from several area photographers, including the Barnett Studio Photographs and the John E. Stephan Photograph Collection. There is also a growing oral history collection. Most of the tapes are of people related to the University, but there are also many of people from the Acadiana community.

The Rare Book Collection houses rare and unique books printed before 1900 or of special artifactual value. There are particular strengths in French history and literature, horticulture, and architecture.

Materials in all of these divisions of Special Collections are available through the Jefferson Caffery Reading Room.

Dupré Library serves as a partial depository for United States government documents, as well as a complete depository for Louisiana documents. The Newspaper and Microfilm Collection, with its catalog and viewing equipment for microfilm, microfiche, and micro print, is housed in its own area.

A highly trained professional library faculty with interests in many fields is provided to give the best in library service. Constant effort is made to improve the University library system. The library utilizes a computerized circulation system for record keeping and is a member of the Southeastern Library Network (SOLINET) which provides computerized cataloging. The rapid growth in the collection, the professional competence and interest of the library faculty members and clerical staff, the utilization of the latest techniques in providing efficient library service and the active cooperation of the teaching faculty all work together to assure students and faculty of the University of Louisiana at Lafayette the finest in library assistance available.

Additional information regarding library facilities, holdings, and services is available at www.louisiana.edu/Library.

COMPUTING FACILITIES AND SERVICES

The University is committed to providing our students access to computers and technology. Across our campus, auditoriums and "smart" classrooms are equipped with state-of-the-art computers and multimedia

presentation systems. A large, diverse group of computer laboratories exists for students to conveniently access personal computers and workstations in their academic pursuits. General computing facilities located across campus are open to all students and are available at a variety of times and schedules including evenings and weekends. Select locations are open 24 hours a day during the academic semester. These labs contain a variety of computers running Microsoft Windows, Sun Solaris, Apple MacOS and Linux operating systems. A wide selection of application software is available from word processing database and spreadsheets to very specialized domain-specific tools. Internet access and printing is available in all general purpose labs. Several limited-access high performance computer clusters are also available to qualified users.

A Student Technology Enhancement Program (STEP) initiative has been the engine driving the deployment of a University Wireless Information Network (UWIN). Supporting both 802.11B and 802.11G connections, UWIN is being deployed to support students in academic buildings, some housing units, and outside areas. UWIN supports visitors to campus, has a "coffee shop" mode of operation and a secure mode of operation. Wireless network connectivity allows users to access computing resources from a bench outside of the building or while waiting in the hallway to their next class making use of every minute of a student's busy day. Select older housing units, that were constructed long before electronic computers existed, are being updated with UWIN to provide computer connectivity. Select new classrooms are also covered by UWIN so students can use their wireless laptops in class.

The Help Desk provides assistance to students, faculty, and staff who are using computers for academic pursuits. The most widely recognized activity of the Help Desk is University Computing Services (UCS) account activation. The Help Desk provides self-help guides (available as printed handouts and as online documents), as well as one-on-one user instruction. The Help Desk also provides limited assistance for software applications in common use on personal computers (Windows and Mac). Other topics frequently addressed by the Help Desk include changing passwords, statistical analysis software, receiving e-mail, forwarding e-mail, and establishing e-mail aliases.

The University provides several computer-based services which are available to all students, faculty and staff. Two of the most important are Moodle and ULink. Moodle is an online course management system which allows professors to create effective online learning communities. ULink is the University's online information system. Through ULink users are allowed to send and receive University e-mail, access the online course registration system, view and print unofficial course transcripts, view and print class and final exam schedules, and access other student academic tools and resources.

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FINANCIAL AID FOR GRADUATE STUDENTS

I. GRADUATE ASSISTANTSHIPS

- A. Graduate assistantships are awarded to selected graduate students in each graduate program. Applications and supporting documents for graduate assistantships should be submitted to the Dean of the Graduate School by March 1 for fall appointments and by November 1 for spring appointments. Individual programs may adhere to different deadlines, and applicants should contact their specific department for deadline information.
- B. To qualify for an assistantship, a student must be in regular admission status.
- C. An international graduate assistant whose native language is not English may not be assigned certain duties until the student passes an oral-proficiency test administered by the Department of Modern Languages.
- D. The amounts of assistantship stipends are announced annually. Compensation includes remission of tuition and most fees.
- E. Assistantships are awarded for the academic year. They are contingent upon satisfactory performance in graduate studies and acceptable discharge of assistantship duties; they may be revoked at any time these conditions are not met. A graduate assistant must complete a minimum of nine credit hours applicable to the degree each semester.
- F. Duties and responsibilities of a graduate assistant are specified by the department or administrative unit to which the student is assigned. They are generally the equivalent of teaching two lower-division lecture classes or 20 service hours per week.
- G. No graduate assistant may receive payment for a second campus job unless approved by the major department and the Dean of the Graduate School. Individual departments may determine whether or not to permit assistants to accept off-campus employment.
- H. Course-load requirements for graduate assistants are given in section V.C.4. under General Regulations (next section).

II. FELLOWSHIPS, SCHOLARSHIPS, AND RESEARCH ASSISTANTSHIPS

- A. The Graduate School offers a number of University Fellowships at the doctoral and master's levels. Academic year (fall and spring semesters) Ph.D. fellowships include a stipend of \$15,775, low-cost housing, and waiver of tuition and most fees. Master's stipends have a minimum value of \$9,500 with a waiver of tuition and most fees. Doctoral fellowships are also available through the Graduate School from the Board of Regents Support Fund. Renewable stipends are approximately \$22,000. Recipients of Board of Regents fellowships must be American citizens. Those identified as ten-month "University fellows" may hold no other employment on- or off-campus during the academic year; they may, however, hold on- or off-campus jobs during the summer session. No Board of Regents or Minority fellowship recipient may receive payment for a campus job nor hold a job off-campus.
- B. Several departments have research assistantships, fellowships, and part-time teaching positions available. For such positions, students are requested to communicate directly with their departments.

III. OTHER FINANCIAL AID

Graduate students may also use some of the sources of financial aid available to undergraduate students. Students seeking such assistance should contact the Student Financial Aid Office by calling 337-482-6506.

IV. CONVENTION BETWEEN THE UNIVERSITY AND THE SUPPORTED STUDENT

The Graduate School supports the following resolution of the Council of Graduate Schools:

Acceptance of an offer of financial support (such as a graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by

all parties. Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer. A copy of this Resolution accompanies every scholarship, fellowship, traineeship, and assistantship offer.

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GENERAL REGULATIONS

The University is dedicated to learning, to the advancement of knowledge, and to fostering human growth and development. It provides a sound educational program that encourages independence and maturity. Upon enrolling in the University, a graduate student assumes the obligation to obey all rules and regulations, whether of an academic or non-academic nature, made by properly constituted authorities and including but not necessarily limited to what is contained in this *Bulletin* and in the Code of Student Conduct. Each student is obliged to preserve faithfully all property provided by the State for educational purposes and to discharge duties as a student with diligence, fidelity, and honor.

A graduate student who is penalized for violation of a rule or regulation of the University has the right of appeal. The student may initiate an appeal in the Office of the Dean of the Graduate School in the case of an academic matter or in the Office of Student Personnel in the case of a non-academic matter.

The University and its colleges and schools reserve the right to change the fees and alter the calendar and the rules and regulations governing registration, instruction, and graduation from the University and its various divisions and to change any other regulations affecting the student body. Changes shall go into force whenever the proper authorities so determine. Changes shall apply not only to prospective students, but also to those who are already enrolled in the University.

I. ADMISSION TO THE GRADUATE SCHOOL

A. TYPES OF ADMISSION

A student may be admitted to the Graduate School in one of the following three categories:

1. Degree students are those admitted to the Graduate School for study toward a specific graduate degree.
2. Special Non-Degree students are those admitted to the Graduate School for study not leading to a graduate degree. Credits earned while in this status may, under certain conditions, be applied toward a graduate degree at a later time, subject to the approval of the department concerned and the Dean of the Graduate School.
3. Entrée students are those admitted to a special program for adult, professional, non-degree graduate students. Students enrolled in Entrée status can make no progress toward completion of a graduate degree. Courses in some departments are closed to Entrée students.

B. APPLICATION FOR ADMISSION

1. Students may apply electronically at <http://gradschool.louisiana.edu>. Each person who desires to pursue graduate study must make application on the appropriate form, which may also be obtained by writing to the Dean of the Graduate School or by appearing in person at the Graduate School office. Each application must be accompanied by a non-refundable fee of \$25.00 for U.S. citizens, permanent residents, and refugees, and \$30.00 for non-U.S. citizens.
2. Prospective Degree students and prospective Special Non-Degree students must arrange with all colleges previously attended to have two official transcripts of all undergraduate and graduate credits sent directly to the University of Louisiana at Lafayette Graduate School (not to Admissions or to the Registrar). A student who is ineligible to return to a previously attended institution is ineligible for admission to the Graduate School (without completing a formal appeal process).
3. Prospective Degree students and prospective Special Non-Degree students must have official results of the Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT) sent by Educational Testing Service directly to the Graduate School.
4. Prospective Degree students and prospective Special Non-Degree students must submit three letters of recommendation on the appropriate forms. These forms are part of the application packet.
5. Prospective Entrée students must complete a special application form and provide proof that they hold a bachelor's degree.
6. Degree and Special Non-Degree applicants should ensure that their applications, including required credentials, are complete at least 30 days before the beginning of the semester or summer session in which they expect to enroll. Applicants outside the United States should submit

required credentials at least 90 days before the beginning of the semester in which they expect to enroll. Applications not completed according to this time schedule will be processed if circumstances permit, but no guarantee can be made that the applicants in question will be admitted in sufficient time to register for the upcoming semester or summer session. Some programs have established early deadlines for admission.

7. No student can receive graduate credit for any course without having been formally admitted to the Graduate School prior to enrolling in the course.
8. A student with a University of Louisiana at Lafayette undergraduate degree must follow the *Bulletin* in effect at the time of entrance into the Graduate School.

C. APPLICATION FOR READMISSION

1. A student whose enrollment in the Graduate School is not continuous (that is, one who is not enrolled for one or more semesters) is required to submit an application for readmission, accompanied by a non-refundable fee of \$5.00 for U.S. citizens, permanent residents, and refugees, and \$15.00 for non-U.S. citizens. In general, the requirements outlined in section B also apply to readmission.
2. Any student not in attendance for two or more successive regular semesters (excluding summer sessions) must follow the requirements printed in the *Bulletin* in effect at the time of re-entry into the University. Any exceptions to this regulation must be approved in writing by the Dean of the Graduate School.

D. QUALIFICATIONS FOR ADMISSION

1. To be admissible to Graduate School, an applicant must satisfy general requirements for admission to the University and must hold a baccalaureate or a master's degree from a regionally accredited institution.
2. To be eligible for regular admission to a master's degree program, an applicant must:
 - a. Provide official documentation of an undergraduate grade-point average of not less than 2.75 (4.0 scale) on all work attempted or not less than 3.0 (4.0 scale) on the last 60 hours from an accredited institution. Individual departments may require a higher grade-point average. Please note that all grades are considered, even original grades in courses which have been repeated.
 - b. Present satisfactory scores on the General Test (all portions) of the GRE, or, for MBA applicants, a satisfactory score on the GMAT.
3. To be eligible for regular admission to a doctoral program, an applicant must:
 - a. Provide official documentation of an undergraduate grade-point average of 3.0 or a minimum grade-point average of 3.3 on all graduate work attempted. Please note that all grades are considered, even original grades in courses which have been repeated.
 - b. Present satisfactory scores on the General Test (all portions) of the GRE.
4. Applicants whose mother tongue is not English and who hold degrees only from institutions outside the United States must submit acceptable TOEFL scores. Scores below 550 on the written examination, 213 on the computer-based examination, or 81 on Internet-based exam are not considered satisfactory.
5. Applicants who do not meet criteria for regular admission may be considered for conditional admission. Departments use the following criteria:
 - a. the applicant's GPA in the major field;
 - b. the number of successfully completed hours in the applicant's major field;
 - c. the strength and appropriateness of the applicant's undergraduate curriculum;
 - d. letters of reference;
 - e. an outstanding score on the subject portion of the GRE;
 - f. publications and professional or other experience relevant to the field.

All international students coming from abroad are admitted in conditional status.
6. The following provisions govern the removal of conditional status:
 - a. A student admitted conditionally solely because of a lack of satisfactory GRE or GMAT scores may have admission status changed to "Regular" by presenting satisfactory scores. Admission

to regular status is not retroactive. It becomes effective when the student's scores have been received by the Graduate School from Educational Testing Service.

- b. In no case except that specified above is conditional status lifted automatically. A student in conditional status who has presented minimally acceptable GRE or GMAT scores (see 2.b. above and E.5. below) and who has earned a 3.0 average or better on all graduate work attempted at the University of Louisiana at Lafayette, with no more than one grade of C, may under certain conditions be granted regular status after the completion of a minimum of 12 semester hours of graduate credit. Upon written petition of the student and with recommendations of appropriate members of the graduate faculty, the Dean of the Graduate School may grant the student regular admission status. In the case of a Degree student, the lifting of conditional status is dependent upon the recommendation of the head or graduate coordinator of the department concerned. The department decides which graduate credits earned while the student was in conditional status may be applied toward the fulfillment of degree requirements. The final decision concerning removal of conditional status rests with the Dean of the Graduate School.
7. The enrollment of outstanding senior students, for a maximum of 6 hours of graduate credit per semester, is possible under either of the following circumstances:
 - a. If the student is a graduating senior who has a grade-point average of at least 3.0 in all work pursued and who lacks no more than 7 semester hours for the completion of the baccalaureate degree.
 - b. If the student has senior standing with at least 40 hours of course work on the 300 level or above, has an overall grade-point average of at least 3.0 on all work pursued, and is within 9 hours of completing undergraduate requirements in the major field. Students enrolled under these circumstances must be admitted to the Graduate School. Courses taken may not be used for both undergraduate and graduate credit.
8. An applicant ineligible to register in any previously attended University as an undergraduate or graduate is not admissible to the Graduate School (without completing a formal appeal process).

E. GRADUATE RECORD EXAMINATION, GRADUATE MANAGEMENT ADMISSION TEST, AND TEST OF ENGLISH AS A FOREIGN LANGUAGE

1. Except for Entrée students, each applicant for admission to the Graduate School is required to take the Graduate Record Examination or, in the case of a prospective MBA student, the Graduate Management Admission Test. Regular admission to graduate study requires a satisfactory score on the General Test of the GRE, or, for MBA applicants, a satisfactory score on the GMAT.
2. Regular admission to a doctoral program requires a satisfactory score on the General Test of the GRE. A student with an unsatisfactory score may be admitted to the Graduate School, if otherwise qualified, but may not be considered to be in a doctoral program until submission of a satisfactory score or demonstration to the satisfaction of the major department and the Dean of the Graduate School of the capability to complete degree requirements successfully. The student's major department decides which courses taken by the student before official admission to the program may be applied toward the satisfaction of degree requirements.
3. Arrangements for the computer-adaptive GRE and GMAT must be made through Sylvan Technology Centers (please consult the GRE and GMAT booklets or websites).
4. A student admitted in conditional status cannot have the status changed to "Regular" without presenting minimally acceptable scores on the GRE or GMAT, in addition to other requirements (see D.6.b. above).
5. International students must present a TOEFL score of at least 550 on the written examination, 213 on the computer-based examination, or 81 on Internet-based examination prior to admission to the Graduate School. Upon entering the University, they may also be required to take the ESOL (English for Speakers of Other Languages) placement test administered by the Department of Modern Languages. Those students who place below the minimum established scores will be required to take ESOL 402 (Advanced Pronunciation and Listening Comprehension) and/or ESOL 403 (Advanced Expository Writing). International graduate assistants may have additional English-language requirements.

II. CLASSIFICATION

A. DEGREE STUDENT

A degree student is one who has been admitted to the Graduate School and who has been accepted by a department for a program of study leading to the awarding of a graduate degree.

B. SPECIAL NON-DEGREE STUDENT

1. A Special Non-Degree student is one who has been admitted to the Graduate School for graduate study, but who has not been admitted to a graduate degree program.
2. The courses taken by a Special Non-Degree student may or may not be applicable to a degree at a later date.
3. The course of study of a Special Non-Degree student is subject to approval by the Dean of the Graduate School.
4. A Special Non-Degree student must meet the prerequisites for each course taken.

C. ENTRÉE STUDENT

An Entrée student is one who has been admitted to Graduate School in Entrée status for study which does not lead to a graduate degree. This program may not be used to circumvent Graduate School regulations; some departments do not permit students to enroll in this status.

D. CHANGE OF CLASSIFICATION

No student may change graduate or undergraduate classification, doctoral or master's level, or major after the fourteenth day of classes (seventh in summer).

III. REGISTRATION AND SCHEDULING OF COURSES

A. ELIGIBILITY FOR REGISTRATION IN THE GRADUATE SCHOOL

1. The University holds it to be the responsibility of the student to ascertain scholastic eligibility and to be enrolled in a particular semester or summer session. It reserves the right to cancel the registration of an ineligible student without refund of fees at any time during the semester or summer session or to cancel retroactively any credit earned by a student who was ineligible or who did not comply with Graduate School requirements.
2. A student who is not in regular admission status at the time of application for candidacy (normally after completion of 12 hours) is ineligible to continue in the Graduate School. All students are required to apply for candidacy immediately after completion of the number of hours specified by the department.
3. A graduate student becomes ineligible to continue graduate study and to register for any semester or summer session if the student fails to meet the following requirements with respect to grade-point averages:
 - a. The student must maintain a 3.0 GPA at all times.
 - b. The student may not receive more than two grades of C. In no case may a student earn more than 6 credit hours carrying a grade of C.
 - c. The student may receive no grade lower than C.

B. REGISTRATION

The University has implemented an integrated student information system (ISIS), and registration is through the web. Detailed instructions for registration can be found on the University's website. Each graduate student is responsible for following them.

C. LATE REGISTRATION

1. Normally, the last date on which a student may register for credit in a regular semester is the 4th day of class or a summer session will be the 2nd day of class. Under special circumstances, the Dean of the Graduate School, after receiving approval from appropriate faculty members, may grant permission for a student to register late.
2. Students who register and pay fees at this time will be assessed a non-refundable Late Registration Fee.

D. REGISTRATION AS AN AUDITOR

1. A student registered for a course may change registration from credit to audit or audit back to credit with the permission of the instructor, the department head, and Dean of the Graduate School having jurisdiction over each course to be audited. Forms for this change are available in the office of the student's academic dean. The deadline for changing registration from credit to audit or audit back to credit is the same as the last day to drop a course with a grade of W.
2. An auditor is expected to attend all classes and participate in all course activities except the final examination. An auditor who does not attend all classes and participate in all course activities will be dropped from that class and will be assigned a grade of "W."
3. An auditor or a regular student auditing a course is not permitted to take an advanced placement examination or credit examination on work audited.
4. An audited course may be repeated for credit.

E. CANCELLATION AND RESIGNATION

1. A student who registers in the University and who must cancel registration after late schedule adjustment ends must inform the Graduate School Office of this intention.
2. A student's registration may be cancelled if payment has not been received or if arrangements have not been made to pay fees and fines incurred at the University.
3. A student who resigns voluntarily from the University after classes have begun must initiate resignation procedures in the Graduate School office.

F. REGISTRATION IN UNIVERSITY COLLEGE

All regulations which apply for regular registration in Graduate School shall apply for registration in University College classes.

G. SEQUENTIAL SCHEDULING OF COURSES

1. If a student's major department recommends that courses be taken in a particular order, the student is advised to follow the recommended sequence as closely as possible.
2. Should a student do unacceptable work in a course necessary for successful completion of a degree, the student is advised to repeat that course the next time it is offered, or as soon as possible.

H. CHANGE OF SCHEDULE

1. A student who wishes to change a schedule of registered classes must apply for permission to the Dean of the Graduate School and to the advisor.
2. The last date on which a student may make a schedule adjustment is the fourth day of a regular semester and the second day of a summer session.
3. The deadlines for dropping a course or for resigning are available in the calendar of events on the University's website. After these dates a student may not drop a course or resign from the University. In extraordinary cases a student may appeal to the Dean of the Graduate School. Extraordinary cases might include, but are not limited to, prolonged medical problems, serious accidents, or death in the immediate family. It is the student's responsibility to provide documented evidence of the reasons for the request. Extraordinary cases shall not include dissatisfaction with an anticipated grade or the decision to change a major.

IV. GRADES

A. GRADE POLICIES

University policies concerning procedures for awarding and recording grades generally apply to students enrolled in the Graduate School.

B. SYSTEM OF GRADING

1. The grade of A represents work of superior quality; B represents work of good quality; C represents work of the lowest quality for which graduate credit is given; D represents unsatisfactory work; and F represents failure.
2. The symbol "W" indicates the resignation or cancellation of the student from the university or the dropping of a course prior to the deadline printed in the Schedule of Classes. The course and grade will be posted to the student's permanent record but will not be included in the calculation of either the semester or the cumulative average.
3. Incompletes
 - a. A student who is doing passing work but due to unforeseen circumstances does not complete the prescribed course work may receive the grade of I at the discretion of the instructor. As a course grade the I yields neither credit nor quality points applicable toward a degree. The grade of I may be converted to a grade of A, B, C, D, F, NC, or CR upon the completion of course requirements, as specified by the instructor, and only upon submission of an official change-of-grade card. The grade of I must be changed by the date designated as posted in the calendar of events on the University's website, or it will automatically be changed to an F. Because a grade of F makes a graduate student ineligible to attend graduate school, the student will be permitted to complete that semester only.
 - b. Unusual circumstances may permit an extension of the deadline for completing an I. The request for such an exception must be initiated by the student and signed by the instructor, the department head, the Academic Dean of the course, and the Dean of the Graduate School. The extended deadline may not be beyond the deadline for dropping with a grade of W in the following regular semester.
 - c. Unusual circumstances may permit the assignment of a permanent I. The student must initiate the request for this permanent grade PI. This request must be approved on a change of grade card by the instructor, (if possible) the department head, the Academic Dean of the course, and the Student's Academic Dean. This request must be received in the Registrar's Office prior to the deadline stated above. In b. and c., it will be the student's responsibility to provide documented evidence of the reasons for the request.
4. The symbols S (Satisfactory), U (Unsatisfactory), and W (Withdrawal) are used for thesis, dissertation and XXXX 594, Research. The actual awarding of credit for thesis or dissertation is deferred until the thesis or dissertation has been received and officially accepted by the Dean of the Graduate School.
5. The symbols S, U, and W are used for XXXX 899, examinations only. This three-credit course is required of all Master's students taking examinations, oral, and/or written, who are not registered for any other course. Credits earned in the course are not applicable toward the degree.
6. The symbol AU signifies that the course has been officially audited. The deadline for changing from credit to audit or audit to credit will be that for dropping a course or resigning from the University.
7. The symbol NR indicates that the instructor reported no grade, but that the student was officially registered for the course and did not officially withdraw. Until such time as a correction is made, the NR is counted as an F, and the graduate student remains ineligible to continue graduate study.

C. FINAL GRADE REPORTS

A final grade in each course a student takes is given at the end of each semester or summer session. This grade is recorded in the Office of the Registrar and becomes a part of the student's permanent record.

D. CHANGE OF GRADE

1. For the correction of any error made in the reporting of course grades, a student should contact the instructor. If a change of grade is merited after grades are finalized, the instructor will process a change of grade card.
2. A student may appeal a grade under the procedures specified in the Guidelines for Appealing Unfair and/or Capricious Final Grades.

V. COURSE AND CREDIT REGULATIONS

A. CLASSIFICATION OF COURSES

(Courses numbered below 400 are offered only for undergraduate credit.)

400-499 These course numbers may carry a G, which means that graduate students must take them for graduate credit. Instructors are required to distinguish different assignments and grading practices for graduate and undergraduate students in 400G courses.

500-699 Graduate-level courses open only to graduate students.

B. COURSE LIMITATIONS AND RESTRICTIONS

1. General limitations on graduate course-work include the following:
 - a. Only courses approved by the Graduate Council may be taken for graduate credit.
 - b. A student cannot receive graduate credit for any course without having been admitted to the Graduate School prior to enrolling in the course. A student cannot receive graduate credit for any course in which a freshman or sophomore student is enrolled.
2. Graduate credit cannot be earned for a course previously completed for undergraduate credit with an undergraduate grade recorded. The course may not be rescheduled for graduate credit, nor may the undergraduate credit be changed retroactively to graduate credit.
3. Credits applied toward a non-doctoral degree may not be older than six years.
4. Graduate credit cannot be earned through credit examinations.
5. A non-doctoral student may earn a maximum of 6 semester-hours of graduate credit for application toward a graduate degree in courses in the sequence 497-498, 597-598, and 697-698 or in other individual or special-studies courses. A doctoral student may earn a maximum of 12 hours of credit in such courses for application toward the Ph.D. degree.

C. COURSE LOAD

1. The maximum course load for a graduate student is 16 semester hours during a regular semester or 9 during a summer session. Under special circumstances, a student registered for graduate work may also pursue undergraduate courses for undergraduate credit. In such cases, the maximum number of hours, both graduate and undergraduate, is 16 during a regular semester or 9 during a summer session.
2. To qualify as a full-time student, a graduate student must carry a minimum of 9 semester credit hours during a regular semester and a minimum of 6 semester credit hours during a summer session.
3. No specific minima are specified for part-time students. The course load for a part-time student shall be adjusted according to the time devoted to graduate classes, research, and study.
4. A graduate assistant must be a full-time student during any semester in which an assistantship is held. The academic load for a graduate assistant shall be adjusted to fit the particular situation. Assistants with full assistantship responsibilities must take 9 semester hours of graduate-level courses during a semester.

D. TRANSFER OF CREDIT

1. The Graduate School recognizes the appropriateness of accepting credits completed at another regionally-accredited institution for course work there that is equivalent to course work here. The principle involved is one of correspondence between credit asked for and credit offered in the

Graduate School. A maximum of 12 semester hours of transfer graduate credit may be applied toward fulfillment of requirements for the master's degree. The number of hours transferred may not, however, exceed one-third of the semester hours required for the degree. The maximum number which can be transferred in a 30 or 33 hour program is 9. An unspecified number of semester hours of transfer graduate credit may be applied toward fulfillment of requirements toward the doctoral degree, but the majority of credits toward a graduate degree must be earned at UL Lafayette. Transfer of graduate credit requires the approval of the Dean of the Graduate School and is subject to the following conditions:

- a. The student must be a degree-seeking student in regular admission status. A student may not have graduate credits transferred to the University of Louisiana at Lafayette while in conditional status.
 - b. The student shall have earned the credits in residence as a graduate student in an accredited United States institution that regularly grants the master's degree and/or the Ph.D. degree. Transfer credits from non-U.S. institutions may be granted upon special petition to the Graduate Appeals Committee. In such cases, the evidence presented in favor of transfer shall be extremely persuasive.
 - c. The credits must not have been earned after having become ineligible to continue graduate study at the University of Louisiana at Lafayette.
 - d. Each course transferred must be acceptable to the student's major department.
 - e. A grade of B or better must have been earned in each course.
 - f. Time limitations must be satisfied. Credits applied toward a master's degree may not be older than six years; seven years for a doctoral degree.
 - g. The application for transfer must be made in writing according to the procedure specified by the Graduate School office.
 - h. A University of Louisiana at Lafayette graduate student wishing to earn course credits at another institution to be applied toward completion of degree requirements is urged first to secure prior written permission from the major department and the Dean of the Graduate School.
2. Transfer of credit shall not reduce minimum residence requirements.
 3. Written notification of the action taken on a transfer request will be given to the student.
 4. Transfer of graduate credit does not automatically mean application of such credit toward completion of degree requirements. Use of transferred credits for a curriculum other than the one for which they were originally intended requires approval of the department concerned and the Dean of the Graduate School.
 5. A student wishing to use credits earned while in Entrée status toward completion of degree requirements must have such credits transferred to the degree program, meeting all the appropriate conditions specified above. No more than 2 courses taken while in Entrée status can be applied to the fulfillment of degree requirements.
 6. In the case of multiple master's degrees, as many as 9 semester hours of graduate credit earned at a regionally accredited American institution and applied toward one master's degree may be used towards a second master's degree. The department in which the second degree is pursued and the Dean of the Graduate School must both approve the request. Credit toward a second master's degree may not be at variance with regulations regarding residence requirements, grade-point average, or restrictions on transfer of credit.

VI. GRADUATE STUDENT RECORDS AND ELIGIBILITY

A. STUDENT'S PERMANENT FILE

In order to determine a student's eligibility for admission to and continuation in the graduate program at the University of Louisiana at Lafayette, a permanent file is maintained on each person who applies for admission to the Graduate School. Progress in graduate study for each degree or non-degree student is recorded regularly in the file.

B. QUALITY POINTS

1. A student's cumulative average is computed by assigning quality points to the various course grades, multiplying the appropriate quality-point figure by the credit assigned to the individual courses completed, summing the results, and dividing this total by the total number of credits for all courses.
2. The quality points assigned to each grade are as follows:

Grade	Quality Points Per Credit Hour
A	4
B	3
C	2
D	1
F and all other grades	0

3. Any course for which graduate credit has been earned at the University of Louisiana at Lafayette and any course which has been accepted for transfer credit by the Graduate School must be used in computing grade-point averages, both cumulative and in the major field.

C. TRANSCRIPTS

1. Application for a transcript should be made in the Office of the Registrar.
2. Transcripts may not be released until all indebtedness to the University is paid in full.

VII. GRADUATE STUDENT APPEALS

1. Graduate students who do not meet requirements for registration are not eligible to enter, reenter, or continue in Graduate School. The only method to gain entry or reentry is through appeal to the Graduate Council Committee on Appeals. It is for the student who wishes to gain eligibility to enroll to request the committee to hear an appeal by:
 - a. Presenting a letter of petition to the major department or program outlining the reasons for appealing the case.
 - b. Submitting a letter of recommendation signed by the chair of the appeals committee in the program where the student was or wishes to be. Each program must have an appeals committee; if there is no written recommendation from this committee, the case will not be heard by the Graduate Council Committee. A student may present additional letters of recommendation regarding academic ability and maturity. These letters may come from faculty members who have recently taught the student, as well as from employers.
2. Students who are not in regular status are ineligible to hold assistantships. The department or program is responsible for verifying eligibility for assistantships.
3. Students who wish to transfer credits older than six years or who do not complete a degree within the specified time (six years for a master's degree, seven years for a doctorate) must submit a request in writing for a time extension to the graduate coordinator. If the graduate coordinator approves the transfer or time extension, a notation of approval is submitted to the Graduate School for action by the Dean.

VIII. GRADUATE HONORS**HONORS CONVOCATION**

The President of the University of Louisiana at Lafayette shall designate a day in the Spring Semester to be known as "Academic Honors Day." At the convocation held on that day, superior graduate students in the following categories shall be honored:

- A. Currently enrolled degree students in regular admission status who have completed 9 through 23 hours of graduate credit and who have maintained a grade-point average of 3.8 or above up to the Spring Semester. A student in this category may be honored once during any course of study.

- B. Currently enrolled degree students in regular admission status who have completed at least 24 hours of graduate credit and who have maintained a grade point average of 3.8 or above up to the Spring Semester. This honor may be received once during any course of study.

IX. GENERAL REQUIREMENTS FOR DEGREES

1. It is the responsibility of each graduate student to ascertain and meet the degree requirements of the Graduate School.
2. Each student must be officially accepted as a degree student, as specified in section II.A.
3. Each degree student must present satisfactory scores on the GRE or the GMAT.
4. Each degree student must apply for admission to candidacy in accordance with the deadlines specified in the regulations governing the degree in question. Therefore, each degree student must be recommended for the degree by the Graduate Council.
5. Each degree student must satisfactorily complete the required comprehensive, general, and/or final examinations.
6. Each degree student must meet the appropriate residence requirements.
7. Each degree student must meet minimum grade requirements, complete all prescribed courses, and fulfill all departmental requirements.
8. Each degree student must complete the Graduation Check-List and return it to the Graduate School by the end of the first week of the last semester of graduate work.
9. Each degree student must pay the diploma fee by the end of the first week of the last semester of graduate study.
10. A candidate for a graduate degree must be present at the graduation exercises at which the degree is scheduled to be conferred, unless excused in advance in writing by the Dean of the Graduate School.

X. EDUCATIONAL ASSESSMENT

UL Lafayette reserves the right to use educational assessment devices in any traditional or distance-learning course. Educational Assessment is defined as the systematic collection, interpretation, and use of information about student characteristics, educational environments, learning outcomes and stakeholder satisfaction to improve program effectiveness, student performance and professional success. Participation in such assessment activities, when they are offered or used, is a required activity of all students.

XI. HOUSING REGULATIONS

Applications for rooms in University residence halls and apartments are processed in the order that applications and deposits are received. Date of application and receipt of the \$50.00 deposit and \$50.00 non-refundable application fee establish priority. Louisiana residents are given preference over out-of-state students. Applications for Legacy Park, the apartment-style complex, must be accompanied by a \$200.00 deposit. Refund of the deposit will not be made unless cancellation is received thirty days prior to the opening of the session for which the reservation was made.

Students must contract with housing on a yearly basis. Students entering into a contract will be required to live in the residence halls for the entire academic year (August to May). Residence hall accommodations are operated on a room, meal, phone, and cable plan. All students residing in residence halls and apartments must purchase a meal ticket. Installment payment plans are available for students residing on campus. For application and information contact the Housing Office.

Applications for apartments for married students are processed in the order that applications are received with preference given to Louisiana residents. The deposit is not required until apartments are assigned. Application fee of \$50.00 required.

The University is not in any way involved with off-campus housing.

XII. MEDICAL RECORD REGULATIONS

Louisiana Law requires that students be immunized against preventable and communicable disease, including but not limited to measles, mumps, rubella, tetanus-diphtheria, and meningitis. New students born in 1957 and afterward must provide proof of immunization on the designated form. To assist the University, the student must make known any significant medical condition and obtain an appropriate description of the condition from a physician.

XIII. PARKING REGULATIONS

An automobile that is operated and parked on campus must be registered at the Parking and Transit Office. Parking and Transit has three types of parking lots: prime, non-prime and residence hall zones. Prime lots are located on campus; less expensive non-prime zones are located off campus. Residence hall zones are limited to residence hall students with vehicles. Residents must purchase a permit at the Parking and Transit office each semester. The only exception is residents of Legacy Park, who purchase a permit yearly. To obtain a parking permit, students must present vehicle registration, pictured ID, PID number, and appropriate fee. Cajun Field and zone 40 (Bourgeois Hall) no longer require a permit to park.

The UL Lafayette Transit System provides eleven passenger buses to transport users to the center of campus. Parking and Transit also operates two evening shuttles for student convenience.

Traffic regulations are available on the Parking and Transit website <http://www.parking@louisiana.edu>. Tickets may be appealed on the website <http://www.parking@louisiana.edu>; however, all such appeals must be filed within ninety-six hours following the issuance of the ticket. Violations may be paid at the office in Olivier Hall, Room 100, or online at <http://www.remit-online.com/337003>.

XIV. RESIDENCY REGULATIONS

A. REQUIREMENTS

Because resident classification is an important part of fee determination, admission regulations and other policies of the colleges and universities, it is important that the University have fair and equitable regulations which can be administered consistently, respecting the interests of both the students and the taxpayers of Louisiana. It is the responsibility of the student to provide the institution with such evidence that is deemed necessary to determine residence status.

B. DEFINITION OF RESIDENCY

Adapted from the University of Louisiana System Board of Supervisors Regulations Published in the *Louisiana Register*, Vol. 10, No. 11, 11/20/84. House concurrent Resolution No. 226 of 1986.

A resident student for tuition purposes is defined as one who has abandoned all prior domiciles and has been domiciled in the State of Louisiana continuously for at least one full year (365 days) immediately preceding the first day of classes of the term for which resident classification is sought. "Domicile," as the term is used in the context of residence regulations, is defined as an individual's true, fixed, and permanent home and place of habitation at which the individual remains when not called elsewhere for labor, studies, or other special or temporary purposes, and the place to which the individual returns after an absence. A nonresident student for tuition purposes is a student not eligible for classification as a resident.

The individual's physical presence within this State for one year must be associated with the substantial evidence that such presence was with the intent to maintain a Louisiana domicile. Physical presence within the State solely for education purposes without substantial evidence of the intent to remain in Louisiana will not be sufficient for resident classification regardless of the length of time within the State.

However, discreet categories of individuals may be defined as special residents if such action is deemed to be in the best interest of Louisiana or as mandated from time to time by federal or state government.

C. DETERMINATION OF STATUS

The residence status shall be determined in accordance with the University of Louisiana Board of Supervisors rules and shall be based upon evidence provided in the application for admission and related documents. Residence status shall be determined by the Office of the Registrar and or admissions officer after the completed application for admission has been submitted. The rules shall be based primarily on the location of the home and the place of employment. Residence status may not be acquired by an applicant or student while residing in Louisiana for the primary purpose of attending school. Residence tuition, for fee purposes only, will be granted to non-resident graduate students registered for three semester hours or less and undergraduate students registered for six semester hours or less in any session, or all non-resident students enrolled in up to six semester hours of graduate or undergraduate courses offered through web-based instruction, when domiciled outside of the state of Louisiana and not enrolled in any other courses at the University. The following conditions may be used in determining residence status:

1. An applicant living with parents is classified as a resident if the parents have established a bona fide residence in Louisiana. Ordinarily a parent is considered to have established a residence in Louisiana if he/she actually resides and is employed full time in the State. A parent who is unable to be employed or who is a housewife may be considered to have established a residence in Louisiana if there is convincing evidence that the person continuously resides in Louisiana. If only one parent qualifies as a resident of Louisiana, the student shall be classified as a resident provided that student resides with the parent who is a resident of Louisiana. An individual who resides in Louisiana and is employed full time in another state may be classified as a resident. In such case, appropriate documentary evidence shall be presented.
2. A student residing with parents who enrolls as a nonresident shall be classified as a resident if his/her parents move to Louisiana and acquire residence as defined in these regulations.
3. A student may be declared a resident if either parent is a graduate of the institution which the student attends.
4. A person may be classified as a resident of Louisiana at the end of twelve consecutive months of residence if he/she has been employed in Louisiana and if during that period he/she has not been registered in an educational institution for more than six semester hours or its equivalent in any semester. A person who is unable to be employed and who has not been registered in any educational institution for more than six semester hours or its equivalent in any semester may acquire residence in Louisiana if there is convincing evidence that he/she continuously resided in Louisiana for twelve consecutive months immediately preceding registration. In order to be eligible for in-state tuition in a given semester, the person must have lived in Louisiana for 12 consecutive months prior to the last day for adding classes for that semester.
5. A student who is married to a Louisiana resident may acquire the residence status of his or her spouse.
6. A person who resides in Louisiana for at least two years, exclusive of military service, and then moves to another state or foreign country shall retain the right to enroll him/herself or any dependents as a resident for a period equal to the number of years he/she resided in Louisiana, but the right shall expire upon the person's residing for a period of two years in another state or foreign country.
7. A member of the armed forces currently stationed in Louisiana and his/her dependents shall be classified as Louisiana residents. A serviceperson who was stationed in Louisiana immediately prior to release from active duty may enroll him/herself or his dependents as residents during a period not to exceed six months after the date of release provided that the term of active duty shall have been no less than 12 consecutive months.
8. A member of the armed forces who was a resident of Louisiana immediately prior to entering the armed forces shall retain the right for him/herself or any dependents to be classified as residents, as long as he/she is in the armed forces and for a two-year period after leaving the armed forces.
9. A resident of Louisiana shall not lose the right to be classified as a resident during periods of employment in a foreign country.
10. An alien who has been lawfully admitted to the United States for permanent residence as an immigrant (proof of such status shall be possession of his Form I-551-Alien Registration Receipt

Card or passport officially stamped "approved as resident alien") and who has established residence under any of the foregoing provisions shall be declared a resident of the State.

D. APPEAL COMMITTEE

The president of each institution shall be authorized to appoint a Residence Rules Appeal Committee. Any student classified as a nonresident may appeal such classification to this committee. Interpretations on residence qualifications may be submitted to Board Staff for clarification.

E. INCORRECT CLASSIFICATION

All students classified incorrectly as residents are subject to reclassification and payment of all nonresident fees not paid. If incorrect classification results from false or concealed facts by the student, the student is also subject to University discipline.

XV. FEE REGULATIONS

A. REGISTRATION FEES

Registration fees are payable in person at the Student Cashiers Office, by phone, by web, or by mail to University of Louisiana at Lafayette, P. O. Box 44444, Lafayette, LA 70504-4444. The University reserves the right to change any of its fees and charges without prior notice. Fees for a given academic term are posted on the University's web site.

Each semester or session the University will establish a deadline date for payment of tuition and fees for pre-registered classes. This deadline will be published in the semester or session Schedule of Classes. If tuition and fees are not paid for pre-registered classes by the deadline, then the student's class schedule will be dropped. These students will not be held liable for the payment of pre-registered classes.

Students who register for courses after the deadline will be assessed a \$50.00 late registration fee.

Students who register for courses and who do not pay or make arrangements to pay tuition and fees by the fourteenth class day (seventh in the summer) will be considered NON-PAY (NP). See the Fee Policy in the Schedule of Classes for details regarding non-pay students. The non-pay student, whose classes have been dropped, must pay tuition and fees in full at the Student Cashier's Center in Coronna Hall and bring a copy of the paid receipt to the Registrar's Office for reinstatement into classes.

The non-pay student is not considered a student of the University during the non-pay status.

For the Fall and Spring Semesters undergraduate students carrying 12 hours or more and graduate students carrying 9 hours or more are assessed as full-time students. For the Summer Session all students are assessed as full-time if they carry 6 or more hours.

B. RESIGNATION REFUND POLICY

A student who officially resigns from the University after completing registration may obtain a fee refund according to the following schedule:

Date of Resignation	Registration and Student Assessed Fees
Through First Class Day	100%
Next Seven Class Days	90%
Next Eleven Class Days	50%
Next Eighteen Class Days	25%

The student insurance fee, late registration fee, freshman orientation fee, reinstatement fee, and international service fee are not refundable.

C. ADD/DROP FEE ADJUSTMENT POLICY

Students who apply for and are permitted a reduction in hours scheduled during the first four class days (two class days in Summer) will be issued a full refund of the per credit hour fee for the number of hours dropped and applicable student self-assessed fees. No refunds will be issued for a reduction in credit hours after this date. Students who add classes during the schedule adjustment period are required to pay the additional fee assessments by the close of business on the day following the last day of the schedule adjustment period.

D. SPECIAL FEES

Special fees, such as studio use fees, health fees, degree application fees, parking fees, and the like, are listed on the University's web site.

XVI. ACADEMIC HONESTY

A. INTRODUCTION

The University holds that all work for which a student will receive a grade or credit shall be an original contribution or shall be properly documented to indicate sources. Abrogation of this principle entails dishonesty, defeats the purpose of instruction, and undermines the high goals of the University. Cheating in any form will not be tolerated. Students shall be assumed to know the acceptable methods and techniques for proper documentation of sources and to avoid cheating and plagiarism in all work submitted for credit, whether prepared in or out of class.

B. DEFINITIONS OF CHEATING AND PLAGIARISM

Cheating, in the context of academic matters, is the term broadly used to describe all acts of dishonesty committed in taking tests or examinations and in preparing assignments. Cheating includes but is not limited to such practices as gaining help from another person or using unauthorized notes when taking a test, relying on a calculator if such an aid has been forbidden, and preparing an assignment in consultation with another person when the instructor expects the work to be done independently. In other words, cheating occurs when a student makes use of any unauthorized aids or materials. Furthermore, any student who provides unauthorized assistance in academic work is also guilty of cheating.

Plagiarism is a specific type of cheating. It occurs when a student claims originality for the ideas or words of another person, when the student presents as a new and original idea or product anything which in fact is derived from an existing work, or when the student makes use of any work or production already created by someone else without giving credit to the source. In short, plagiarism is the use of unacknowledged materials in the preparation of assignments. The student must take care to avoid plagiarism in research or term papers, musical compositions, science reports, laboratory experiments, and theses and dissertations.

C. PENALTIES

Cheating and plagiarism are serious offenses. The minimum penalty for a student guilty of either dishonest act is a grade of "zero" for the assignment in question. The maximum penalty is dismissal from the University.

D. UNIVERSITY POLICY FOR INTELLECTUAL PROPERTY

The University of Louisiana at Lafayette administers and asserts ownership of intellectual property as allowed in the University of Louisiana System Intellectual Property Policy Intellectual Property and Shared Royalties (Policy Number FS.III.VI.-1, Effective July 1, 2002). This policy does apply to graduate students. It can be accessed electronically on the Office of Research and Sponsored Programs website at <http://orsp.louisiana.edu>

E. THESIS/DISSERTATION COPYRIGHT OWNERSHIP AND OWNERSHIP OF RELATED INTELLECTUAL PROPERTY

As provided in the University of Louisiana System Intellectual Property Policy Intellectual Property and Shared Royalties, the University does not assert ownership of Traditional Academic Copyrightable Works, such as student theses and dissertations. However, the University, through the Office of the Vice President for Research, may assert ownership of ideas conceived by a faculty member or data that are generated through sponsored research or faculty initiated experiments that are described in a Traditional Academic Copyrightable Work.

F. RIGHTS TO THESIS/DISSERTATION DATA AND AUTHORSHIP OF JOINT PUBLICATIONS

It is important that graduate students planning to write a thesis or dissertation seek information from their mentor and/or professor as to the expectations of authorship, order of listed authors, and assignment of copyright for any Traditional Academic Copyrightable Work at the beginning of any collaboration which may result in jointly published works.

XVII. INSTITUTIONAL POLICY ON THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act of 1974 is a Federal law stating that a public written institutional policy and a statement of adopted procedures shall cover the privacy rights of students. The law provides that the institution will maintain the confidentiality of student education records.

The University of Louisiana at Lafayette accords all the rights under the law to students who are declared independent of their parents. No one outside the institution shall have access to a student's educational records nor will the institution disclose any information from a student's records without the student's written consent, although it may divulge this information to authorized personnel within the institution, to officials of other institutions in which students seek to enroll, to persons or organizations providing students financial aid, to agencies carrying out an accreditation function, to people in compliance with a judicial order, to people in an emergency in order to protect health and safety, and to parents who present sufficient evidence that the student is dependent upon them for their financial support (for example, Income Tax Form 1040). These exceptions are permitted under the Act.

Within the University of Louisiana at Lafayette community, only those people acting in the students' educational interest are allowed access to student education records. These people include personnel in the Office of the Registrar, Business Office, Financial Aid Office, the Office of Admissions, Academic Deans, academic department heads, academic advisors, and other academic personnel within the limitations of their need to know.

At its discretion the institution may provide Directory information in accordance with the provisions of the Act. Directory information at the University of Louisiana at Lafayette includes: student name, address, telephone number, date of birth, major field of study, dates of attendance, degrees received, academic awards and honors, the most recent previous education agency or institution attended by the student, participation in officially recognized activities and sports, and weight and height of members of athletic teams. Directory information on currently enrolled students will generally be disclosed only by the Office of the Registrar and the Office of the Dean of Students. Directory information on students not currently enrolled will be disclosed in the Office of the Registrar. Directory information for students not currently enrolled consists of student name, home address, date of birth, dates of attendance, degrees received, and the most recent previous educational institutions attended. Students may withhold Directory information by filing an official request for non-disclosure in writing within the first week of classes. Forms for this purpose may be obtained from the Office of the Registrar.

Requests for non-disclosure will be honored by the University for only one semester; authorization to withhold Directory information must be filed each semester in the Office of the Registrar.

The law provides students with the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they feel the decisions of the hearing panels to be unacceptable.

The following officials at the University of Louisiana at Lafayette have been designated to coordinate the inspection and review procedures for student education records: permanent academic records, the Registrar; graduate admission records, the Dean of the Graduate School; personnel records, the Dean of Students; other academic records, the Academic Deans; and financial records, the Vice President for Business Affairs.

Students wishing to review and inspect their education records must make written requests to the respective department head or division head of the department listing the item or items of interest. Only records covered by the Act will be made available, as soon as possible but always within forty-five days of the request.

Students may not inspect and review the following as outlined by the Act: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived in writing their rights to inspect and review; or education records containing information about more than one student, in which case the University will permit access only to that part of the record which pertains to the inquiring student. The University is not required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.

Any student who believes that records contain information that is inaccurate or misleading or are otherwise in violation of privacy or other rights may discuss problems informally with the respective Department or Division Head. If the decisions are in agreement with the student's request, the appropriate records will be amended. If not, the student will be notified within a reasonable period of time that the records will not be amended and why not. The student will then be informed of the right to appeal to the next higher authority (for example, student advisor, department head, dean). If the request is not resolved administratively, the student may request a formal hearing. Student requests for a formal hearing must be made in writing to the individual designated, who will present the case to the appropriate University Committee. The hearing panels which will adjudicate such challenges will be the Graduate Council, the Fee Committee, and the Discipline Committee.

Decisions of the hearing panels will be final, will be based solely on the evidence presented at the hearing, will consist of written statements summarizing the evidence and stating the reasons for the decisions, and will be delivered to all parties concerned. If the decisions are in favor of the student, the education records will be corrected or amended in accordance with the decisions of the hearing panels. If the decisions are unsatisfactory to the student, the student may place with the education records statements commenting on the information in the records or statements setting forth any reasons for disagreeing with the decisions of the hearing panels. The statements will be placed in the education records, maintained as part of the students' records, and released whenever the records in question are disclosed.

Students who believe that the adjudications of their challenges were unfair or not in keeping with the provisions of the Act may request in writing assistance from the President of the University. Students who believe that their rights have been abridged may file complaints with the Family Educational Rights and Privacy Act Office (FERPA), Department of Education, Washington, D. C. 20202, concerning the alleged failures of The University of Louisiana at Lafayette to comply with the Act.

Revisions and clarifications will be published as experience with the law and the University's policy warrants.

REGULATIONS FOR MASTER'S DEGREES

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I. REGULATIONS FOR THE MASTER'S DEGREE

A. GENERAL REQUIREMENTS

To be eligible to receive the master's degree each candidate must:

1. Complete the specified general degree requirements.
2. Complete the number of specified hours of graduate work after admission to candidacy and an acceptable thesis, if required.
3. Satisfy the general and specific requirements for the degree to which the candidate aspires.

B. ADMISSION TO CANDIDACY FOR THE MASTER'S DEGREE

1. Admission to candidacy for a master's degree is recognition of a stage in advancement toward the degree.
2. Prior to the student applying for admission to candidacy, the student's advisory committee must be named according to the procedure established by the department or program concerned. In all cases, the committee must be chaired by a member of the Graduate Faculty. The committee is generally comprised of three to five members. See F. 1. and G. 1. next page.
3. After having completed 12 semester hours of graduate degree credit with a grade-point average of 3.0 or better, a student classified in regular admission status shall submit, on a form provided by the Graduate School office, a written application for admission to candidacy for the Master's degree. Prior to submission of the application, a plan of study must have been approved by the student's advisory committee, each member of which must sign the application for candidacy form before it is transmitted to the Graduate School.
4. The written application for admission to candidacy should be submitted no later than 10 class days after the first day of classes in the next semester in which the student is enrolled after having become eligible to apply for admission to candidacy. The applicant should, if possible, indicate on the application form a tentative thesis title if in a program that requires a thesis. Students who do not submit applications will be blocked from future registration.
5. Each application for admission to candidacy for a master's degree must be approved by the Graduate Dean. No person whose proficiency in English (or French, at the Master's level) is unsatisfactory will be admitted to candidacy.

C. GRADE AND CREDIT REQUIREMENTS

1. Each degree candidate must present acceptable grades in course work specified for a curriculum. Grades must average B or better, both over-all and in the major field. No more than 6 semester hours with a grade of C may be applied toward the fulfillment of degree requirements. A student who earns a third C becomes ineligible to continue in graduate school. In no case may a student earn more than 6 credit hours carrying a grade of C. Some departments have higher grade requirements.
2. At least one-half of the minimum number of semester hours required in the student's curriculum (not including thesis credit) must be taken in courses limited to graduate students.
3. Upon satisfactory completion of a thesis, a total of 6 hours of thesis credit will be applied towards the fulfillment of degree requirements in appropriate programs.
4. A student who does not present a thesis must complete a minimum of 33 semester hours of coursework.
5. To apply toward a master's degree, course credit must be earned within six calendar years. All grades received, even those earned in courses over six years old, are used in computing grade-point averages for graduate work.
6. All degree regulations must be completed within six calendar years following admission to a master's program. Admission is defined as the first semester the student is enrolled in a master's program at the University of Louisiana at Lafayette.
7. A maximum of 6 semester hours of graduate credit for application toward the master's degree may be earned in courses in the sequence 497-498, 597-598, and 697-698 or in other individual or special studies courses.

D. THE RESIDENCE REQUIREMENT

A student must satisfy residence requirements by successfully completing a minimum of 21 hours of degree-program credit on the campus of the University of Louisiana at Lafayette. An exception to this regulation is in the College of Education, where students may satisfy degree requirements by completing successfully a minimum of 18 semester hours of degree-program credit on campus. Other exceptions may be made in recognized distance-learning programs.

E. THE LANGUAGE REQUIREMENT

1. Candidates for the Master of Arts degree with a major in English or French must meet a language requirement.
2. A student may not use a mother tongue in satisfying the language requirement.
3. The language requirement may be met in one of the following ways, as specified by the major department:
 - a. Demonstration of reading proficiency in a language through an examination administered by the Department of Modern Languages.
 - b. Completion under specified conditions of prescribed courses or of a specified number of semester hours in a language.

F. THE COMPREHENSIVE EXAMINATION

1. A comprehensive examination committee is generally comprised of three to five members, at least two must be members of the UL Lafayette Graduate Faculty. In all cases, the committee must be chaired by a member of the Graduate Faculty. The UL Lafayette Graduate Faculty members shall constitute a simple majority of the committee.
2. Each candidate for a master's degree will be required to demonstrate a general, comprehensive knowledge of a field of study. Each department, with the approval of the Graduate Council, specifies the means by which this knowledge is demonstrated. Examples are: a) a written and/or oral comprehensive examination; b) fulfillment of the requirements of an integrative (capstone) course; or c) overall performance on a set of core courses. Students should check the specific degree sections of this catalog.
3. A student's success in fulfilling the comprehensive requirement will be judged, usually in the student's last semester, by a committee approved by the Dean of the Graduate School. If an examination is required, it shall be administered by the committee which usually consists of the members of the faculty who are on the student's advisory committee.
4. The student's success or failure to meet the comprehensive requirement must be reported to the Dean of the Graduate School no later than the date specified in the schedule of classes for the student's final semester.
5. The candidate must be registered as a student during the semester the comprehensive requirement is completed.
6. Satisfactory completion of the comprehensive requirement is determined by unanimous vote of the committee, except where the degree-granting department has specified in the catalog a different standard.
7. In instances where the Dean of the Graduate School is an official member of the student's committee, the Chair of the Graduate Council is designated to receive the report of the committee.
8. A candidate who fails all or part of the comprehensive requirement must register in the Graduate School for at least one additional semester or summer session before being allowed a second attempt. No candidate will be permitted a third attempt.

G. THE MASTER'S THESIS

1. A master's thesis committee is generally comprised of three to five members, at least three members of which must be members of the UL Lafayette Graduate Faculty. The UL Lafayette Graduate Faculty members shall always constitute a simple majority of the committee membership regardless of the number of total committee members. All members of a thesis committee at UL

Lafayette shall be voting members of said committee with the privilege of signing the approval pages of the thesis.

Only graduate faculty members at UL Lafayette may serve as chair and/or co-chair of a thesis committee. This includes adjunct faculty who are members of the UL Lafayette Graduate Faculty.

Committee members from outside the UL Lafayette faculty may serve as outside members of the thesis committee with the privileges of voting and signing the thesis approval pages. These members shall be chosen based upon their qualifications by the thesis committee.

A minimum of three members must participate in the defense of thesis. The Dean of the Graduate School will usually appoint an additional member to represent the Graduate Faculty.

2. The master's thesis demonstrates the student's ability to plan research and to collect, arrange, interpret, and report material about a significant problem. The thesis must be written in a clear style and must exhibit the student's competence in scholarly methods and procedures.
3. Unless specified otherwise, a thesis is required for each master's degree. The thesis is not an integral requirement for the Master of Education, the Master of Music, the Master of Science with a major in counselor education or the Master of Business Administration, although certain of these degrees may on occasion be obtained by writing a thesis. Non-thesis options are available for the Master of Architecture; Master of Arts with a major in English, French, or history; the Master of Science with a major in computer engineering, computer science, communication, engineering, geology, mathematics, nursing, psychology, speech pathology and audiology, and telecommunications.
4. Each student whose degree program prescribes the completion of a thesis must file the subject and tentative title with the Graduate School office at the time of application for admission to candidacy.
5. A student actively engaged in work on a thesis, as determined by the student's thesis chair, must be officially enrolled for thesis credit, whether the student is or is not on campus. Thesis credit will be scheduled and recorded as agreed upon by the student and thesis chair in light of the anticipated amount of time and effort to be devoted to the thesis project.
6. The thesis must be prepared according to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations* available online at <http://gradschool.louisiana.edu>.
7. Before the deadline specified by the advisory committee, each student in a thesis program must present to the committee a typed copy (or copies if prescribed by the major department) of the thesis in draft form. The thesis must be in this form by the time the student takes the portion of the comprehensive examination concerned with research results and with the thesis. Grammatical, typographical, and other minor corrections may be made to the draft thesis subsequent to the taking of the comprehensive examination, but the changes must be made prior to the deadline for submission of the thesis in finished format.
8. The thesis is officially accepted upon unanimous vote of the thesis committee, except in instances where the degree-granting department or administrative unit has specified in writing a different standard of acceptance.
9. Four perfect copies of the thesis in final, finished format must be presented to the Graduate School office for the official approval of the Graduate Dean by the date designated in the schedule of classes. The four required copies must conform to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations*. Students are reminded that "perfect copies" refers to both content and format. Theses not meeting these guidelines will be returned. Failure to meet deadlines may delay graduation.
10. When the final copies of the theses are presented to the Graduate School for the Dean's approval, the student must submit four original certificates of approval signed by each member of the committee, to be signed later by the Dean of the Graduate School and incorporated into each of the four required copies of the thesis. Original signatures in black ink are required on each approval sheet; copies of the approval sheet with duplicated signatures are not acceptable.
11. In instances where the Dean of the Graduate School is an official member of a student's thesis committee, the approval sheet of the thesis will contain the name, rank, and signature of the Chair of the Graduate Council in the space normally provided for the Dean of the Graduate School. In such instances, the Dean will sign only as a member of the thesis committee.

12. A thesis abstract, not to exceed 350 words, must accompany each of the four required copies of the thesis. Two additional copies of the abstract must be furnished to the Graduate School office at the time the thesis is presented.
13. Each candidate must pay a binding charge of \$10.00 per copy for each of the four required copies of the thesis presented to the Graduate School office. In cases where special binding expenses are incurred, the student may be required to pay additional charges. The Graduate School office makes the arrangements for binding. Two copies of the bound thesis are sent to Dupré Library, one for deposit in the Louisiana Room and one for general circulation. One copy is kept by the candidate's major department. The fourth copy is sent to the thesis advisor. Additional copies are to be prepared as specified by the candidate's department, or as desired by the candidate for personal use, at a binding charge of \$10.00 per copy.
14. The University does not copyright theses. A student who wishes copyright must make all necessary arrangements.

H. MASTER'S DEGREE CHECK-LIST

The items in the following check-list are arranged in the order in which they are usually accomplished. Each step must be followed to complete degree requirements. Failure to complete an item may compromise earning the degree.

- o Took Graduate Record Examination prior to first semester of study.
- o (If applicable) Submitted valid teacher's certificate.
- o Prepared outline of curriculum with department head or advisor.
- o (If applicable) Removed conditional status with at least a 3.0 average after the first 12 hours.
- o Had advisory committee appointed prior to applying for admission to candidacy.
- o Admitted to candidacy after 12 hours.
- o (If applicable) Filed subject of thesis at the time of admission to candidacy.
- o (If applicable) Completed language requirement.
- o Completed and turned in to the Graduate School office the Graduation Check-List by the end of the first week of the last semester of graduate work.
- o Paid diploma charge by the end of the first week of the last semester of study.
- o Completed residence requirements.
- o Took the written and/or oral examination as required and within the prescribed time limits.
- o Maintained at least a 3.0 average over-all and in major field, with no more than two grades of C and no more than 6 credit hours with a grade of C in courses to be applied toward the fulfillment of degree requirements, and with at least one-half of the total number of course credits required having been earned in courses limited to graduate students.
- o Completed courses listed on outline of curriculum.
- o (If applicable) Turned in, or made arrangements for turning in, to the Graduate School office by the date approved by the Dean four copies of the thesis in perfect, finished form, each with an approval sheet with original signatures in black ink and a thesis abstract, and two extra copies of the abstract, and paid thesis binding charge of \$10.00 per copy.
- o Attended graduation exercises, unless excused in advance in writing by the Dean of the Graduate School.

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I. REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

A. THE DEGREE OF DOCTOR OF PHILOSOPHY

1. The degree of Doctor of Philosophy is the highest earned degree conferred by nearly all universities. It attests to high attainment in scholarship and in research and is conferred only for work of distinction which displays marked powers of originality.
2. The University of Louisiana at Lafayette offers doctoral-degree programs in applied language and speech sciences, environmental and evolutionary biology, cognitive science, computer engineering, computer science, English, Francophone studies, and mathematics. Departmental or program requirements for the degree vary considerably, but in no department is the degree awarded solely for study over a prescribed period of time or for merely meeting the minimum requirements summarized below.
3. To be eligible to receive the Ph.D. degree a student must:
 - a. Complete the specified general degree requirements.
 - b. Demonstrate completion of the equivalent of six full semesters of graduate study and research beyond the bachelor's degree.
 - c. Complete an acceptable dissertation after being admitted to candidacy for the degree.
 - d. Satisfy the general and specific departmental or program requirements for the degree.

B. ADMISSION TO A DOCTORAL PROGRAM

1. A student becomes an applicant for the doctorate upon admission to the Graduate School and upon acceptance to pursue the degree by a department or program offering a doctoral program.
2. Tenured University of Louisiana at Lafayette faculty above the rank of instructor may not be admitted into the University of Louisiana at Lafayette doctoral programs.

C. ADVISORY COMMITTEE

Each department or program sets policies regarding the establishment of advisory committees for students.

D. PRELIMINARY EXAMINATION

To aid in the planning of the student's program of study, departments or programs require an interpretive examination or evaluation procedure of the student for the primary purpose of determining weaknesses and strengths in the student's preparation. This examination may be given during the student's first semester. The examination is usually waived in the case of students who have earned the master's degree in the same department or program.

E. DISSERTATION COMMITTEE

1. The dissertation committee is responsible for supervising the preparation of the student's dissertation, for scheduling and administering the final examinations, and for forwarding the Final Report to the Dean of the Graduate School. At such time as the student's advisory committee requests, the Dean of the Graduate School will approve, upon departmental or program recommendation, a dissertation committee.
2. A doctoral dissertation committee is generally comprised of three to five members, at least three members of which must be members of the UL Lafayette Graduate Faculty. The UL Lafayette Graduate Faculty members shall always constitute a simple majority of the committee membership regardless of the number of total committee members. All members of a dissertation committee at UL Lafayette shall be voting members of said committee with the privilege of signing the approval pages of the dissertation.
Only graduate faculty members at UL Lafayette may serve as chair and/or co-chair of a dissertation committee. This includes adjunct faculty who are members of the UL Lafayette Graduate Faculty.

Committee members from outside the UL Lafayette faculty may serve as outside members of the dissertation committee with the privilege of voting and signing the dissertation approval pages. These members shall be chosen based upon their qualifications by the dissertation committee.

In addition, the committee must include adequate representation from the candidate's major field, and secondary field (if any). A minimum of two members in addition to the chair must participate in the defense of dissertation. The Dean of the Graduate School will usually appoint an additional member to represent the Graduate Faculty.

F. GENERAL COMPREHENSIVE EXAMINATION

1. A general comprehensive examination covering all areas of study undertaken by the student is required of each applicant for the doctorate. The examination must include a written portion and may include an oral portion at the discretion of the major department or program.
2. The applicant should schedule the general comprehensive examination at the time specified by the department or program. The structure and composition of the examining committee is at the discretion of the department or program. A comprehensive examination committee is generally comprised of three to five members, at least two must be members of the UL Lafayette Graduate Faculty. In all cases, the committee must be chaired by a member of the Graduate Faculty. The UL Lafayette Graduate Faculty members shall constitute a simple majority of the committee.
3. Satisfactory completion of the general comprehensive examination requirement shall be determined by vote of the examining committee, with no more than one member dissenting, unless the degree-granting department or program has specified in writing a different standard.
4. A candidate who fails the examination must register in the Graduate School for at least one additional semester or summer session before being given a second examination. No candidate will be permitted a third examination.

G. ADMISSION TO CANDIDACY FOR THE DOCTOR OF PHILOSOPHY DEGREE

1. Admission to candidacy for the Doctor of Philosophy degree is recognition of a stage in advancement toward the degree.
2. Immediately after satisfactory completion of the general comprehensive examination and language requirement, the student shall make application for admission to candidacy on the form available in the Graduate School office. Departmental regulations stipulate whether a prospectus is required. If it is required, the appropriate form must be signed by the student, the committee members, and the chairman of the department or program. A copy must be on file in the Graduate School.
3. Each application for admission to candidacy must be approved by the Graduate Dean. No person whose proficiency in English (or French, in Francophone studies) is unsatisfactory will be admitted to candidacy.

H. GRADE, CREDIT, AND TIME REQUIREMENTS

1. Each degree candidate must complete at least 72 hours of graduate credit subsequent to earning the bachelor's degree; at least 48 of these hours must be in non-dissertation course work. It is the student's responsibility to contact the graduate advisor to determine the acceptability of previous course work. The Southern Association of Colleges and Schools requires that the majority of the credits applied toward the degree be earned through instruction at the institution granting the degree.
2. Each degree candidate must present acceptable grades in the course work specified for the curriculum. Grades must average B or better, both overall and in the major field. No more than one course in which a grade of C has been earned may be applied toward the fulfillment of degree requirements.
3. At least one-half of the minimum semester hours required of each degree candidate (not including dissertation credit) must be in courses limited to graduate students. In some instances (for example, mathematics) the student may be required to earn a higher percentage of semester hours in courses at the 500 and 600 levels.

4. Upon satisfactory completion of the dissertation, a minimum of 24 semester hours of dissertation credit will be applied toward the completion of degree requirements.
5. All degree requirements must be completed within seven calendar years following admission to a Ph.D. program. Admission is defined as the first semester the student is enrolled as a Ph.D. student at the University of Louisiana at Lafayette.
6. A maximum of 12 semester hours of graduate credit for application toward the Ph.D. degree may be earned in courses in the sequences 497-498, 597-598, and 697-698 or in other individual or special studies courses.

I. RESIDENCE REQUIREMENT

The minimum residence requirement shall be two semesters of full-time consecutive graduate study, not including summer sessions. The student should consult the department or program to determine whether there are additional residence requirements.

J. DISSERTATION

1. Each candidate for the doctoral degree is required to complete a dissertation concerned with a well-defined problem lending itself to a study of reasonable scope. The dissertation should represent a significant contribution to learning in the discipline concerned.
2. A student actively engaged in work on a dissertation, as determined by the student's major professor, must be officially enrolled for dissertation credit, whether the student is on or off campus. Dissertation credit will be scheduled and recorded as agreed upon by student and major professor in light of the anticipated time and effort to be devoted to the dissertation project.
3. The dissertation must be prepared according to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations* available at <http://gradschool.louisiana.edu>.
4. Prior to the final examination, the candidate must submit a copy or copies of the dissertation to the dissertation committee, in the form specified by the committee and according to a schedule set by the committee, to permit review by committee members.
5. The dissertation is officially accepted upon unanimous vote of the dissertation committee, unless the degree-granting department or program has specified in writing a different standard.
6. Four perfect copies of the dissertation in final, finished format must be presented to the Graduate School office for approval by the Graduate Dean before the date designated in the schedule of classes. The four required copies must conform to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations*. Students are reminded that "perfect copies" refers to both content and format. Dissertations not meeting these guidelines will be returned. Failure to meet deadlines may delay graduation.
7. When the final copies of the dissertation are presented to the Graduate School for the Dean's approval, the student must also submit four original certificates of approval signed by each member of his/her committee, to be signed later by the Dean of the Graduate School and incorporated into each of the four required copies of the dissertation. Original signatures in black ink are required on each approval sheet; copies of the approval sheet with duplicated signatures are not acceptable.
8. In instances where the Dean of the Graduate School is an official member of a student's dissertation committee, the approval sheet of the dissertation will contain the name, rank, and signature of the Chair of the Graduate Council in the space normally provided for the Dean of the Graduate School. In such instances, the Dean will sign only as a member of the dissertation committee.
9. A dissertation abstract, not to exceed 350 words, must accompany each of the four required copies of the dissertation. Two additional copies of the abstract must be furnished to the Graduate School office when the dissertation is presented.
10. A candidate must pay a binding charge of \$10.00 per copy for each of the four required copies of the dissertation presented to the Graduate School office. In some cases where special binding expenses are incurred, the student may be required to pay additional fees. The Graduate School office makes the arrangements for binding. Two copies of the bound dissertation are sent to Dupré Library, one for deposit in the Louisiana Room and one for general circulation. One copy is kept by

- the candidate's major department. The fourth copy goes to the dissertation advisor. Additional copies are to be prepared as specified by the candidate's department or as desired by the candidate for personal use.
11. The University participates in the service provided by ProQuest Information and Learning for the reproduction of doctoral dissertations and the publication of abstracts in *Dissertation Abstracts International*. The doctoral candidate must meet the requirements specified by the Graduate School regarding this service, including the payment of a \$83 fee when the final copies of the dissertation are presented to the Graduate School office.
 12. The doctoral student is encouraged but not required to have the dissertation registered with the Library of Congress. The student will work with the Graduate School Office to arrange through ProQuest Information and Learning for copyright, if desired. Doctoral students are required to submit their doctoral dissertation to ProQuest for dissemination. The fee is \$65.

K. FINAL EXAMINATION

1. The final examination is an oral exercise concerned with the dissertation, but it may be extended to other areas at the discretion of the committee. There shall be prior announcement of the name of the candidate, the field, the title of the dissertation, and the date, time, and place of the final examination. All members of the University faculty may attend as observers.
2. The final examination is scheduled only after completion of the dissertation in a form acceptable to the dissertation committee and after all other requirements for the doctorate have been satisfied. For a student to graduate at the end of a semester, the final examination must be completed by the date designated in the schedule of classes. Satisfactory performance on the examination completes all academic requirements for the degree.

L. CHECK-LIST FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

- o Passed Graduate Record Examination prior to first semester of study.
- o Prepared outline of curriculum with department head or advisor.
- o Passed departmental preliminary examination.
- o Had a dissertation committee approved by the Dean of the Graduate School.
- o Completed courses listed in outline of curriculum.
- o Completed foreign language requirements.
- o Satisfactorily completed the general comprehensive examination.
- o If applicable, presented acceptable dissertation prospectus to dissertation committee.
- o Admitted to candidacy immediately after satisfactory completion of the general comprehensive examination.
- o Completed and returned the Graduation Check-List to the Graduate School by end of the first week of last semester of graduate work.
- o Paid diploma fee by first week of last semester.
- o Completed residence requirements.
- o Presented dissertation in a form and according to a schedule acceptable to the dissertation committee before taking the final examination.
- o Satisfactorily completed the final examination.
- o Maintained a 3.0 average overall and in major field, with no more than one C in a course to be applied toward the fulfillment of degree requirements, and with the prescribed number of semester hours earned in courses at the 500 and 600 levels.
- o Turned in, or made arrangements for turning in, to the Graduate School office the approved four copies of the dissertation in perfect, finished form, each with an approval sheet with original signatures in black ink and a dissertation abstract, and two extra copies of the abstract, and paid dissertation binding charge of \$10.00 per copy.
- o Paid \$83 fee in the University of Louisiana at Lafayette Student Cashier Center for the service provided by ProQuest Information and Learning.
- o Attended graduation exercises, unless excused in advance in writing by the Dean of the Graduate School.

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I. REGULATIONS FOR THE DEGREE OF DOCTOR OF EDUCATION COLLABORATIVE PROGRAM

The Doctor of Education degree (Ed.D.) is a collaborative degree program offered by the University of Louisiana at Lafayette and Southeastern Louisiana University.

A. THE DEGREE OF DOCTOR OF EDUCATION

1. The degree of Doctor of Education attests to high attainment in scholarship and in research and is conferred only for work of distinction which displays marked powers of originality.
2. The University of Louisiana at Lafayette offers the doctoral degree in collaboration with Southeastern Louisiana University.
3. To be eligible to receive the Ed.D. degree a student must:
 - a. Complete the specified general degree requirements.
 - b. Demonstrate completion of the equivalent of six full semesters of graduate study and research beyond the bachelor's degree.
 - c. Complete an acceptable dissertation after being admitted to candidacy for the degree.
 - d. Satisfy the general and specific departmental or program requirements for the degree.

B. ADMISSION TO A DOCTORAL PROGRAM

1. A student becomes an applicant for the doctorate upon admission to the Graduate School and upon acceptance to pursue the degree.
2. Tenured University of Louisiana at Lafayette faculty above the rank of instructor may not be admitted into the University of Louisiana at Lafayette Ed.D. program.

C. ADVISORY COMMITTEE

The student's program of study must be planned in consultation with the program coordinator or a mentor approved by the program coordinator.

D. QUALIFYING PAPER

To aid in the preparation of a dissertation proposal and to determine the weaknesses and strengths in the student's preparation, students must complete and defend a qualifying paper that consists of a comprehensive review of the literature on a topic selected by the student. The qualifying paper is required in place of the general comprehensive examination. The qualifying paper will be evaluated by two faculty members who serve as the student's qualifying paper committee.

E. DISSERTATION COMMITTEE

1. The dissertation committee is responsible for supervising the preparation of the student's dissertation and for forwarding the Final Report to the Dean of the Graduate School. At such time as the program coordinator requests, the Dean of the Graduate School will approve, upon departmental or program recommendation, a dissertation committee.
2. A doctoral dissertation committee is generally comprised of three to five members, at least three members of which must be members of the UL Lafayette Graduate Faculty and the consortium institution. The UL Lafayette Graduate Faculty members shall always constitute a simple majority of the committee membership regardless of the number of total committee members. All members of a dissertation committee at UL Lafayette shall be voting members of said committee with the privilege of signing the approval pages of the dissertation.

Only graduate faculty members at UL Lafayette or the consortium institution may serve as chair and/or co-chair of a dissertation committee. This includes adjunct faculty who are members of the UL Lafayette Graduate Faculty.

Committee members from outside of the UL Lafayette faculty may serve as outside members of the dissertation committee with the privileges of voting and signing the dissertation approval pages. These members shall be chosen based upon their qualifications by the dissertation committee.

In addition, the committee must include adequate representation from the candidate's major field, and secondary field (if any). A minimum of two members in addition to the chair must participate in the defense of dissertation. In addition, at least one committee member must be from the collaborating university (Southeastern Louisiana University). The Dean of the Graduate School will usually appoint an additional member to represent the Graduate Faculty.

F. QUALIFYING PAPER/GENERAL COMPREHENSIVE EXAMINATION

1. A comprehensive examination committee is generally comprised of three to five members, at least two must be members of the UL Lafayette Graduate Faculty. In all cases, the committee must be chaired by a member of the Graduate Faculty. The UL Lafayette Graduate Faculty members shall constitute a simple majority of the committee.
2. A qualifying paper consisting of a comprehensive review of the literature on a selected topic is required in place of a general comprehensive examination.
3. Satisfactory completion of the qualifying paper shall be determined by vote of the qualifying paper committee.

G. ADMISSION TO CANDIDACY FOR THE DOCTOR OF EDUCATION DEGREE

1. Admission to candidacy for the Doctor of Education degree is recognition of a stage in advancement toward the degree.
2. Immediately after satisfactory completion of the qualifying paper, the student shall make application for admission to candidacy using the form available in the Graduate School office. A copy must be on file in the Graduate School.
3. Each application for admission to candidacy must be approved by the Graduate Dean. No person whose proficiency in English is unsatisfactory will be admitted to candidacy.

H. GRADE, CREDIT, AND TIME REQUIREMENTS

1. Each degree candidate must complete at least 60 hours of graduate credit subsequent to earning a master's degree; at least 54 of these hours must be in non-dissertation course work. Each student is also required to schedule and pass EDLD 900 Doctoral Dissertation I. Once a student completes EDLD 900 and begins working on their dissertation, they must schedule EDLD 999 dissertation hours until they are ready to defend and complete their dissertation. It is the student's responsibility to contact the graduate advisor to determine the acceptability of previous course work.
2. Each degree candidate must present acceptable grades in the course work specified for the curriculum. Grades must average B or better, both overall and in the major field. No more than one course in which a grade of C has been earned may be applied toward the fulfillment of degree requirements.
3. At least one-half of the minimum semester hours required of each degree candidate (not including dissertation credit) must be in courses limited to graduate students.
4. Upon satisfactory completion of the dissertation, the student will have a minimum of 6 semester hours of dissertation credit from EDLD 900 and EDLD 999.
5. All degree requirements must be completed within six calendar years following admission to candidacy in the Ed.D. program. Admission to candidacy is defined as successful completion of the qualifying paper.
6. A maximum of 12 semester hours of appropriate graduate course work (six from the master's degree and six from post-master's course work), subject to approval by the Consortium, with prior

approval by the candidate's advisor, the program coordinator and the Graduate School Dean, may be transferred from other accredited institutions or from within a consortium institution.

I. RESIDENCE REQUIREMENT

The minimum residence requirement shall be two semesters of full-time consecutive graduate study. The student should consult the department or program coordinator for further information regarding residence requirements.

J. DISSERTATION

1. Each candidate for the doctoral degree is required to complete a dissertation concerned with a well-defined problem lending itself to a study of reasonable scope. The dissertation should represent a significant contribution to learning in the discipline concerned.
2. A student actively engaged in work on a dissertation, as determined by the student's major professor, must be officially enrolled for dissertation credit, whether the student is on or off campus. Dissertation credit will be scheduled and recorded as agreed upon by student and major professor in light of the anticipated time and effort to be devoted to the dissertation project.
3. The dissertation must be prepared according to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations* available at <http://gradschool.louisiana.edu>. The Ed.D. Consortium has established APA as the style to be used for dissertations in the Doctor of Education program.
4. Prior to the dissertation defense, the candidate must submit a copy or copies of the dissertation to the dissertation committee, in the form specified by the committee and according to a schedule set by the committee, to permit review by committee members.
5. The dissertation is officially accepted upon unanimous vote of the dissertation committee, unless a different standard has been established in writing in advance.
6. Four perfect copies of the dissertation in final, finished format must be presented to the Graduate School office for approval by the Graduate Dean before the date designated in the schedule of classes. The four required copies must conform to the requirements specified in the publication, *Guidelines for the Preparation of Theses and Dissertations*. Students are reminded that "perfect copies" refers to both content and format. Dissertations not meeting these guidelines will be returned. Failure to meet deadlines may delay graduation.
7. When the final copies of the dissertation are presented to the Graduate School for the Dean's approval, the student must also submit four original certificates of approval signed by each member of his/her committee, to be signed later by the Dean of the Graduate School and incorporated into each of the four required copies of the dissertation. Original signatures in black ink are required on each approval sheet; copies of the approval sheet with duplicated signatures are not acceptable.
8. In instances where the Dean of the Graduate School is an official member of a student's dissertation committee, the approval sheet of the dissertation will contain the name, rank, and signature of the Chair of the Graduate Council in the space normally provided for the Dean of the Graduate School. In such instances, the Dean will sign only as a member of the dissertation committee.
9. A dissertation abstract, not to exceed 350 words, must accompany each of the four required copies of the dissertation. Two additional copies of the abstract must be furnished to the Graduate School office when the dissertation is presented.
10. A candidate must pay a binding charge of \$10.00 per copy for each of the four required copies of the dissertation presented to the Graduate School office. In some cases where special binding expenses are incurred, the student may be required to pay additional fees. The Graduate School office makes the arrangements for binding. Two copies of the bound dissertation are sent to Dupré Library, one for deposit in the Louisiana Room and one for general circulation. One copy is kept by the candidate's major department. The fourth copy goes to the dissertation advisor. Additional copies are to be prepared as specified by the candidate's department or as desired by the candidate for personal use.
11. The University participates in the service provided by ProQuest Information and Learning for the reproduction of doctoral dissertations and the publication of abstracts in *Dissertation Abstracts*

International. The doctoral candidate must meet the requirements specified by the Graduate School regarding this service, including the payment of an \$83 fee when the final copies of the dissertation are presented to the Graduate School office.

12. The doctoral student is encouraged but not required to have the dissertation registered with the Library of Congress. The student will work with the Graduate School Office to arrange through ProQuest Information and Learning for copyright, if desired. Doctoral students are required to submit their doctoral dissertation to ProQuest for dissemination. The fee is \$65.

K. FINAL EXAMINATION

1. The final examination is an oral exercise concerned with the dissertation, but it may be extended to other areas at the discretion of the committee. There shall be prior announcement of the name of the candidate, the field, the title of the dissertation, and the date, time, and place of the final examination. All members of the University faculty may attend as observers.
2. The final examination is scheduled only after completion of the dissertation in a form acceptable to the dissertation committee and after all other requirements for the doctorate have been satisfied. For a student to graduate at the end of a semester, the final examination must be completed by the date designated in the schedule of classes. Satisfactory performance on the examination completes all academic requirements for the degree.

L. CHECK-LIST FOR THE DEGREE OF DOCTOR OF EDUCATION

- o Passed Graduate Record Examination prior to first semester of study.
- o Prepared outline of curriculum with program coordinator or advisor.
- o Passed qualifying paper defense.
- o Had a dissertation committee approved by the Dean of the Graduate School.
- o Completed courses listed in outline of curriculum.
- o Presented acceptable dissertation prospectus to dissertation committee.
- o Admitted to candidacy immediately after satisfactory completion of qualifying paper.
- o Completed and returned the Graduation Check-List to the Graduate School by end of the first week of last semester of graduate work.
- o Paid diploma fee by first week of last semester.
- o Completed residence requirements.
- o Presented dissertation in a form and according to a schedule acceptable to the dissertation committee before taking the final examination.
- o Satisfactorily completed the final dissertation defense/examination.
- o Maintained a 3.0 average overall and in major field, with no more than one C in a course to be applied toward the fulfillment of degree requirements, and with the prescribed number of semester hours earned in courses at the 500 and 800 levels.
- o Turned in, or made arrangements for turning in, to the Graduate School office the approved four copies of the dissertation in perfect, finished form, each with an approval sheet with original signatures in black ink and a dissertation abstract, and two extra copies of the abstract, and paid dissertation binding charge of \$10.00 per copy.
- o Paid \$83 fee in the University of Louisiana at Lafayette Student Cashier Center for the service provided by ProQuest Information and Learning.
- o Attended graduation exercises, unless excused in advance in writing by the Dean of the Graduate School.

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APPLIED LANGUAGE AND SPEECH SCIENCES

DOCTOR OF PHILOSOPHY

Code 8969 (510299-01)

This doctoral program studies communication processes, language use and acquisition, communication disorders, and related areas. Students are expected to concentrate their work in one or more areas of active faculty research. The program is designed to produce research professors for colleges and universities and/or researchers for schools, clinics, and hospitals.

ADMISSIONS

For regular admission an overall 3.0 grade-point average in prior undergraduate and graduate studies, a satisfactory score on the Graduate Record Examination, three supporting letters of recommendation, and an acceptable 1-2 page personal statement of goals and research interests are required. Applicants will normally hold the M.S. in Speech-Language Pathology and the Certificate of Clinical Competence in SLP, but individuals with master's degrees in related areas are welcomed. Exceptional students may enter the doctoral program directly from the baccalaureate. A master's degree is not required for completion of the doctorate.

REQUIREMENTS

A. Prerequisites

An introductory course in parametric statistics and one in linguistics, a graduate course (500 or above) in research and diagnosis of communication disorders, 3 semester credit hours (400(G) or above) in communication sciences and/or speech and language disorders, 3 hours (400(G) or above) in phonology, syntax, semantics, pragmatics, or some combination, and 3 hours (400(G) or above) in neurolinguistics, psycholinguistics, or sociolinguistics are required. Any missing prerequisites must be made up within the first year of full-time study or its equivalent.

B. Preliminary Examination

The student must pass a preliminary written examination or have completed the Capstone Seminar required by the Department for its Master's students.

C. Identifying a Mentor

On or before entry to the program, the student shall identify a member of the Graduate Faculty willing and able to serve as his/her Mentor (i.e., primary advisor), or the Graduate Coordinator will identify someone willing and able to serve in that role. To serve as a Mentor to any doctoral student the faculty member must have an active publication and research agenda in the student's declared area(s) of interest. No student will be admitted unless there is a qualified member of the Graduate Faculty willing to serve as that individual's Mentor. A student may change Mentors during the course of study, provided that another willing and able Mentor is named in writing to the Graduate Coordinator of the Ph.D. Program.

D. General Requirements

All students must complete 72 post-baccalaureate semester hours of which at least 48 hours must be in approved non-dissertation (and non-prerequisite) course work and of which a maximum of 15 approved hours can be counted from any master's degree program already completed. The student must complete all requirements within seven calendar years beginning with the first semester of enrollment as a Ph.D. student.

E. Common Core

The student shall complete a common core (a minimum of 12 semester credit hours) of language and speech sciences, research, and intensive descriptive/observational work. Participation in the Research Colloquium is also required throughout residency at UL Lafayette. Doctoral students must make at least one presentation related to their own research at some meeting of the Research Colloquium during their tenure in the program. Additionally, every successful student must prepare no fewer than *four research*

papers suitable for publication, two of which must be submitted to refereed journals, prior to the dissertation proposal.

F. Research Requirement

Students are required to obtain the qualitative and/or quantitative research skills necessary to their individual research agenda. It is up to the student in consultation with his/her Mentor and/or Dissertation Director to see to it that this requirement is reasonably met.

G. Advisory Committee and the Program of Study

The student's Program of Study must be planned in consultation with an Advisory Committee selected by the student in consultation with his or her designated Mentor. It shall consist of not fewer than three members of the Graduate Faculty (at least two of whom are members of the Department) willing to serve. The student's designated Mentor shall head that student's Advisory Committee.

H. Comprehensive Examination

Each student must pass a Comprehensive Examination set by the Advisory Committee.

I. Dissertation Director and Committee

After successful completion of the Comprehensive Examination, the student shall select a Dissertation Director (usually the student's Mentor) willing to serve on behalf of the student and the Department. In consultation with said Dissertation Director, a Dissertation Committee must be constituted of at least three *other* members of the Graduate Faculty, a majority of whom must be members of the CODI department, plus at least one qualified reader from another university. The Dissertation Committee must be headed by a member of the Graduate Faculty of the Department or an approved other member of the Graduate Faculty.

J. Dissertation Proposal

The student must present and defend at a public hearing a dissertation proposal acceptable to the Dissertation Committee and the Graduate Faculty of the department. After acceptance of a dissertation proposal, the student must remain continuously enrolled for dissertation credit (excluding summers) until the dissertation is accepted.

K. Dissertation Defense

After the dissertation is completed to the satisfaction of the Dissertation Director, it is to be presented in its completed form to the other members of the Dissertation Committee (including the external reviewer) and the Graduate Coordinator of the Ph.D. program. At the discretion of the Dissertation Director, a formal, public Dissertation Defense will be publicly announced to all committee members, the Graduate School, and all participants in Research Colloquium, not less than two weeks prior to its occurrence.

L. Final Submission

After the student has completed the public oral defense of the dissertation (as judged in camera by the Dissertation Committee, with the external reviewer normally voting in absentia, and such representative as the Graduate School may appoint), the student must file such copies as the Department and/or Graduate School may require (including electronic versions) and must submit the Abstract of the work in an acceptable form for publication in *Dissertation Abstracts*.

ARCHITECTURE

MASTER OF ARCHITECTURE

Code 8085 (040201-01)

The Master of Architecture degree is a professional degree and meets the degree requirement for licensure in architecture set forth by the National Council of Architectural Registrations Board (NCARB). The program is accredited by the National Architectural Accrediting Board (NAAB), which states the following:

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the

sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

PREREQUISITES

The program has three tracks. Option one is for those with a professional bachelor's of architecture degree (B.ARCH.) from an accredited institution. Option two is for those with a bachelor's degree (B.A./B.S.) in architectural studies from an institution with an accredited professional degree. Option three is for those with a bachelor's degree in other disciplines, degrees from non-accredited institutions or for those who have deficiencies in their undergraduate work. Those with a degree in another area will need to complete undergraduate preparatory coursework. These preparatory courses will be determined by faculty and must meet accreditation requirements; these courses will not count toward the master's of architecture degree.

COURSE REQUIREMENTS

The Master of Architecture consists of 48 semester hours. This includes 33 credit hours of core courses and 15 credit hours of architecture elective courses. A maximum of two 400(G) courses are permitted to count toward fulfilling degree requirements.

Master's Project or Thesis. Thesis option students must submit in writing a Thesis Proposal for approval in their first semester of studies.

The requirements may increase depending on the undergraduate courses previously taken.

The following courses are required.

ARCH	501	Advanced Architectural Design
ARCH	502	Advanced Architectural Design 2
ARCH	509	Architectural Master's Project (or ARCH 599 Thesis)
ARCH	521	History of Architecture
ARCH	530	Urban History
ARCH	540	Professional Practice
ARCH	560	Theory in Architecture
ARCH	565	Architectural Research and Programming

In addition to the above-required courses, candidates will take 15 credit hours of architecture elective courses in a declared area of concentration.

BIOLOGY

MASTER OF SCIENCE

Code: 8111 (260101-01)

The master's degree program offers professional training in the biological sciences.

PREREQUISITES

Prerequisites for acceptance into a master's degree program in biology typically include 32 semester hours of basic courses in biology. A student who is deficient in one or more areas of biology may, at the discretion of the advisory committee, be required to make up the deficiency. An undergraduate grade-point average of

at least 3.0, a satisfactory Graduate Record Examination general score, and three supportive letters of recommendation are among the criteria evaluated for regular admission.

COURSE REQUIREMENTS

A candidate for the degree of Master of Science must present acceptable grades for a minimum of 30 hours of courses approved for graduate credit, including not more than 6 devoted to thesis.

Of the 24 non-thesis hours, at least 18 must be from courses in the Department of Biology. At least 12 of the non-thesis hours must be in courses at the 500 level, including 2 hours of the graduate seminar in biology.

OTHER REQUIREMENTS

A research thesis is required of all master's degree students. Students must also take a written comprehensive examination and a final examination in defense of the thesis.

ENVIRONMENTAL AND EVOLUTIONARY BIOLOGY

DOCTOR OF PHILOSOPHY

Code 8119 (261399-01)

Study in this program emphasizes environmental and evolutionary biology. Students enrolled in the program are expected to concentrate their dissertation work in an area of active faculty research.

ADMISSIONS

An acceptable grade-point average (3.0 minimum during the most recent 60 semester hours), satisfactory scores on the Graduate Record Examination, and three supporting letters of recommendation are required for regular admission.

DOCTORAL ADVISORY COMMITTEE

The doctoral advisory committee is constituted during the student's first year in residence in the program. It includes a minimum of five doctoral-level scientists, at least three of whom are members of the University of Louisiana at Lafayette Biology Graduate Faculty. One member must be from outside the Department of Biology and may be from outside the University. The student's advisor is a member of the committee and serves as chair.

GENERAL REQUIREMENTS

A minimum of 72 semester hours of credit beyond the bachelor's degree is required; at least 48 of these hours must be in non-dissertation course work. Students entering the program with a master's degree must complete at least 24 hours of non-dissertation course work. At least 9 credits must be in environmental biology and 9 in evolutionary biology and a minimum of 12 hours must be at the 500 level.

SPECIAL REQUIREMENT

The student (as first author) must submit a manuscript to an appropriate journal prior to the final examination.

GENERAL COMPREHENSIVE EXAMINATION

The general comprehensive examination should be taken by the end of the second year of doctoral study. The examination will include an oral and a written component.

DISSERTATION

A specific research project must be completed, and a formal dissertation must be submitted to and approved by the student's advisory committee and by an appropriate scientist from outside the University.

FINAL EXAMINATION

The final examination is an oral defense of the dissertation and may include related scientific topics.

BUSINESS**MASTER OF BUSINESS
ADMINISTRATION**

Code: 8120 (520201-01)

MISSION STATEMENT

The mission of the MBA program is to offer high-quality graduate education for students having varied educational and professional backgrounds. The program develops skills and knowledge necessary to progress in current positions, qualify for career changes, and progress in managerial and leadership positions in business and society.

The MBA program serves as a catalyst for intellectual activity in the College. Graduate faculty membership requires quality teaching, as well as ongoing scholarly and professional activity through basic and applied research, professional activities, service and consulting.

The program serves regional business and industry needs by allowing students to attend full-time or part-time. The curriculum integrates quality management, ethical considerations, international dimensions, technological applications and involvement with the business community.

PREREQUISITES

To be considered for regular admission, an applicant must have an undergraduate degree from an accredited American institution, submit acceptable test scores on the Graduate Management Admissions Test (GMAT), and meet the admission standards and other regulations of the Graduate School. The GMAT must have been taken within the last five (5) years. Students whose first language is not English, must, in addition, submit scores from the Test of English as a Foreign Language (TOEFL). All students admitted to the MBA program with a degree from a foreign university are admitted conditionally.

COURSE REQUIREMENTS

Basic requirements for the MBA degree consist of 33 semester hours: 27 semester hours of core courses and 6 semester hours of electives. The requirements may increase up to 15 additional semester hours (foundation courses) depending upon the undergraduate business courses previously completed. Students must be literate in the use of spreadsheet software or take BSAT 205.

There is no thesis requirement. A candidate may be subject to a comprehensive examination. Prior to admission and throughout the program, the student must demonstrate proficiency in writing and speaking English and must demonstrate computer competency through previous course work or experience.

Foundation Courses

MBA	500	Survey of Accounting
MBA	501	Survey of Economics and Finance
MBA	502	Survey of Management and Management Information Systems
MBA	503	Survey of Marketing and the Legal Environment of Business
MBA	504	Survey of Statistics and Operations Management

Core Courses

ACCT	526	Analytical Methods for Planning and Control
BSAT	518	Management of Information Technology
ECON	528	Managerial Economics
MGMT	525	Organizational Behavior and Leadership
FNAN	522	Advanced Financial Management and Policy
MKTG	524	Marketing Management
BSAT	510	Data Analysis
IBUS	540	International Business
MGMT	590	Policy Formulation, Strategy & Administration

In addition to the above required courses, candidates will take two approved graduate level business courses (6 semester hours) as electives. Electives include Accounting, Business Systems Analysis and Technology, Economics, Finance, Management, and Marketing.

Graduate credit applicable to the degree will be given only for five hundred level courses.

HEALTH CARE ADMINISTRATION OPTION**MBA**

Code: 8121 (510701-01)

An option is available in Health Care Administration. This program consists of 33 hours, with 15 hours from the Business Core and 18 hours of Health Care Administration courses. Two internships served within a Health Care Organization are required in addition to the 33 hours of course work. Each internship must be in different administrative areas of the organization. A student with significant Health Care Administration experience may petition to have one internship waived by submitting written documentation of such experience. Students selecting this option have the same foundation course requirements as the regular MBA.

Foundation Courses

MBA 500	Survey of Accounting
MBA 501	Survey of Economics and Finance
MBA 502	Survey of Management and Management Information Systems
MBA 503	Survey of Marketing and the Legal Environment of Business
MBA 504	Survey of Statistics and Operations Management

Core Courses**Business Administration**

ACCT	526	Analytical Methods of Planning and Control
ECON	528	Managerial Economics
FNAN	522	Advanced Financial Management and Policy
MKTG	524	Marketing Management
IBUS	540	International Business

Health Care Administration

HCA 503	Health Care Information Systems
HCA 520	Organizational Behavior in Health Service Organizations
HCA 550	Quality Management in Health Care
HCA 590	Strategic Management in Health Care

Health Care Electives

HCA	580	Current Issues in Health Care
BLAW	531	Legal/Ethical Issues in Health Care

In addition to the above required courses, candidates must complete two health care internships.

Graduate credit applicable to the degree will be given only for five hundred level courses.

CERTIFICATE OF HEALTH CARE ADMINISTRATION

Code: 8122

In addition to the Health Care Administration concentration within the MBA, a certificate program is also available. Those who already possess an MBA may receive a Certificate of Health Care Administration by completing 15 hours of health care administration courses and two internships in a health care related organization. Information is available from the College of Business Administration.

CENTER FOR ADVANCED COMPUTER STUDIES

M.S. and Ph.D. programs in Computer Engineering and Computer Science are administered through The Center for Advanced Computer Studies.

COMPUTER ENGINEERING

MASTER OF SCIENCE

Code: 8283 (140901-01)

The Master of Science degree program in Computer Engineering is designed to prepare a person for a career in the computer design and application field. Areas of emphasis in the program include: Computer Design and System Architecture, Computer Networks and Communications, Fault-Tolerant Computing and Security, Parallel and Distributed Computing, VLSI and system-on-chip Architectures, Robotics and Automation, Mobile and Wireless Communication, Visual and Image Computing, Intelligent Computing, Real-Time Systems, Virtual Reality, and Digital Entertainment Design and Development.

PREREQUISITES

The major prerequisite for the program is a Bachelor of Science Degree in Electrical or Computer Engineering. Students with a baccalaureate degree in other areas may be required to do background work before entering graduate study. A student must submit satisfactory GRE scores before admission to the M.S. program can be considered. For more specific information, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

COURSE REQUIREMENTS

Both a thesis and a project track are available. Under the thesis track, a student must successfully complete 24 hours of course work and must earn 6 hours of thesis credit. For the project track, a student must complete 33 hours of course work of which 6 hours are special project credit.

For more specific information as to prerequisite and required courses, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

COMPUTER ENGINEERING

DOCTOR OF PHILOSOPHY

Code: 8289 (140901-01)

The doctoral program in Computer Engineering is open only to students who have shown exceptional promise in their previous academic work. This program of study is designed for persons who seek faculty positions in colleges and universities or who desire senior designer research, or development positions in industry, government, or universities.

ADMISSIONS

Admission to the Ph.D. program in Computer Engineering is normally granted to persons with a baccalaureate degree in electrical or computer engineering. Remedial work will be required of students who enter with an inadequate background. A student must submit satisfactory GRE scores before admission to the Ph.D. program can be considered. For more specific information, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

GENERAL REQUIREMENTS

A minimum of 72 semester hours above the bachelor's degree is required. At least 48 of these hours must be in course work.

For more specific information as to prerequisite and required courses and the comprehensive examination, prospective students should consult literature available from The Center for Advanced Computer Studies.

LANGUAGE REQUIREMENTS

The knowledge of topics in mathematics and statistics and computer programming languages required of all Ph.D. students in computer engineering may be used to satisfy the language requirement.

GENERAL COMPREHENSIVE EXAMINATION

A student must complete selected courses designed to test the student's breadth of knowledge of fundamental concepts of computer engineering, and written Ph.D. comprehensive examinations to test depth of knowledge in chosen areas. A student may attempt this examination no more than twice.

DISSERTATION

A minimum of 24 hours must be earned in dissertation research. The research may be an original contribution to theory in the student's field of specialization, or it may involve new applications of theory.

FINAL EXAMINATION

A final oral examination devoted to the defense and evaluation of the Ph.D. dissertation will be administered to the student after the dissertation has been completed and approved by the dissertation committee.

COMPUTER SCIENCE

MASTER OF SCIENCE

Code: 8191 (110701-01)

The Master of Science degree program in Computer Science is designed to prepare a person for a career in the computing field. Areas of emphasis in the program include: Artificial Intelligence and Cognitive Science, Database Systems, Information Retrieval and Data Mining, Software Systems and Engineering, Multimedia Systems and Architectures, Computer Graphics, Information and Coding Theory, Distributed and Parallel Computing, Networks and Mobile Computing, Internet Computing, and Security.

PREREQUISITES

Knowledge of certain undergraduate computer science topics and computer-related mathematics is required as a prerequisite for the Master of Science program, and remedial work will be required of students who enter with an inadequate background in these areas. A student must submit satisfactory GRE scores before admission to the M.S. program can be considered. For more specific information, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

COURSE REQUIREMENTS

Three tracks are available: thesis, project, or course-work tracks. Under the thesis track, a student must successfully complete 24 hours of course work and must earn 6 hours of thesis credit. For the project track, a student must complete 33 semester hours of which 3 hours are special project credit. For the course track, a student must complete 33 semester hours of graduate course work.

For more specific information as to prerequisite and required courses, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

COMPUTER SCIENCE

DOCTOR OF PHILOSOPHY

Code: 8199 (110701-01)

The doctoral program in Computer Science is open only to students who have shown exceptional promise in their previous academic work. This program of study is designed for persons who seek faculty positions in colleges and universities or who desire senior designer research or development positions in industry, government, or universities. Areas of emphasis in the program are: Artificial Intelligence and Cognitive Science, Database Systems, Information Retrieval and Data Mining, Software Systems and Engineering, Multimedia Systems and Architectures, Computer Graphics Information and Coding Theory, Distributed and Parallel Computing, Networks and Mobile Computing, Internet Computing and Security.

ADMISSIONS

Admission to the Ph.D. program in Computer Science is normally granted to persons with a baccalaureate degree in computer science or some other related field and a number of undergraduate-level credits in mathematics. A master's degree or significant graduate work is desirable. Remedial work will be required of students who enter with an inadequate background in computer science or mathematics. Finally, a student must submit satisfactory GRE scores before admission to the Ph.D. program can be considered. For more specific information, prospective students should consult literature available from The Center for Advanced Computer Studies. (<http://www.cacs.louisiana.edu>)

GENERAL REQUIREMENTS

A minimum of 72 semester hours above the bachelor's degree is required. At least 48 of these hours must be in course work.

For more specific information as to prerequisite and required courses and the comprehensive examination, prospective students should consult literature available from The Center for Advanced Computer Studies.

LANGUAGE REQUIREMENT

The knowledge of topics in mathematics and statistics and computer programming languages required of all Ph.D. students in computer science may be used to satisfy the language requirement.

GENERAL COMPREHENSIVE EXAMINATION

A student must complete selected courses designed to test the student's breadth of knowledge of fundamental concepts of computer science and written Ph.D. comprehensive examinations to test depth of knowledge in chosen areas. A student may attempt this examination no more than twice.

DISSERTATION

A minimum of 24 hours must be earned in dissertation research. The research may be an original contribution to theory in the student's field of specialization, or it may involve new applications of theory.

FINAL EXAMINATION

A final oral examination devoted to the defense and evaluation of the Ph.D. dissertation will be administered to the student after the dissertation has been completed and approved by the dissertation committee.

COGNITIVE SCIENCE

DOCTOR OF PHILOSOPHY

Code: 8009 (302501-01)

Graduate study leading to a Ph.D. in Cognitive Science is offered by the Institute of Cognitive Science, which emphasizes the comparative study of human, animal, and machine cognition. The Institute links research in various university units, including The Center for Advanced Computer Studies (CACS), The New Iberia Research Center (NIRC) and the departments of Biology, English (Linguistics), Mathematics, Philosophy, Psychology, and Communicative Disorders.

ADMISSIONS

An acceptable grade-point average (3.25 minimum on all college-level work), satisfactory scores on the Graduate Record Examination, and three letters of recommendation are required for regular admission. In addition, applicants must submit a personal statement of goals and research interests, not to exceed two single spaced, typewritten pages. Students seeking admission to the Ph.D. program will usually have undergraduate degrees in cognitive science or a related discipline (e.g., psychology, anthropology, computer science, philosophy, neuroscience, linguistics), but applicants from all backgrounds will be considered. Students may be required to take foundation courses to fulfill graduate prerequisites.

More specific information about admissions and requirements may be found in the Guide to Graduate Studies available from the Institute of Cognitive Science.

GENERAL DEGREE REQUIREMENTS

A minimum of 72 semester hours of graduate credit is required. At least 48 of these hours must be in course work. Each student's curriculum will be determined in consultation with an advisory committee. In order to provide a common foundation in cognitive science, however, all students will take a set of core courses representing the major disciplines that comprise cognitive science.

COMPREHENSIVE EXAMINATION

The comprehensive examination in Cognitive Science is completed by portfolio. Students are examined on the breadth of their knowledge as well as their expertise in a chosen area of specialization. The portfolio is submitted for examination by the start of the fifth semester, and can be resubmitted once.

PROSPECTUS AND DISSERTATION

Following a completion of the course requirements and passage of the comprehensive examination, a student will prepare a written prospectus outlining proposed research. The written prospectus must be approved by the student's advisor, after which the student will be examined on the prospectus by a committee of faculty members. Following approval of a doctoral dissertation by the candidate's dissertation committee, the student must pass an oral examination devoted to the defense and evaluation of the dissertation.

COMMUNICATION

MASTER OF SCIENCE

Code: 8961 (090101-01)

The Master of Science in Communication degree program provides concentrations in Advertising; Interpersonal/Organizational Communication; Mass Communication (broadcasting and journalism); and Public Relations. Each concentration incorporates substantial preparation in research, theory, and communication management.

PREREQUISITES

Multiple criteria are used for admission to the communication graduate program. Applicants must submit satisfactory Graduate Record Examination scores prior to acceptance. The minimum grade-point average accepted is 2.8 on a 4.0 scale. Applicants also must submit official transcripts, three letters of recommendation, and examples of their writing. International students from countries with other than English as the principal language must submit TOEFL scores of 600 or greater on the written examination or 250 on the computer-based examination.

Applicants must submit transcripts showing satisfactory grades for 12 credit hours of communication courses appropriate for their concentration, or they must document equivalent professional experience. If an applicant lacks foundation courses or equivalent professional experience relating to the concentration in which he/she proposes to study, up to 9 credit hours of preparatory coursework will be required from among 300-level courses; those courses will not count toward the M.S. degree.

COURSE REQUIREMENTS

A Master of Science in Communication consists of two tracks: one terminates with a thesis and the other with comprehensive examinations and a major research paper or project. The thesis track requires 30 credit hours of which six credit hours must be supervised thesis research, CMCN 599. Students completing the non-thesis track must complete 33 credit hours. A professional project paper and written comprehensive examinations are required for non-thesis students. The paper may be completed for 3 hours of Directed Individual Study, CMCN 597 or 598.

All majors must complete a four-course core, preferably in their first two semesters: (1) CMCN 575, Communication Graduate Research; (2) CMCN 572, Communication Theory; (3) CMCN 580, Research Design and Analysis; and (4) CMCN 578, Communication Law and Ethics. If your transcript shows an undergraduate communication law-and-ethics course less than three years old, you may substitute International Law (CMCN 579). In addition, each student must complete the foundation course(s) in his/her respective concentration: CMCN 511 (Journalism and Mass Communication) for the Mass Communication concentration; CMCN 503 (Organizational Communication) for the organizational communication concentration; CMCN 509 (Interpersonal Communication) for the interpersonal communication concentration; CMCN 526 (Public Relations Management) and CMCN 528 (Public Relations Publics) for the public relations concentration; and CMCN 545 (Advertising) for the advertising concentration. Advisors may not waive required courses.

All other registration must be in 400(G)-level (for seniors and graduate students) or 500-level and above (for graduate students only) courses. Choices from among 400(G) courses, listed elsewhere in this catalog, are limited to three. The remainder of the communication courses for a degree must be selected from among 500-level courses. The Department of Communication accepts up to 6 hours of appropriate transfer credit. Students who have completed the required courses, but not a thesis or comprehensive examinations will register for CMCN 599, Thesis Research, or CMCN 899, Examinations Only, as a continuing registration course while those students are completing the thesis or the comprehensive examination requirement. Students must be enrolled in a communication course during the semester they complete their program.

COUNSELOR EDUCATION

MASTER OF SCIENCE

Code: 8010 (131101-04)

The Counselor Education program, jointly administered by the College of Education, the College of Liberal Arts, and the Graduate School is designed to prepare graduate students to assume roles as school counselors, community counselors, rehabilitation counselors, and college counselors. The student who successfully completes the degree will have satisfied the education requirements for several state and national certifications and licenses.

COURSE REQUIREMENTS

Students accepted into the M.S. in Counselor Education program must complete a core educational requirement of 30 credits consisting of: COUN 500, 501, 502, 504, 505, 506, 507, 509; PSYC 533, and 534. In addition to the core, students must choose an area of emphasis: School Counseling, Community Counseling, Rehabilitation Counseling, or College Counseling. Each emphasis includes 9-12 credits specific to the area of emphasis. In addition to the core and emphasis area, all students must complete 9-12 credits in a practicum and an internship in the area of emphasis. A total of 48-54 credits are required for the degree.

RESIDENCE REQUIREMENT

A student must satisfy residence requirements by successfully completing a minimum of 18 semester hours of degree program credit on the campus of UL Lafayette.

EDUCATIONAL LEADERSHIP

Code: 8389 (130401-01)

DOCTOR OF EDUCATION

This doctoral program is a collaborative program offered jointly by the University of Louisiana at Lafayette and Southeastern Louisiana University. Students are expected to concentrate their work in several areas including educational leadership and management, instructional leadership and a specialty area. The program is designed to produce educational leaders with the knowledge and skills to enhance the leadership capacity in K-12 school systems as well as the state and federal educational departments. The doctoral program is not designed to lead towards initial Administrative Certification for the State of Louisiana. Students who do not have a master's degree in school administration or the equivalent, may be required to complete three to nine hours of coursework in educational administration, either before or during the doctoral program.

ADMISSIONS

For regular admission a student must submit evidence of readiness for the program including evidence of an overall 3.0 grade-point average in prior undergraduate studies, a satisfactory score on the Graduate Record Examination, a completed application form, official transcripts from all colleges attended, a master's degree from an accredited university, a 3.25 grade-point average in prior graduate studies, a professional resume, a formal letter of application addressing the questions: (a) What is your purpose for joining the doctoral program? (b) What are your career goals both short and long term? (c) How do you believe the doctoral program will help you in the performance of your professional duties and responsibilities? (d) What specific qualities and characteristics do you bring to the doctoral program? (e) How would your personal and professional environments be supportive in your quest for the doctoral degree?; names and addresses (office and e-mail) and telephone numbers of three individuals and one letter of recommendation from a university professor who can attest to the candidate's ability to successfully complete the program; for applicants whose native language is not English, an acceptable score on the English proficiency examination (TOEFL); verification of at least three years of appropriate professional experience; satisfactory standing in the last institution attended.

REQUIREMENTS

A. Prerequisites

A graduate level course in statistics or its equivalent is required before taking EDLD 802 Quantitative Research.

B. General Requirements

All students must complete 60+ hours of coursework beyond the master's degree, organized into core course areas and specializations as listed below. The Doctor of Education in Educational Leadership provides an opportunity for the student to specialize in a content area with the approval of the faculty

advisor and program coordinator. The student must complete all requirements within six calendar years beginning with the first semester after successfully defending the qualifying paper.

The Ed.D. Degree Program in Educational Leadership requires a total of 60+ credit hours as follows:

Research Core: 12 credit hours (of 12 offered)

EDLD 800 Introduction to Doctoral Program & Research Design

EDLD 801 Writing for Research

EDLD 802 Quantitative Methods

EDLD 803 Qualitative Methods

Educational Leadership & Management Core: 21-24 credit hours, to be selected from the following 36 credit hours of coursework:

EDLD 810 Leadership Theory and Practice

EDLD 811 Management of Educational Organizations

EDLD 812 Supervision in Educational Settings

EDLD 820 Legal Issues & Ethics in Educational Organizations

EDLD 821 Politics & Community Relations

EDLD 822 Policy Development and Analysis

EDLD 823 Fiduciary Management of Educational Organizations

EDLD 840 Change Theory

EDLD 841 Organizational Development for Learning Communities

EDLD 842 Culture, Climate & Change Leadership

EDLD 875 Special Topics in Educational Leadership & Management

EDLD 897 Internship

Instructional Leadership: 6–9 credit hours, to be selected from the following 15 credit hours of coursework:

IREL 812 Leadership in the Integration of Emerging Technologies

EDLD 830 Foundations of Curriculum Theory and Design

EDLD 831 Critical Analysis of Current Research on Effective Educational Practice

EDLD 832 Educational Evaluation

EDLD 871 Special Topics in Instructional Leadership

Field-Based Practicum Experiences: 3 Credit Hours:

EDLD 880 Research Practicum

Specialization Coursework: 6-9 Credit Hours

The student will complete 6-9 semester credit hours in a specialization area. The specialization area and the courses within the specialization area must be agreed to by the student, the Faculty Advisor, the Coordinator of the Doctoral Program, and the Dean of the Graduate School. The student is responsible for scheduling the courses in the specialization area. Specialization areas include, but are not limited to, *Educational Technology, Administration of Exceptionalities, Educational Leadership & Management, Instructional Leadership, Business, Communications, and Law.*

Doctoral Dissertation Seminars: 6+ Credit Hours

EDLD 900 Doctoral Dissertation Seminar I

EDLD 999 Dissertation research

C. Graduate Assistantships

Graduate Assistant positions are available for qualified students. A student must be in regular admission status and schedule nine (9) or more hours applicable to the degree to be eligible. Contact the program coordinator for more information.

D. Qualifying Paper

A qualifying paper consisting of a comprehensive review of the literature on a topic selected is required in place of the traditional comprehensive examination. The student must successfully defend a qualifying paper to be admitted to candidacy.

E. Dissertation Director and Committee

After successful completion of the qualifying paper, the student shall select a Dissertation Chair willing to serve on behalf of the student and the Department. In consultation with said Dissertation Chair, a Dissertation Committee must be constituted of at least three members of the Graduate Faculty, with at least one member from the collaborating university (Southeastern Louisiana University). The Dissertation Committee must be headed by a member of the Graduate Faculty of the Department or an approved other member of the Graduate Faculty.

F. Dissertation Proposal

The student must present and defend at a public hearing a dissertation proposal acceptable to the Dissertation Committee and the Graduate Faculty of the department. After acceptance of a dissertation proposal, the student must remain continuously enrolled for dissertation credit (excluding summers) until the dissertation is accepted.

G. Dissertation Defense

After the dissertation is completed to the satisfaction of the Dissertation Chair, it is to be presented in its completed form to the other members of the Dissertation Committee (including the external reviewer).

H. Final Submission

After the student has completed the oral defense of the dissertation, the student must file such copies as the Department and/or Graduate School may require (including electronic versions) and must submit the Abstract of the work in an acceptable form for publication in *Dissertation Abstracts*.

EDUCATION**MASTER OF EDUCATION**

The mission of the College of Education at the University of Louisiana at Lafayette is built on the three pillars of the academy: teaching, scholarship, and service. A commitment to high standards in each of these areas enables the College to be responsive to community, regional and state needs while addressing national and international concerns. Through teaching, scholarship, and service, the College strives to prepare outstanding teachers, educational leaders and other professionals in related domains, while developing viable public and private partnerships which systemically improve education. This mission, being fundamental and timeless, represents the professional and ethical imperative of the College of Education to be attentive to the needs of contemporary college students and to the challenges of serving a diverse, modern society.

CONCEPTUAL FRAMEWORK: THE RESPONSIVE PROFESSIONAL

The conceptual framework of the UL Lafayette College of Education is designed to expand upon the institution's commitment to be a responsive university. The College strives for excellence in the production of responsive professionals-individuals who serve the community with professionalism and leadership in education and allied fields. The College of Education's conceptual framework forms a foundation for innovative, interdisciplinary, and research-based curricula dedicated to the development of reflective practitioners who demonstrate expertise in knowledge and practice. Through these programs, the College fosters collaboration, advocacy, respect for diversity, and commitment to on-going professional growth.

Admission to graduate programs in the College of Education requires the following:

- A) An undergraduate grade point average of 2.8 on a 4 point scale and satisfactory scores on the Graduate Record Examination.
- B) Each graduate program in the College of Education has additional requirements set forth under its section.

Students who are not granted regular admission status may be admitted conditionally to some of the College of Education programs when academic criteria (undergraduate GPA or test scores) are not fully met. The Graduate Advisory Committee of the College of Education reviews these cases. Conditionally admitted students are closely monitored during their first 12 hours of graduate coursework and must maintain a 3.0

GPA. At the end of 12 hours, conditionally admitted students must petition for regular admission status. NO MORE THAN 9 HOURS OF GRADUATE COURSEWORK, INCLUSIVE OF TRANSFER CREDIT, EARNED PRIOR TO ADMISSION (REGULAR OR CONDITIONAL) TO A DEGREE PROGRAM MAY BE APPLIED TOWARD THE COMPLETION OF DEGREE REQUIREMENTS.

Students who wish to pursue graduate coursework in the College of Education but do not wish to pursue a graduate degree should apply for Special Non-Degree status (Note: Special Non-Degree status has the same academic requirements as those for admission to degree programs in education).

CURRICULUM AND INSTRUCTION

MASTER OF EDUCATION

Code: 8377 (130301-01)

This program is designed to enhance pedagogical skills and content knowledge for certified teachers. Opportunities exist, through the use of cognate and elective courses, for students to customize their preparation in a specific subject field in secondary education, broaden their background in elementary education, or develop skills in non-teaching areas such as educational technology and exercise science.

ADMISSIONS REQUIREMENTS

In addition to the general admission requirements from the Graduate School, admission to the graduate program in the Curriculum and Instruction program requires:

1. Valid teaching certificate;
2. Evidence of one year of full-time teaching experience;
3. Two letters of recommendation utilizing the forms provided, that address the candidate's potential to become a master teacher.

COURSE REQUIREMENTS

Course requirements vary according to the concentration and cognate options desired by the student. The major requirements are:

- The entry core consists of six hours:
EDCI 507 Writing for the Responsive Professional
EDCI 508 Research to Impact Student Learning
- There are three areas of concentration available to students (12 hours each); Elementary Education (includes early childhood and middle school), Secondary Education (includes middle school), and Special Education.
- Cognate options (9 hours) are available to each concentration in the areas of Educational Technology, National Board Preparation, Reading Specialist and Special Education.
- There are six hours of electives to be selected in consultation with the student's advisor.
- The final three core hours for completion are:
EDCI 590 Applied Research in Curriculum and Instruction I (2 hours)
EDCI 591 Applied Research in Curriculum and Instruction II (1 hour)

The Master of Education program in Curriculum and Instruction is designed to provide advanced pedagogical skills and content knowledge for certified teachers and/or to satisfy requirements for the addition of new certification areas.

EDUCATIONAL LEADERSHIP

MASTER OF EDUCATION

Code: 8387 (130401-04)

The program in Educational Leadership is tailored to meet the certification needs of students in all educational leadership areas.

ADMISSIONS REQUIREMENTS

In addition to the general admission requirements of the Graduate School, admission to the graduate program in Educational Leadership requires:

1. Letter of recommendation from principal or supervisor authorizing release time and opportunities to perform leadership projects;
2. Letter of support from Superintendent, if applicable, authorizing release time and opportunities to perform leadership projects;
3. Reference letters from two colleagues that address issues identified in the application form such as commitment to excellence in teaching and learning;
4. Resume;
5. Application letter setting forth vision as school leader;
6. Submission of portfolio of leadership experiences and activities;
7. Interview with either district or University admissions committee;
8. Satisfactory completion of teacher induction program or similar program, and
9. Valid teaching certificate.

COURSE REQUIREMENTS

Students are admitted into cohorts that begin a two year program in the fall of each year. Students enroll in six hours of course credit each fall, spring and summer for a total of 36 hours. The courses include:

EDLD 500	Vision, Leadership and School Culture
EDLD 501	Using Data to Effect Change
EDLD 502	Legal, Regulatory and Ethical Issues
EDLD 504	Using Research to Lead Change
EDLD 505	Curriculum for Educational Leaders
EDLD 506	Assessment and Instruction for Educational Leaders
EDLD 507	Internship
EDLD 508	Systems Alignment
EDLD 509	Change, Transition and Evaluation
EDLD 510	Organizing the Learning Environment
EDLD 511	Community Engagement
EDLD 512	Capstone Seminar

More information on the program, and applications for admissions, can be found on the University website and in the Office of Graduate Studies in Education.

Students interested in the Teacher Leader Endorsement should schedule the two courses that comprise the Teacher Leader Institute Program to satisfy that certification.

GIFTED EDUCATION

MASTER OF EDUCATION

Code: 8378 (131004-03)

The Master of Education program in Education of the Gifted is designed for elementary, middle, and secondary teachers who wish to specialize in the education of academically gifted students. Louisiana certification to teach the academically gifted requires certification in one or more areas of regular education. Graduates of this program will be granted state certification to teach in programs for the academically gifted at the level(s) and in the subject(s) for which they hold regular certification, as well as in enrichment programs or classes at all levels.

ADMISSION REQUIREMENTS

In addition to the general admission requirements from the Graduate School, admission to the graduate program in Gifted Education requires the following:

1. Valid teaching Certificate in one or more areas of general education;
2. Evidence of one year of full-time teaching experience;
3. Two letters of recommendation utilizing the forms provided. Letters must address the candidate's potential to become a master teacher and to facilitate the learning of academically gifted students.

COURSE REQUIREMENTS

A minimum of 36 semester hours is required for completion of the degree program.

- The entry core consists of six credit hours:
EDCI 507 Writing for the Responsive Professional
EDCI 508 Research to Impact Student Learning
- The major consists of twenty-four credit hours. Please take note of prerequisites; courses are to be completed in a specific order. Prerequisites are included in the course descriptions at the back of this bulletin.
EDCI 506 Nature and Needs of Gifted Children
EDCI/SPED 500 Social and Emotional Needs of Gifted Students
EDCI/SPED 503 Developing Creativity in the Classroom
SPED 509 Instructional Strategies for Teaching the Gifted
SPED 510 Curriculum Development for the Gifted
SPED 513 Practicum in Gifted Education*
or
SPED 591 Internship in Gifted Education*
IRED 5xx A graduate level course in education technology
- One three credit hour elective must be selected in consultation with advisor
- The final core credit hours consist of the following:
EDCI 590 Applied Research in Curriculum and Instruction I (2hours)
EDCI 591 Applied Research in Curriculum and Instruction II (1 hour)

*Those not teaching in gifted programs should register for the summer practicum, SPED 513 (6 hours). Those teaching in gifted programs should register for the internship, SPED 591 (6 hours). The program coordinator must approve exceptions.

ENGINEERING

MASTER OF SCIENCE IN ENGINEERING

An advanced degree in engineering is designed to provide the engineer an increased knowledge of engineering theory, system design, and the development of research and developmental skills for use in the solving of complex engineering problems. The M.S. degree in Engineering at UL Lafayette is oriented to allow the graduate of the program to excel at both engineering practice and advancement toward the obtainment of the Ph.D. degree. Each M.S. program within the engineering departments offers a core curriculum combined with a variety of course options which will provide the student with a solid educational foundation for obtainment of the advanced degree. The core curriculum for each department, when coupled with specialty courses selected by the student in concert with his/her committee, provides both specialization and a broad fundamental knowledge of the selected engineering discipline. Both thesis and non-thesis programs are available. Students are encouraged to pursue the thesis-based programs which provide a stronger educational experience this option provides due to the integration of formal courses with experimentation. This combination best prepares the student for practice within the various fields of engineering.

PREREQUISITES

Entering students must have either (1) an engineering degree from an ABET/EAC accredited program or (2) an engineering degree from non-accredited engineering programs or (3) a degree from a closely aligned,

non-engineering major. Hence, non-engineering degreed applicants from calculus-based majors will be considered. However, in most cases, leveling undergraduate courses will be required to ensure that the student has an acceptable engineering knowledge base. The goal of the UL Lafayette College of Engineering is to position all of its M.S. graduates to be capable of successfully obtaining their respective Professional Engineering License (PE) via first passing the Fundamentals of Engineering Exam (FE). Which leveling courses will be required of students with degrees from non-accredited or non-engineering discipline programs will be determined by the Graduate Committees on a case-by-case basis in consultation with the Department Head within each of the engineering departments at UL Lafayette.

A student must submit Graduate Record Examination (GRE) scores before admission into the M.S. program can be considered. However, GRE scores are not the only criterion considered for admission, the UL Lafayette College of Engineering has adopted the following *guidance for potential admission*.

The UL Lafayette College of Engineering follows all of the UL Lafayette Graduate School's rules and policies except for the following, which represent more stringent policies instituted by the College of Engineering:

- 1) GRE: Numerical Q Score + Numerical MOD A Score \geq 1,000 with the University's Minimum V Score Requirement applied as is.

NOTE: Q = Quantitative GRE Score; A = Analytical/Written GRE Score; V = Verbal GRE Score

NOTE: MOD A Score = GRE A Numerical Score \times 100

- 2) All Students (either option) must have an overall cumulative GPA \geq 3.0 or a cumulative technical GPA calculated over the last 60 hours of the Undergraduate Student's Curriculum \geq 2.85 (calculated using technical courses only – engineering, sciences, and computer science).

Any deviation from the above will require a faculty member from the respective department to submit an admissions petition to the Graduate Coordinator of his/her department. Upon receipt of a petition, the Graduate Coordinator, in concert with the Department Head, will bring the petition forward for a graduate faculty vote. This vote requires a majority vote of the graduate faculty from that department to allow the deviation (ties will be broken via a double vote of the Graduate Coordinator).

All other university policies will apply – including GRE verbal and TOEFL score criteria.

CHEMICAL ENGINEERING OPTION

Code: 8172 (140701-01)

All specialty aspects of chemical engineering which align with the UL Lafayette Department of Chemical Engineering faculty's areas of expertise can serve as potential specialization areas for both course selection and thesis topics. Example areas of particular emphasis by the department include materials, bioprocessing, corrosion, catalysis, sensors, separations, environmental engineering, and chemical processing.

COURSE REQUIREMENTS

For the Thesis Program, thirty (30) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 12 credit hours of 500 and/or 400G level graduate courses in the Chemical Engineering Department, with 6 of these hours being from two department core courses which will be identified for the student upon acceptance into the program; (2) 6 credit hours achieved by successfully passing two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 3 credit hours of additional graduate course work from either the Chemical Engineering Department or another engineering department as approved; and (5) a minimum of 6 credit hours of thesis work and a thesis approved by the graduate committee. Note that each semester the Graduate Seminar Course is offered, enrollment in that course is mandatory.

For the Non-Thesis Program, thirty-six (36) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 18 credit hours of 500 and/or 400G level graduate courses in the Chemical Engineering Department with 6 of these hours being from two department core courses which will be identified for the student upon acceptance into the program; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 6 credit hours of additional graduate courses from either the Chemical Engineering Department or another engineering department; and (5) 3 hours of special project work and a project report to be presented to the graduate committee that details a thorough investigation by the student into an engineering problem to be selected by the student in concert and mandatory approval of the thesis advisor. Note that each semester the Graduate Seminar Course is offered, enrollment in that course is mandatory.

All graduate courses must be approved by both the committee chairperson and department graduate coordinator.

CIVIL ENGINEERING OPTION

Code: 8182 (140801-01)

All specialty aspects of civil engineering which align with the UL Lafayette Department of Civil Engineering faculty's areas of expertise can serve as potential specialization areas for both course selection and thesis topics. Example areas of particular emphasis by the department include hydraulics, engineering mechanics, coastal engineering, construction materials, environmental engineering, structures, and transportation engineering.

COURSE REQUIREMENTS

For the Thesis Program, thirty (30) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 12 credit hours of 500 and/or 400G level graduate courses in the Civil Engineering Department with 6 of these credit hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 9 graduate credit hours may be courses below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences, and (4) a minimum of 3 credit hours of additional graduate course work from either the Civil Engineering Department or another engineering department; and (5) a minimum of 6 credit hours of thesis work and a thesis approved by the graduate committee.

For the Non-Thesis Program, thirty-six (36) semester hours of graduate credit with a minimum GPA of 3.0 are required as follow: (1) a minimum of 18 credit hours of 500 and/or 400G level graduate courses in the Civil Engineering Department with 6 hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 12 graduate hours may be below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 6 credit hours of additional graduate courses from either the Civil Engineering Department or another engineering department; and (5) 3 hours may be taken via CIVE 594-Project Research.

All graduate courses must be approved by both the committee chairperson and department graduate coordinator.

MECHANICAL ENGINEERING OPTION

Code: 8682 (141901-01)

All specialty aspects of mechanical engineering that align with UL Lafayette Department of Mechanical Engineering faculty's areas of expertise can serve as potential specialization areas for both course selection and thesis topics. Example areas of particular emphasis by the department include alternative energy,

manufacturing, systems vibration, metal forming, computational fluid dynamics, machine science, process modeling and optimization, computer aided design, and automotive engineering.

COURSE REQUIREMENTS

For the Thesis Program, thirty (30) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 12 credit hours of 500 and/or 400G level graduate courses in the Mechanical Engineering Department with 6 of these credit hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 6 graduate hours may be below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 3 credit hours of additional graduate courses from either the Mechanical Engineering Department or another engineering department; and (5) a minimum of 6 credit hours of thesis work and a thesis approved by the graduate committee.

For the Non-Thesis Program, thirty-six (36) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 18 credit hours of 500 and/or 400G level graduate courses in the Mechanical Engineering Department with 6 credit hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 6 graduate credit hours may be below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508, (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences as approved by the thesis advisor and department graduate coordinator, and (4) a minimum of 6 credit hours of additional graduate courses from either the Mechanical Engineering Department or another engineering department as approved by the thesis advisor and department graduate coordinator; (5) 3 credit hours of a research component; (6) satisfactory performance on a written exam composed of at least three technical subjects; and (7) satisfactory performance on an oral exam.

All graduate courses must be approved by both the committee chairperson and department graduate coordinator.

PETROLEUM ENGINEERING OPTION

Code: 8792 (142501-03)

All specialty aspects of petroleum engineering that align with UL Lafayette Department of Petroleum Engineering faculty's areas of expertise can serve as potential specialization areas for both course selection and thesis topics. Example areas of particular emphasis by the department include reservoir engineering, tertiary recovery, environmental engineering, computational fluid flow, drilling, process economics, and computer-visualization of petroleum systems.

COURSE REQUIREMENTS

For the Thesis Program, thirty (30) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 12 credit hours of 500 and/or 400G level graduate courses in the Petroleum Engineering Department with 6 of these credit hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 6 graduate hours may be below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 3 credit hours of additional graduate courses from either the Petroleum Engineering Department or another engineering department; (5) enrollment in the Petroleum Engineering Graduate Seminar course every semester the student is within the program at UL Lafayette; and (5) a minimum of 6 credit hours of thesis work and a thesis approved by the graduate committee.

For the Non-Thesis Program, thirty-six (36) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 18 credit hours of 500 and/or 400G level graduate courses in the Petroleum Engineering Department with 6 credit hours being two core department courses that will be identified for the student upon acceptance into the program. [Note that no more than 6 graduate credit hours

may be below the 500 level.]; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 6 credit hours of either mathematics, statistics, or the sciences, and (4) a minimum of 6 credit hours of additional graduate courses from either the Petroleum Engineering Department or another engineering department; (5) 3 hours of a research component and the submission of a research report; (6) satisfactory performance on a comprehensive exam to be given during the graduation semester.

All graduate courses must be approved by both the committee chairperson and department graduate coordinator.

ENGLISH

MASTER OF ARTS

Code: 8301 (230101-02)

The degree of Master of Arts with a major in English is designed to satisfy the needs of a variety of students: those who wish to prepare themselves for college teaching on the freshman and sophomore levels or for continuation into doctoral studies; those who are currently high school English teachers and wish to broaden their knowledge of their specialty; those who plan to enter high school teaching; and those who wish to receive training in professional writing. Students may concentrate in English or American literature and language; in creative or professional writing; in rhetoric; in linguistics or ESOL studies; in folklore; or in American culture, which emphasizes American literature with additional coursework in other American studies such as history or sociology.

ADMISSIONS

A student applying for acceptance into the graduate program in English should note the following policies:

1. Graduation from an accredited university with a minimum overall average of 2.75 and an average of 3.0 in all English courses undertaken is required.
2. Submission of Graduate Record Examination scores is required, although the Graduate Record Examination is no more than one of several indices that predict success in English graduate studies. The Department will not, therefore, base admission or rejection solely on this score. Applicants should have a minimum of 12 hours of intermediate or advanced literature courses on transcripts. The literature subject test is optional. Applicants must submit a critical writing sample (10-20 pages) and a statement of purpose.
3. International students who are not native speakers of English are required to have a minimum score of 600 on the TOEFL. Those applying for assistantships must also demonstrate oral fluency.

COURSE REQUIREMENTS

The M.A. in English has both thesis and non-thesis tracks. For the non-thesis track, a minimum of 33 hours of course work is required; for the thesis track, course work ranges from 24 to 30 hours, plus 6 hours of thesis credit.

English offers several M.A. concentrations: English or American literature and language, creative or professional writing, rhetoric, linguistics, ESOL studies, folklore, and American Culture. Requirements and curricula for all concentrations and thesis or non-thesis tracks are available from the Department of English.

LANGUAGE REQUIREMENT

All students pursuing the M.A. degree in English, regardless of emphasis or minor, must demonstrate reading knowledge of an approved language other than English in one of the following ways:

1. by successful completion of a reading knowledge examination administered by the Department of Modern Languages;

2. by presenting evidence of having completed, within the past six years, the second semester, sophomore-level college course in any non-English language with a grade no lower than C;
3. by presentation of a satisfactory score in a particular language on the ETS Graduate School Foreign Language Test.

Students must satisfy the language requirement before taking the comprehensive examination.

M.A. COMPREHENSIVE EXAMINATION

Successful completion of the M.A. Examination in English is required of all degree candidates on the non-thesis track. Offered each regular semester, the examination consists of a three-and-a-half hour comprehensive written portion and a one-hour oral. A student may take the oral examination only after passing the written examination. The student must pass both the written and the oral components to satisfy the degree requirements.

The written examination consists of two components. The first, which is standard for all examinees, is devised and evaluated by the faculty M.A. Examinations Committee according to a prescribed format. This format is posted in the English Department office. The second component, which is tailored to reflect each student's program of graduate courses, is devised and evaluated by the student's faculty advisory committee. The student must pass both components to pass the written portion of the M.A. Examination and thus be eligible to stand for the oral portion, which is comprehensive and is conducted by the student's advisory committee. Students who have chosen the thesis track will present an oral defense of their thesis, to be conducted by their thesis committee.

ENGLISH

DOCTOR OF PHILOSOPHY

Code: 8306 (230101-01)

The English Ph.D. program is designed to provide the student with a broad knowledge of the field and a high degree of specialization in the major area. While making a comprehensive study of English and American language and literature, the student should discover an area of special interest. Advanced work in that area should lead to the dissertation topic. The student may pursue concentrations in (1) Creative Writing, (2) Folklore, (3) Linguistics, or (4) Rhetoric. The special requirements for these areas are available from the Department of English.

ADMISSIONS

A student may enter the program directly from the baccalaureate (see Admissions under M.A. program), but it is strongly advised that the M.A. degree be completed as a part of the program. In addition to GRE scores (General Test), three letters of recommendation and transcripts, applicants must submit a critical writing sample (10-20 pages) and a statement of purpose. Students applying to the Creative Writing Concentration need to submit as well a creative writing sample (10-20 pages).

COURSE REQUIREMENTS

1. Students must complete a minimum of 72 hours of graduate credit (including a minimum of 24 hours for dissertation), exclusive of the research methods course, above the baccalaureate.
2. A minimum of 48 of these hours must be in courses at the 400(G), 500, and 600 levels in the following areas of study:

Area 1:	British Literature to ca. 1500
Area 2:	British Literature of the Renaissance
Area 3:	British Literature of the Restoration and Eighteenth Century
Area 4:	British Literature, Romantic and Victorian
Area 5:	British Literature from ca. 1890 to the Present

Area 6:	American Literature to ca. 1900
Area 7:	American Literature from ca. 1900 to the Present
Area 8:	Literary Theory
Area 9:	Rhetoric
Area 10:	Linguistics
Area 11:	Open Topic/Major Genre (e.g., Fiction, Drama, Poetry)
Area 12:	Folklore

Students are urged to plan early and continuously, with the help of graduate advisors and the Graduate Coordinator, for adequate course work before their written examinations.

3. Students must take at least one course numbered 500 or above in any four areas numbered 1 through 7 above.
4. All students must complete at least 21 post-M.A. credit hours of course work in this department by the semester before the General Comprehensive Examination (see below) is scheduled.
5. Students must complete English 596, Research Methods, or an approved equivalent, and English 500, Professional Colloquium.
6. Students must complete 6 hours from any of the following courses:

English 405G, History of the English Language
English 410G, History of Literary Criticism
English 413G, Chaucer
English 425G, Semantics
English 452G, Language, Culture and Society
English 455G, Topics in Linguistics
English 458G, Investigating Text and Talk
English 459G, Literary Theory and Practical Criticism
English 502, Studies in Old English
English 503, Beowulf
English 505, Medieval Studies
English 506, Principles of Linguistics
English 513, Studies in Chaucer
English 553, Seminar in Linguistics
English 560, Seminar in Literary Theory
English 660, Special Topics in Criticism

LANGUAGE REQUIREMENT

In addition to a command of English, the student must demonstrate reading proficiency in two other languages or fluency in one other. Typically, Ph.D. students in English satisfy the language requirement with reading proficiency in two languages, one of which must be French or German; the other may be Arabic, Spanish, Italian, Latin, Russian, Greek, French, or German. If a student opts for fluency in one language, however, it must be French, German, or Spanish.

Reading proficiency in a language may be established in one of the following ways:

1. satisfactory completion of an appropriate language requirement in an M.A. or other post-baccalaureate program;
2. presentation of evidence of having completed, within the past six years prior to entering the English graduate program at the University of Louisiana at Lafayette, the second semester, sophomore-level college course in an approved language with a grade no lower than C; the course work may of course be taken while the student is attending the University of Louisiana at Lafayette;
3. successful completion of a reading proficiency examination designed and administered by appropriate faculty in the Department of Modern Languages or;

4. presentation of a satisfactory score on the Graduate School Foreign Language Test administered by the Educational Testing Service.

Fluency in French, German, or Spanish may be demonstrated in one of the following ways:

1. passing a special test designed and administered by the University of Louisiana at Lafayette Modern Languages Department; or
2. passing with a grade of B or better 9 semester hours in the target language at the junior or senior (300-400) level, or 6 hours at the graduate (500-600) level within the last five years prior to entering the graduate program in English at the University of Louisiana at Lafayette. These courses may be taken while the student is attending the University of Louisiana at Lafayette.

GENERAL COMPREHENSIVE EXAMINATION

After completing all work except the dissertation, every student, regardless of the Ph.D. concentration, will be tested by the English Graduate Faculty in four areas of study elected by the student. The examinations will include one five-hour written examination in a primary area and one five-hour written examination in each of three secondary areas. After passing the written examinations, and before the end of that semester in which they were successfully completed, the candidate's committee shall schedule an oral examination in the student's primary area of study. Note: (1) Students must take two of their four examinations in Areas 1 through 7. (2) Students whose primary exam is in British Literature of any period (Areas 1 through 5) must take at least one secondary written exam in American literature (Areas 6 or 7); and those whose primary exam is in American literature (Areas 6 or 7) must take at least one secondary written examination in British Literature (Areas 1 through 5); students whose primary exam is in Literary Theory, Folklore or Open Topics/Major Genre (Areas 8, 10, and 11) must take one secondary exam in British Literature (Areas 1 through 5) and one in American literature (Areas 6 or 7). (3) Students electing the Creative Writing, Linguistics or Rhetoric concentrations should see the regulations governing their examinations available from the Department of English.

On the basis of performance on these examinations, the student will be (1) passed unconditionally, (2) required to take further examinations, or (3) dropped from the Ph.D. program. Any student dropped from the program may appeal to the English Graduate Committee for reconsideration. A student who passes unconditionally may be awarded a pass "with distinction" if the primary exam is independently passed with distinction by two readers, if all secondary exams have received at least a grade of pass, and if five of the eight readers independently pass the exams with distinction.

DISSERTATION

As soon as possible after beginning graduate study, a Ph.D. student should elect a field of specialization and, in consultation with a specialist in that field, select some problem for investigation. In the semester following successful completion of the General Comprehensive Examination, the student should submit a prospectus for the dissertation. The candidate should begin this step early enough to allow for its approval by mid-October when examinations were completed the previous spring or mid-March when examinations were completed the previous fall. The Chair of the student's dissertation committee, in consultation with other committee members, will then recommend to the Dean of the Graduate School that the student's dissertation committee be approved. This committee will direct the candidate through the final stages of the program. The dissertation may be a work of literary or linguistic scholarship on a single subject, a literary biography, a work concerned with the history of ideas or American or English studies. Creative writing students submit an original work of literature with supporting critical/theoretical commentary. The dissertation should meet the minimum standards for publication. The specific requirements for Creative Writing, Folklore, Linguistics or Rhetoric concentrations are available from the Department of English.

FINAL ORAL EXAMINATION

When the dissertation has been completed and approved by the dissertation committee, the committee will conduct a final oral examination of the candidate. The examination will be devoted to a defense of the dissertation and to related matters.

FRENCH**MASTER OF ARTS**

Code: 8341 (160901-01)

The Master's program in French is designed to provide a broad knowledge of the French language, literature and culture. Students may elect to focus on France exclusively or on the Francophone world, with France as a primary area, as well as Francophone Europe, Quebec, Acadia, Louisiana, the Antilles and Haiti, Sub-Saharan Africa, the Indian Ocean, the Maghreb, and the Mediterranean. Both thesis and non-thesis tracks are available.

ADMISSION

To be considered for admission to the M.A. program, a student must have earned a minimum of 24 semester hours in French beyond the elementary level, including the following courses or their equivalents: FREN 361-362, Advanced French I-II (3 credits each); FREN 457-458, French Civilization I-II (3 credits each); and FREN 471-472, Survey of French Literature I-II (3 credits each). Students must demonstrate oral and written proficiency in French by submitting a sample of written work in French (two research papers or a thesis) as well as a sound recording demonstrating their oral proficiency. Transcripts of previous studies are required for admission into the Graduate School. Deficiencies in prerequisites and language proficiency must be made up during the first year of graduate studies.

ADVISING

Initially, the graduate coordinator acts as advisor to all M.A. students. By the end of the first year, the student sets up a graduate committee (normally including three or four graduate faculty members). At least three members must be professors with graduate faculty status in the student's own department. This committee serves as the student's source for advice and academic planning through completion of the M.A., serving as the student's comprehensive examination and thesis committee as appropriate.

REQUIREMENTS

Students may proceed in one of three ways:

- A. Students planning to continue studies at the Ph.D. level must take a minimum of 36 semester hours of graduate credit, including at least 30 semester hours in French and Francophone courses, and a minimum of 6 thesis hours. Eighteen of the semester hours in French and Francophone courses must be in courses limited to graduate students. Graduate assistants are required to take FREN 501, Préparation Pédagogique (3 credits). All students are required to take FREN 541, Atelier de méthodologie (3 credits), and FREN 540, Critique Littéraire (3 credits).

Alternately, students may take a minimum of 36 semester hours of graduate credit without writing a thesis. A student may schedule 36 semester hours in French and Francophone courses or 30 semester hours in French and Francophone courses, plus 6 semester hours in a related field approved by the Graduate Faculty of the Department. Eighteen semester hours must be in courses limited to graduate students. All students are required to take FREN 541, Atelier de méthodologie (3 credits), and FREN 540, Critique Littéraire (3 credits).

A third option is the M.A. program in French and Spanish. For this option, students take a minimum of 36 semester hours of graduate credit with 18 hours in French and 18 hours in Spanish. Eighteen

semester hours must be in courses limited to graduate students. All students are required to take FREN 541, Atelier de méthodologie (3 credits), and FREN 540, Critique Littéraire (3 credits).

- B. Each student must successfully complete comprehensive written and oral examinations in three selected areas of concentration based on the student's coursework and the department's reading list. On the basis of performance on these examinations, the student will be (1) passed unconditionally, (2) required to take additional written examinations in areas found to be deficient, or (3) dropped from the program. Students dropped from the program may appeal to the Francophone Studies Graduate Faculty for reconsideration. Successful written examinations will be followed by an oral examination which will focus on the three selected areas of concentration and which may also cover other areas of the reading list. If these examination results are not judged satisfactory, the student will be required to retake the examinations in areas found deficient no earlier than the following semester. Students may retake these examinations only once. If an M.A. student writes a thesis, the thesis committee will conduct an oral examination after the thesis is completed. This examination will be a defense of the thesis.
- C. In addition to a command of French and English, students must demonstrate reading proficiency in one other language. This requirement can be satisfied by passing a reading examination in the language or by successfully completing a course in the language at the 202 level or its equivalent.

FRANCOPHONE STUDIES

DOCTOR OF PHILOSOPHY

Code: 8349 (050124-01)

The doctoral program in Francophone Studies is designed to provide a broad knowledge of the Francophone world, including France, Francophone Europe, Quebec, Acadia, Louisiana, the Antilles and Haiti, Sub-Saharan Africa, the Indian Ocean, the Maghreb, and the Mediterranean. The program offers a variety of approaches: literary, linguistic, critical, ethnographic, and historical. Courses offered through the departments of History, Sociology and Anthropology, and English (Folklore) complement those taught in the French and Francophone Studies Program.

ADMISSION

Applicants to the doctoral program in Francophone Studies should normally possess the M.A. degree in French, though, in special cases, students with the B.A. may apply for admission directly to the Ph.D. program. Foreign degrees will be evaluated individually for equivalency. Students must remedy any content deficiencies before taking the comprehensive examinations. Applicants must submit a dossier composed of their Master's Thesis in French or two research papers in French dealing with critical interpretations of literary, linguistic or ethnological issues. The dossier should include a list of special certifications or diplomas obtained, articles published and papers presented. A sound recording demonstrating oral proficiency in French is also required for non-native speakers. Applicants must also provide official undergraduate and graduate transcripts demonstrating solid academic preparation for advanced work, as well as three letters of recommendation. Students lacking adequate preparation in literature or language may be admitted conditionally until they remedy any deficiencies.

ADVISING

The graduate coordinator initially acts as the student's primary advisor until the student selects a dissertation director and, in consultation with the director, forms a dissertation committee. The student's committee then serves as an additional source for advice and academic planning through the completion of the degree.

REQUIREMENTS

- A. In order to attain an appropriate level of competence in Francophone literature, culture and civilization, candidates for the doctorate must complete a minimum of 72 post-baccalaureate semester credit hours including 24 hours of dissertation. At least 21 hours of the minimal 48 hours

of course work must be taken after the M.A. comprehensive examinations or after completion of the M.A. thesis.

Students must maintain a 3.0 grade point average with no grade lower than C. A student with two grades of C or any grade below a C becomes ineligible to continue graduate work.

- B. A minimum of 48 hours past the bachelor's level must be in courses at the 400(G), 500 and 600 levels. At least half of these hours must be earned at the 500 and 600 levels.

Students must complete at least 21 graduate credit hours past the M.A. level. All students are required to take FREN 541, Atelier de méthodologie (3 credits), and FREN 540, Critique Littéraire (3 credits). Deficiencies in these areas must be made up during the first year.

- C. Students will be responsible for mastering a basic list of required readings in each of five selected areas. In all other areas, students will be responsible for mastering a minimum list of required readings.
- D. In addition to a command of French and English, the student must demonstrate reading proficiency in two other languages or advanced proficiency in one other language. The language requirement for each student will be determined by the student's graduate committee; the other language(s) selected for study should be relevant to the student's specific area of research.
- E. After completing the coursework and the language exam, all students will take the comprehensive examination which will include written examinations in each of five selected areas of concentration based on the student's coursework and the department's reading list. On the basis of performance on these examinations, the student will be (1) passed unconditionally, (2) required to take additional written examinations in areas found to be deficient, or (3) dropped from the program. Students dropped from the program may appeal to the Francophone Studies Graduate Faculty for reconsideration. Successful written examinations will be followed by an oral examination which will focus on the five selected areas of concentration and which may also cover other areas of the reading list.
- F. After completing the comprehensive examination, a student will select an area of specialization and, in consultation with the appropriate faculty members in that field, a topic for research, as well as a director for the dissertation. The student and the director will then select the student's dissertation committee. After successfully completing the comprehensive examinations, the student must also submit a dissertation prospectus. The director and all members of the student's dissertation committee must approve the prospectus. When the dissertation is completed and approved by the dissertation committee, the committee will conduct a final oral defense of the dissertation.

GEOLOGY

MASTER OF SCIENCE

Code: 8410 (400601-01)

The program of study leading to the degree of Master of Science in Geology provides coursework which will prepare the student to enter the professional field or continue studies toward a more advanced degree. The following fields are emphasized in terms of course and research opportunities: Computer Applications, Environmental Geology, Geomagnetism, Geochemistry, Geophysics including 3D seismic visualization, Hydrology, Micropaleontology, Petroleum Geology, Petrology, Remote Sensing, Sedimentology, Stratigraphy, Structural Geology, and Volcanology.

PREREQUISITES

To be admitted in regular status a student must have a degree in geology or a related field from an accredited university and meet the minimal GPA and GRE scores established by the department. A student who has not done so prior to entering the graduate program must complete certain undergraduate geology courses as determined by the Geology Graduate Committee. The student should have knowledge of other

related science and mathematics courses; the specific courses needed to satisfy this requirement will be determined by the Geology Graduate Committee when the student is accepted into the program.

COURSE REQUIREMENTS

The usual program requires 30 semester hours of graduate credit work, which comprises 6 hours of thesis credit and 24 hours of course credit. The 24 hours of course credit must include a minimum of 15 hours of graduate credit courses in geology. In addition, course level requirements for graduate work require 12 hours of 500 level courses, at least 9 of which must be in geology. Supportive graduate courses in a related field such as biology, chemistry, computer science, mathematics, petroleum engineering, physics, or statistics are encouraged. Except under special circumstances, a thesis is required. If the thesis requirement is waived, permission of the head of the department and substitution of suitable course work of not less than 12 semester hours are required.

HISTORY

MASTER OF ARTS

Code: 8501 (540101-01)

The Master of Arts degree program in history provides intensive graduate training in European, Latin American, Public and United States history. It prepares the student to pursue doctoral studies, to teach history at the secondary, community or junior college levels, or to find employment in public history fields, as well as providing rigorous study in the humanities for those from non-academic professions.

PREREQUISITES

Students applying to the M.A. program in history should have twenty-one hours of undergraduate history, including 6 hours each of European and American history or the equivalent. For regular admission to the M.A. program in history, a student must submit satisfactory GRE (Graduate Record Examination) scores, three letter of recommendation, transcripts, a writing sample (eight-12 pages), and a statement of purpose.

M.A. DEGREE PROGRAMS

Thesis and non-thesis tracks may be arranged in consultation with the student's committee chair and the Director of Graduate Studies in History.

Thesis track. The thesis track requires a minimum of 30 hours of graduate courses, with at least 18 hours in courses numbered above 500. At least 24 of the 30 hours must be taken in graduate history courses including (1) History 590, Historiography, 3 credits (taken during the student's first year); (2) History 505, Research Writing Seminar, 3 credits (taken during the student's first year); (3) a minimum of 9 semester hours, including a graduate seminar, in the student's major field of history; (4) a minimum of 6 semester hours, including a graduate seminar, in the student's minor field of history; and (5) History 599, Thesis, 6 credits. The thesis subject must be approved by the student's thesis director, who will also chair that student's committee, and by the Director of Graduate Studies in History. Six hours may, with the approval of the student's committee chair and the Director of Graduate Studies in History, be taken in a discipline other than history.

Non-thesis track. The non-thesis track requires a minimum of 33 semester hours of graduate courses, with at least 15 hours in courses numbered above 500. At least 27 of the 33 must be taken in graduate courses in history, including (1) History 590, Historiography, 3 credits (taken during the student's first year); (2) History 505, Research Writing Seminar, 3 credits (taken during the student's first year); (3) a minimum of 12 hours (including a graduate seminar) in the student's major field of history; and (4) a minimum of 6 semester hours, including a graduate seminar, in the student's minor field of history. Six hours may, with the approval of the student's committee chair and the Director of Graduate Studies in History, be taken in a discipline other than History. The Public History emphasis as a major field is pursued under this track and requires the completion of an Internship, which may necessitate travel to an internship site.

Public History thesis track. The Public History thesis track requires a minimum of 36 hours of graduate courses, with at least 18 hours in courses numbered above 500. At least 30 of the 26 hours must be taken in graduate history courses including: (1) History 590, Historiography, 3 credits (taken during the student's first year); (2) History 505, Research Writing Seminar, 3 credits (taken during the student's first year); (3) History 545, Applied Public History Studies; (4) History 461, Internship, 3 credits; (5) a minimum of 9 semester hours, including a graduate seminar, in the student's major field of history; (6) a minimum of 9 semester hours, including a graduate seminar, in the student's minor field of history; and (7) History 599, Thesis, 6 credits. The thesis subject must be approved by the student's thesis director, who will also chair that student's committee, and by the Director of Graduate Studies in History. Six hours may, with the approval of the student's committee chair and the Director of Graduate Studies in History, be taken in a discipline other than history.

Public History non-thesis track. The Public History non-thesis track requires a minimum of 36 semester hours of graduate courses, with at least 15 hours in courses numbered above 500. At least 30 of the 36 hours must be taken in graduate courses in history, including (1) History 590, Historiography, 3 credits (taken during the student's first year); (2) History 505, Research Writing Seminar, 3 credits (taken during the student's first year); (3) History 545, Applied Public History Studies; (4) History 461, Internship, 3 credits; (5) a minimum of 12 semester hours, including a graduate seminar, in the student's major field of history; and (6) a minimum of 12 semester hours, including a graduate seminar, in the student's minor field of history. Six hours may, with the approval of the student's committee chair and the Director of Graduate Studies in History, be taken in a discipline other than history.

AREAS OF GRADUATE STUDY

The Department of History offers courses in four areas: European (including British), Latin American, Public, and United States history. The student will major in one area and minor in another.

LANGUAGE REQUIREMENTS

The department does not require knowledge of an approved language other than English for the master's degree. Reading knowledge of one or more foreign languages may be required depending on area of specialization, however. The language examination must be satisfactorily completed before any part of the comprehensive examination is taken.

COMPREHENSIVE EXAMINATION

The graduate program leading to the Master of Arts degree in History will culminate in a written and oral examination designed to test the student's general knowledge of his/her major and secondary areas of history. The student is expected to have a more specialized knowledge of those parts of his/her major and secondary areas in which he or she took graduate courses, particularly in the field in which, under the thesis track, he or she is writing a thesis. Thesis students shall be examined over the separate parts of their work at the appropriate time. The comprehensive written and oral examinations shall be scheduled at the end of the student's coursework. The oral defense of thesis shall be after the completion of the thesis. The thesis must be submitted to each member of the committee well in advance of the oral defense of the thesis.

PROCEDURES

Following admission to the M.A. program in history, students will register for courses upon the advice of the Director of Graduate Studies in History. The Director of Graduate Studies will assist the student in preparing a comprehensive, but perhaps tentative, coursework projection and in selecting a major field. After the completion of 12 hours of graduate history course work, the student will declare a major field and consult with the Director of Graduate Studies to select the student's committee chair. The chair of the student's committee and the Director of Graduate Studies in History will select the other members of the student's committee. The chair of the student's committee will assume the functions of comprehensive, long-range planning and advise the student regarding each semester's registration. The Director of Graduate Studies will continue to advise the student each semester.

The maximum course load for a graduate student in history is fifteen semester hours during a regular semester and nine semester hours during a summer session. Graduate assistants with full assistantship responsibilities are restricted to a maximum of nine semester hours during a semester. It is expected that full-time students will complete all requirements for the M.A. degree within two years. However, to apply toward a master's degree, course credit must be earned within six years immediately preceding the date on which the student completes degree requirements.

MATHEMATICS

MASTER OF SCIENCE

Code: 8671 (270101-01)

The degree of Master of Science with a major in mathematics is designed to advance the student's knowledge of applied mathematics, pure mathematics, and statistics, and to introduce the student to independent study and research. Completion should enable the student to pursue a more advanced degree, teach mathematics at the secondary or college level, or use mathematical techniques in a scientific or industrial environment.

PREREQUISITES

The admission decision for a prospective student will be based on the Graduate Record Examination scores, the student's record in undergraduate mathematics or statistics, and letters of recommendation. At least nine semester hours beyond calculus, with courses in advanced calculus and linear algebra when possible, should be included in the undergraduate program.

COURSE REQUIREMENTS

The M.S. has thesis and non-thesis tracks.

The thesis track requires twenty-four semester hours of course work and the preparation of a thesis (for which six hours credit is given). A minimum of twelve semester hours in mathematics courses above the 400(G)-level are required.

The non-thesis track requires thirty-six semester hours of graduate course work, of which a minimum of eighteen hours must be above the 400(G)-level. The student may concentrate in applied mathematics by taking courses in differential equations, numerical analysis, and statistics or in pure mathematics by taking courses in algebra, analysis, and topology.

In either track, a student must complete at least one of the two-semester sequences (i.e., MATH 535-536, 537-538, 555-556, 561-562, 565-566, 573-574, 575-576, 583-584, 595-596, or STAT 523-524, STAT 530-535).

Information about specific required courses can be obtained from the department's graduate coordinator. All programs of study must be approved in advance by the coordinator.

OTHER REQUIREMENTS

Candidates must pass a comprehensive examination covering the student's course work and also basic topics from certain standard areas such as advanced calculus and linear algebra. The examination may be partly written and partly oral; when a thesis is written, part of the oral portion of the examination is a defense of the thesis.

MATHEMATICS

DOCTOR OF PHILOSOPHY

Code: 8679 (270101-01)

A student working towards a Ph.D. degree in mathematics is expected to major in one of the areas of mathematics in which there is active faculty research interest. These areas currently include algebra, analysis, applied mathematics, numerical analysis, statistics, and topology.

ADMISSION

A student desiring to enter the doctoral program must meet all requirements for admission at the master's level and must submit satisfactory scores on the Graduate Record Examination.

GENERAL REQUIREMENTS

A minimum of seventy-two semester hours of credit beyond the bachelor's degree is required; at least forty-eight of these hours must be in regular course work. A student entering the program who has had previous graduate work in applied mathematics, pure mathematics or statistics will have the program of study adjusted according to the graduate work already completed.

GENERAL COMPREHENSIVE EXAMINATION

Each student must complete five of the beginning graduate-level sequences, or their equivalents, in the following topics: abstract or linear algebra; complex or real analysis; numerical analysis; ordinary or partial differential equations; applied or mathematical statistics; and algebraic or general topology. A student must pass written exams in four of the course sequences, with at least one written exam in the area of the student's dissertation.

In addition to these written examinations, the student must pass an oral examination covering all work in the area of specialization, with special attention given to topics from advanced courses.

LANGUAGE REQUIREMENT

The student must demonstrate knowledge in either two approved natural languages other than English or a combination of two of an approved natural language, a computer language, mathematical software (such as Mathematica or MATLAB), and several statistical computer packages. Departmental approval is required.

DISSERTATION

After the student has been admitted to candidacy and a major professor has been selected, the department will recommend a dissertation committee to the Dean of the Graduate School. The major professor chairs the committee.

The dissertation must represent an original contribution to applied mathematics, pure mathematics, or statistics and must be of such quality as to be publishable in an appropriate professional journal.

FINAL EXAMINATION

A final public oral examination devoted to the defense and evaluation of the dissertation is administered after the dissertation has been approved by the dissertation committee.

MUSIC

MASTER OF MUSIC

Code: 8746 (500903-01)

The degree Master of Music is designed to develop professional and scholarly competence in a wide range of artistic and cultural areas. There are five concentrations: (1) performance, (2) conducting, (3) performance pedagogy, (4) music theory and composition, and (5) music education.

PREREQUISITES

A bachelor's degree with a major in music from an accredited institution or an academic equivalent and admission to the Graduate School are required for admission to this program.

COURSE REQUIREMENTS

Courses will be selected on the basis of entrance and diagnostic tests in the areas of theory of music, music history and literature, applied music, and conducting. On the basis of these tests, some students may be required to complete coursework which will not count in their degree program.* Candidates for the degree must complete a minimum of thirty (30) semester hours, including twelve (12) hours in the major area, six (6) hours in theory of music, and six (6) hours on music history and literature. The remaining six (6) hours will be chosen from courses specifically applicable to the degree requirements or from electives.

All full-time students must participate in a minimum of one major ensemble each semester.

In addition to course requirements, all graduate students must successfully complete the Graduate Listening Examination prior to the scheduling of their final written and oral examinations.

*Preliminary diagnostic tests must be completed prior to the beginning of classes.

NURSING

Code: 8770 (511601-01)

MASTER OF SCIENCE IN NURSING

The Master of Science in Nursing (MSN) is offered through an affiliation with the Intercollegiate Consortium for a Master of Science in Nursing (ICMSN), and is accredited by the Commission on Collegiate Nursing Education and fully approved by the Louisiana State Board of Nursing. The curriculum is designed to prepare advanced practice nurses (nurse practitioners) in Adult Health or Adult Psychiatric Mental Health. The program also offers a Nurse Educator track that is designed to prepare nurses to teach in undergraduate nursing programs, and a Nursing Leadership and in Health Care Administration track to prepare nurse managers and administrators.

Code: 8772 Adult Health Nurse Practitioner

Students who successfully complete the MSN curriculum for the nurse practitioner meet educational requirements to take the following national certification examinations, and to apply for an advanced practice license:

- Nurse Practitioner Concentration: Adult Nurse Practitioner

Code: 8774 Adult Psychiatric Mental Health Nurse Practitioner

Students who successfully complete the MSN curriculum for the nurse practitioner meet educational requirements to take the following national certification examinations, and to apply for an advanced practice license:

- Nurse Practitioner Concentration: Adult Psychiatric Mental Health NP

Code: 8773, 8775 Post Master's Nurse Practitioner

Students who successfully complete the Post-Masters curriculum for the nurse practitioner meet educational requirements to take the following national certification examinations, and to apply for an advanced practice license:

- Post-Master's Nurse Practitioner Concentration: Adult Nurse Practitioner
- Post-Master's Nurse Practitioner Concentration: Adult Psychiatric Mental Health NP

Code: 8776 Nursing Leadership and Health Care Administration

This track prepares students to function at the managerial/administrative levels within nursing service administration in a variety of health care facilities. Students who successfully complete the MSN curriculum in Nursing Leadership and Health Care Administration fulfill the educational requirements for ANCC specialty certification in Nursing Administration. Additional practice hours may be required to meet eligibility requirements for certification.

Code: 8777 Nursing Education

This specialty track prepares students to teach nursing at the undergraduate level. Students who successfully complete curriculum fulfill educational requirements for the NLN Certified Nurse Educator exam. Additional practice hours may be required to meet eligibility for requirements for certification.

PREREQUISITES FOR ADMISSION

- A baccalaureate degree from an NLN accredited undergraduate program
- A satisfactory GRE score
- A minimum cumulative undergraduate grade point average of 2.75 on a 4.0 scale
- Evidence of immunization
- Completion of a physical assessment course or evidence of physical assessment skills (Required for the Nurse Practitioner track and Nurse Education track)
- Completion of a course in introductory statistics
- Unencumbered Licensure as a registered nurse in Louisiana

The MSN program reserves the right to limit the number of students enrolled in nursing courses to make the most effective use of the educational resources available. In the event that enrollment in these courses must be limited, students will be selected by their academic ranking based upon their cumulative GPA in graduate nursing courses.

Tuition and fees are determined by the Board of Supervisors for full-time, part-time, and nonresident students. Tuition and fees are published online at www.louisiana.edu. The National League for Nursing Accrediting Commission serves as a resource for tuitions and fees information at:

National League for Nursing Accrediting Commission
61 Broadway
New York, New York 10006
(212) 363-5555 Ext. 153

DEGREE REQUIREMENTS

To earn the Master of Science in Nursing, the student must complete all degree plan requirements including:

1. A minimum of 39-42 credit hours: Nurse Practitioner track.
2. A minimum of 34-37 credit hours: Nursing Education track.
3. A Minimum of 35-38 credit hours: Nursing Leadership and Health Care Administration track.
4. A Focused Scholarly Project or a Thesis, and
5. Maintain a 3.0 GPA at all times.
6. Students who earn less than a "B" in a course will be required to repeat that course. A course may be repeated only once, and only two courses may be repeated in the curriculum. Courses with a grade of "C" or less may not be applied toward degree requirements.

ADULT HEALTH CURRICULUM NURSE PRACTITIONER		
<u>Semester 1</u>		Credit/Clock Hrs
500	Theoretical Foundations of Advanced Nursing	3
504	Issues in Advanced Nursing	3
518	Pathophysiology for Advanced Practice	3
		9
<u>Semester 2</u>		
502	Generating Evidence for Nursing Practice	3
506	Health Assessment and Diagnostic Reasoning Practicum	1/60
516	Health Assessment and Diagnostic Reasoning for Advanced Nursing	3
517	Pharmacotherapeutics for Advanced Practice	3
		10/60
<u>Semester 3</u>		
509	Population Based Primary Care	3
576	Advanced Practice Nursing: Adult Health I	4/120
*595	Focused Scholarly Project	3
OR		
*599	Thesis	3
		10/120
<u>Semester 4</u>		
577	Advanced Practice Nursing: Adult Health II	5/240
*599	Thesis	3
		8/240
<u>Semester 5</u>		
578	Advanced Practice Nursing Practicum	5/240
		5/240
TOTAL CREDIT HOURS		39/42
TOTAL CLINICAL/CLOCK HOURS		600

*All students must complete either Thesis (N599) **OR** Focused Scholarly Project (N595). Students who elect to enroll in Thesis will earn a total of 6 credits. Students who elect to enroll in Focused Scholarly Project will earn a total of 3 credits.

ADULT HEALTH CURRICULUM POST-MASTER'S NURSE PRACTITIONER		
Prerequisite Courses		Credit/Clock Hrs
506	Health Assessment and Diagnostic Reasoning Practicum	1/60
516	Health Assessment and Diagnostic Reasoning for Advanced Nursing	3
517	Pharmacotherapeutics for Advanced Practice	3
518	Pathophysiology for Advanced Practice	3
		10/60
	Post-Master's NP Adult Health Curriculum	
<u>Semester 1</u>		
509	Population Based Primary Care	3
576	Advanced Practice Nursing: Adult Health I	4/120
		7/120
<u>Semester 2</u>		
577	Advanced Practice Nursing: Adult Health II	5/240
		5/240
<u>Semester 3</u>		
578	Advanced Practice Nursing Practicum	5/240
		5/240
TOTAL CREDIT HOURS		17
TOTAL CLINICAL/CLOCK HOURS		600

ADULT PSYCHIATRIC/MENTAL HEALTH CURRICULUM NURSE PRACTITIONER		
Prerequisite Courses		Credit/Clock Hrs
Semester 1		
500/600	Theoretical Foundations of Advanced Nursing	3
504/604	Issues in Advanced Nursing	3
518/618	Pathophysiology for Advanced Practice	3
Semester 2		9
502/602	Generating Evidence for Nursing Practice	3
506/606	Health Assessment & Diagnostic Reasoning Practicum	1/60
516/616	Health Assessment & Diagnostic Reasoning for Advanced Nursing	3
517/617	Pharmacotherapeutics for Advanced Practice	3
		10/60
Semester 3		
508/608	Diagnostic Considerations & Psychopharmacology for Psychiatric Disorders	3
509/609	Population Based Primary Care	3
542/642	Advanced Practice Nursing: Adult Psychiatric/Mental Health I	4/120
*595/695	Focused Scholarly Project	3
or		
*599/699	Thesis	3
		10/120
Semester 4		
543/643	Advanced Practice Nursing: Adult Psychiatric/Mental Health II	5/240
*599/699	Thesis	3
		8/240
Semester 5		
578/678	Advanced Practice Nursing Practicum	5/240
		5/240
TOTAL CREDIT HOURS		39/42
TOTAL CLINICAL/CLOCK HOURS		600

*All students must complete either Thesis (N599/699) or Focused Scholarly Project (N959/695). Students who elect to enroll in Thesis will earn a total of 6 credits. Students who elect to enroll in Focused Scholarly Project will earn a total of 3 credits.

Intercollegiate Consortium for a Master of Science in Nursing
Southeastern Louisiana University
McNeese State University
University of Louisiana at Lafayette

NURSING LEADERSHIP and ADMINISTRATION IN HEALTHCARE CURRICULUM		
Prerequisite Courses		Credit/Clock Hrs
Semester 1 Fall		
500/600	Theoretical Foundations of Advanced Nursing	3
502/602	Generating Evidence for Nursing Practice	3
509/609	Population Based Primary Care	3
		9
Semester 2 Spring		
546/646	Policy, Organization, & Structure in Care Systems	3
548/648	Nurse Leadership/Management in Health Care Organization	3
549/649	Health Care Workforce Management	3
554/654	Nurse Leadership & Administration Field Study I	2/75
		11/75
Semester 3 Fall		
556/656	Legal & Regulatory Issues in Nursing Administration	3
558/658	Fiscal & Economic Principles for Nurse Leaders	4
555/655	Nurse Leadership & Administration Field Study II	2/75
*595/695	Focused Scholarly Project	3
or		
*599/699	Thesis	3
		12/75
Semester 4 Spring		
559/659	Nurse Leadership & Administration Internship	3/150
*595/695	Focused Scholarly Project	3
or		
*599/699	Thesis	3
		6/150
TOTAL CREDIT HOURS		35-38
TOTAL CLINICAL/CLOCK HOURS		300

*All students must complete either Thesis *(N599/699) or Focused Scholarly Project (N595/695). Students who elect to enroll in Thesis will earn a total of 6 credits. Students who elect to enroll in Focused Scholarly Project will earn a total of 3 credits.

AC/VW/PB (Coordinating Committee) 3.28.07; 7.27.07

AC/VW/DG (Coordinating Committee) 7.27.09

NURSING EDUCATION CURRICULUM		
Semester 1		
500	Theoretical Foundations of Advanced Nursing	3
533	Leadership and Management in Nursing Education	3
534	Nursing Education Concepts and Foundations	3
		9
Semester 2		
502	Generating Evidence for Nursing Practice	3
535	Curriculum and Evaluation in Nursing Education	3
536	Instructional Design in Nursing Education	3
		9
Semester 3		
537	Nursing Education Practicum	3
538	Advanced Clinical Concepts in Nursing Practice	3
*595	Focused Scholarly Project (or Elective)	3
OR		
*599	Thesis	3
		9
Semester 4		
539	Advanced Nursing Education Practicum	4
*595	Elective (or Focused Scholarly Project)	3
OR		
*599	Thesis	3
		7
TOTAL CREDIT HOURS		34/37

*All students must complete either Thesis (N599) or Focused Scholarly Project (N595). Students who elect to enroll in Thesis will earn a total of 6 credits. Students who elect to enroll in Focused Scholarly Project will earn a total of 3 credits and must also earn 3 credits in an approved graduate level elective. The elective must be approved by the Graduate Coordinator.

PHYSICS

MASTER OF SCIENCE

Code: 8830 (400801-01)

The Department of Physics offers programs leading to the degree of Master of Science in two general areas and several specialties:

- I. Applied and Theoretical Physics
 1. Acoustics
 2. Cosmology
 3. Environmental physics
 4. General relativity
 5. Instrumentation
 6. Ion beam analysis and modification
 7. Material Science
 8. Medical physics
 9. Ultrasonics

- II. Computational Physics
 - 1. Geophysics
 - 2. Physical Acoustics
 - 3. Planetary Science and Astrophysics
 - 4. Signal analysis

These programs are designed to prepare scientists and engineers to enter various technical fields or assist them to improve their skills in their current employment.

PREREQUISITES

Admission into the program assumes an undergraduate degree in science or engineering with a strong mathematical preparation. A lack of preparation in certain areas may be remedied by taking a limited number of advanced undergraduate courses during the first year of graduate study. The Graduate Record Examination (GRE) General Test including the verbal, mathematical and analytical components of the test must be taken and scores received by the University before the first semester of graduate study.

COURSE REQUIREMENTS

The specific courses taken and the choice of a secondary area pursued will be selected by the student in consultation with his/her advisor and the Graduate Coordinator of the Department of Physics. The following two tracks are available.

Thesis track:

The prospective candidate must complete 30 semester hours of which 18 semester hours are in physics courses carrying graduate credit; 12 of these semester hours must be in 500-level courses. In addition, at least 6 semester hours must be completed in an approved secondary area. The total requirement is completed with 6 credit hours for a completed thesis in one of the areas listed above. Most students are expected to be in the thesis track.

Non-thesis track:

The prospective candidate must complete 33 semester hours of which 27 semester hours are in physics courses carrying graduate credit; 18 of these semester hours must be in physics courses at the 500-level, including the Research Project course; 6 semester hours should be in an approved secondary area.

OTHER REQUIREMENTS

The prospective candidate must demonstrate his/her over-all competence by passing a comprehensive examination.

PSYCHOLOGY

MASTER OF SCIENCE

Code: 8872 (420101-01)

The graduate program in psychology offers a Master of Science degree within 3 tracks: the general-experimental track, the applied track with a thesis option, and the applied track without a thesis option. Coursework in the general-experimental track prepares students for further doctoral work. This track is suited for students who are interested in an academic career that will involve teaching and/or research. Students in the general-experimental track are required to conduct research in collaboration with psychology faculty. The end product of their research is a thesis presented to a committee comprised of graduate faculty members. Coursework in the applied track with a thesis option prepares students who are interested in pursuing a Ph.D. in an applied area of psychology at another university. Like the general-experimental track, students in the applied track with a thesis option are required to conduct research in collaboration with psychology faculty and defend a thesis. However, in addition, these students also receive academic

knowledge, technical skills and experience under professional supervision that will enable them to begin their career. Finally, the applied track without a thesis option provides students with the same training for entry into the psychological profession, but does not include the research or thesis requirement mentioned. Coursework in the applied track without a thesis option is appropriate for students seeking professional employment in community service agencies or in educational settings.

PREREQUISITES

Students who enter the program are normally expected to have completed at least 18 semester hours in psychology, which must include at least one course each in general psychology, statistics, experimental psychology, and human development. Acceptance by the Department of Psychology's Committee on Acceptance and Retention is required. To be admitted in regular status, an applicant ought to have an undergraduate GPA of 3.0, a satisfactory score on the GRE, and three letters of recommendation from undergraduate instructors.

COURSE REQUIREMENTS

General-experimental students will complete 33 semester hours. Required courses include: PSYC 511 and PSYC 515, plus three of the following: PSYC 425G (or PSYC 426G), PSYC 512, PSYC 513, PSYC 516, or PSYC 538. Students must be involved in research and enrolled in one hour of PSYC 597 during each of their first three regular semesters. Subsequent to this, at least six hours of thesis, PSYC 599, are required. Students must also take a minimum of 9 hours (3 courses) of Psychology electives. Students must also successfully pass a written preliminary exam based on the required course work. Lastly, students must successfully defend a thesis to graduate.

Applied psychology (with thesis option) students will complete 45 semester hours. Required courses include: PSYC 511 and PSYC 515, plus PSYC 425G or PSYC 426G, PSYC 517 or PSYC 534, PSYC 510, PSYC 516, PSYC 533, PSYC 535, PSYC 536, and PSYC 538. Students must be involved in research and enrolled in one hour of PSYC 597 during each of their first three semesters. At least six hours of thesis, PSYC 599, are required. Students must complete six hours of practicum, PSYC 595. Students must also take a minimum of 9 hours (3 courses) of Psychology electives. Students must successfully pass a written preliminary exam based on the required course work. Finally, students must successfully defend an oral examination based on academic and practicum experiences, as well as successfully defend a thesis based on research experiences to graduate.

Applied psychology (without thesis option) students will complete 42 semester hours. Required courses include: PSYC 511 and PSYC 515, plus PSYC 425G or PSYC 426G, PSYC 517 or PSYC 534, PSYC 510, PSYC 516, PSYC 533, PSYC 535, PSYC 536, and PSYC 538. A minimum of six hours (2 courses) of Psychology electives must be taken. Students must complete six hours of practicum, PSYC 595. Finally, students must successfully pass a written preliminary exam based on the required course work and successfully defend an oral examination based on academic and practicum experiences to graduate.

The following curriculum descriptions may be used to guide students in scheduling classes:

Experimental Psychology Curriculum (33 hours)

FALL		SPRING	
PSYC 511	(3)	PSYC 512,	
PSYC 515	(3)	PSYC 513,	
PSYC 425(G) or		PSYC 516, &/or	
PSYC 538	(3)	PSYC 426(G)	(6)
PSYC 597	(1)	PSYC 597	(1)
----		----	
1st Semester	10	2nd Semester	7
PSYC Electives*	(6)	PSYC electives*	(3)
PSYC 597	(1)	PSYC 599	(6)
----		----	
3rd Semester	7	4th Semester	9

*9 advisor-approved hours

Applied Psychology Curriculum with Thesis Option (45 hours)

FALL		SPRING		SUMMER	
PSYC 510	(3)	PSYC 536	(3)	PSYC 595	
PSYC 511	(3)	PSYC 533	(3)	(250-hour Field	
PSYC 515	(3)	PSYC 535	(3)	Practicum)	(3)
PSYC 597	(1)	PSYC 597	(1)		
	----		----		----
1st Semester	10	2nd Semester	10	1st Summer	3
PSYC 538	(3)	PSYC 517 or		PSYC 595	
PSYC 425(G) &/or		PSYC 534	(3)	(250-hour Field	
PSYC 599*	(5)	PSYC 516	(3)	Practicum)	(3)
PSYC 597	(1)	PSYC 426(G) or		PSYC 599*	(1)
		PSYC 599*	(3)		
	----		----		----
3rd Semester	9	4th Semester	9	2nd Summer	4

*3 hours of either PSYC 425(G) or PSYC 426(G), plus 6 hours of PSYC 599 (thesis) are required. Students who have not taken UN Physiological Psychology will take 425(G) plus 2 hours of thesis in the second fall, and 3 hours of thesis in the second spring. Those who have previously taken UN Physiological Psychology will take 5 hours of thesis in the fall & PSYC 426(G) in the spring.

**Students may be required to enroll for additional credit hours of 595 in order to assure that they meet training standards.

Applied Psychology Curriculum without Thesis Option (42 Hours)

FALL		SPRING		SUMMER	
PSYC 510	(3)	PSYC536	(3)	PSYC595	
PSYC 511	(3)	PSYC533	(3)	(250-hour Field	
PSYC 515	(3)	PSYC535	(3)	Practicum)	(3)
	----		----		----
1st Semester	9	2nd Semester	9	1st Summer	3
PSYC 538	(3)	PSYC 517 or		PSYC 595	
PSYC 425(G) &/or		PSYC 534	(3)	(250-hour Field	
PSYC Elective*	(6)	PSYC 516	(3)	Practicum)	(3)
		PSYC 426(G) or			
		PSYC Elective*	(3)		
	----		----		----
3rd Semester	9	4th Semester	9	2nd Summer	3

*3 hours of either PSYC 425(G) or PSYC 426(G), plus 6 hours of Electives, are required. Students who have not taken UN Physiological Psychology will take 425(G) in the fall plus 3 hours of Electives. Those who have previously taken UN Physiological Psychology will take 6 hours of electives in the second fall and PSYC 426(G) in the second spring. Elective hours may be chosen from the following: PSYC 426(G) 512, 513, 517, 530, or 534.

**Students may be required to enroll for additional credit hours of 595 in order to assure that they meet training standards.

**SPEECH PATHOLOGY
AND AUDIOLOGY****MASTER OF SCIENCE**

Code: 8963 (510204-01)

The Master's degree in speech pathology and audiology introduces students to advanced study and specialization in communicative disorders, instructs them in methods of independent investigation, enables them to satisfy the academic requirements for the Certificate of Clinical Competence of the American

Speech-Language-Hearing Association, and to acquire the requisite skills to become responsible professionals in speech-language pathology.

PREREQUISITES

- A. Must have an overall undergraduate grade point average of 2.75 or an overall grade point of 3.00 in the final 60 semester hours of undergraduate study.
- B. Must have obtained satisfactory scores on the Graduate Record Examination.
- C. Must submit three (3) letters of recommendation written by individuals who are familiar with the student's ability to do graduate work. In most instances, these letters of recommendation should be from undergraduate faculty. (The letter of recommendation requirement might be waived if the student is a graduate of the University of Louisiana at Lafayette program in Communicative Disorders and meets the other criteria for non-conditional admission).

If an applicant fails to attain any one of the above criteria, the student may be admitted on a conditional basis. Students admitted on a conditional basis must meet the University of Louisiana at Lafayette criteria for shifting from conditional to regular admission. If a student fails to meet two of the three admissions criteria stated above, he/she will be denied admission. Failure to meet prerequisites listed in E below shall not be reason to be denied admission; however, a student may not be advanced to candidacy prior to eliminating deficiencies.

- D. In addition to meeting the above requirements, the student must also meet the following departmental prerequisites:
 - 1. A course in phonetics;
 - 2. A course in normal speech and language development;
 - 3. A course in the anatomy and physiology of the speech and hearing mechanism;
 - 4. A course in basic communication science;
 - 5. A course in articulation disorders;
 - 6. An introduction to audiology;
 - 7. A course in language disorders;
 - 8. A course in clinical methods/observation;
 - 9. A course in neuroanatomy and neurophysiology;
 - 10. A course in aural habilitation;
 - 11. An undergraduate course in applied statistics. (If the student has not had this course, the student must, in the early part of his/her graduate program, take a course in statistics. This course may not count toward the 36 hours which are accumulated for the master's degree.)

COURSE REQUIREMENTS

The course requirements for the Master of Science Degree in speech pathology and audiology are 40 semester hours. Students pursuing this degree will be required to take CODI 500 (Introduction to Graduate Study and Research), CODI 504 (Voice Disorders), CODI 508 (Aphasia), CODI 526 (Language Disorders in Children), CODI 531 (Medical Speech Pathology), CODI 535 (Augmentative and Alternative Communication), CODI 540 (Fluency Disorders), CODI 524 (Communication Science), CODI 523 (Advanced Description of Disordered Speech) and CODI 550 (Advanced Clinical Research in Communicative Disorders).

Students may elect to complete a thesis as part of their master's degree. Students electing the thesis track may apply up to 6 hours of thesis credit toward the 40 hours required in their major area.

CLINICAL REQUIREMENTS

Students will be required to register for a clinical course during each semester of study. Clinical courses are not applicable to the 40 hours required for the master's degree. Students must complete a minimum of 325 clock hours of clinical practicum at the graduate level. The actual number of clock hours of practicum

performed at the graduate level will be determined by the number of hours the student had at the undergraduate level and the number of hours needed to complete the practicum distribution required for the certification being sought.

COMPREHENSIVE REQUIREMENTS

All students must take the Capstone Seminar which is typically taken during the student's final semester of study. Students who elect the thesis option must give an oral defense of their thesis in addition to taking a written examination.

OTHER REQUIREMENTS

Students pursuing the master's degree in speech pathology and audiology are expected to have writing and speaking abilities acceptable for purposes of employment as a speech and language clinician. Students who do not possess these skills will be expected to pursue remedial work.

TELECOMMUNICATIONS

MASTER OF SCIENCE IN TELECOMMUNICATIONS

Code: 8284 (141001-01)

The M.S. degree program in Telecommunications is designed to provide the electrical and/or computer engineer with both the educational and the experimental skills that may be used to solve complex problems within the fields of telecommunications and general electrical engineering. Key aspects of this degree program focus on the following topical areas: networks, fiber optics, communication system design and optimization, system controls, and materials. Additionally, the educational skills gained in obtaining this degree are also applicable toward robotics, power systems, and alternative energy utilization because of the developing distant-communicative aspects of these electrical engineering processes. The core curriculum of the department when coupled with specialty courses selected by the student in concert with his/her committee provides both specialization and a broad fundamental knowledge of the telecommunications engineering discipline. Both thesis and non-thesis programs are available. Students are encouraged to consider pursuing the thesis-based program because of the stronger educational experience this option provides due to the integration of formal courses with experimentation which generally best prepares the student for practice within the field of engineering.

PREREQUISITES

Entering students must have either (1) an Electrical Engineering B.S. degree from an ABET/EAC accredited program or (2) an approved Electrical Engineering B.S. degree from a non-accredited engineering program or (3) a B.S. degree from a closely aligned, non-engineering major. Hence, non-electrical engineering degreed applicants will be considered. However, in most cases leveling undergraduate courses will be required to ensure that the student obtains a minimally acceptable electrical and computer engineering knowledge base. The goal of the UL Lafayette College of Engineering is to position all of its M.S. graduates to be capable of successfully obtaining their respective Professional Engineering License (PE) via first passing the Fundamentals of Engineering Exam (FE). The leveling courses required for students with degrees from non-accredited or non-electrical engineering programs will be determined on a case-by-case basis by the Graduate Committee of the Electrical and Computer Engineering Department.

A student must submit Graduate Record Examination (GRE) scores before admission to the Telecommunications M.S. program can be considered. However, GRE scores are not the only criterion considered for admission, the UL Lafayette College of Engineering has adopted the following requirements to be used as *guidance for potential admission*:

The UL Lafayette College of Engineering follows all of the UL Lafayette Graduate School's rules and policies except for the following, which represent more stringent policies instituted by the College of Engineering:

- 1) GRE: Numerical Q Score + Numerical MOD A Score \geq 1,000 with the University's Minimum V Score Requirement applied as is.

NOTE: Q = Quantitative GRE Score; A = Analytical/Written GRE Score; V = Verbal GRE Score

NOTE: MOD A Score = GRE A Numerical Score \times 100

- 2) All Students (either option) must have an overall cumulative GPA \geq 3.0 or a cumulative technical GPA calculated over the last 60 hours of the Undergraduate Student's Curriculum \geq 2.85 (calculated using technical courses only – engineering, sciences, and computer science).

Any deviation from the above will require a faculty member from the Electrical and Computer Engineering Department to submit an admissions petition to the Graduate Coordinator. Upon receipt of a petition the Graduate Coordinator, in concert with the Department Head, will bring the petition forward for a graduate faculty vote. This vote requires a majority vote of the graduate faculty to allow the deviation (ties will be broken via a double vote of the Graduate Coordinator).

All other university policies will apply – including GRE verbal and TOEFL score criteria.

COURSE REQUIREMENTS

For the Thesis Program, thirty (30) semester hours of graduate credit hours with a minimum GPA of 3.0 are required as follows: (1) a minimum of 12 credit hours of 500 and/or 400G level graduate courses in the Electrical and Computer Engineering Department with 6 of these credit hours being two core department courses that will be identified for the student upon acceptance into the program; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 and MCHE 508; (3) a minimum of 3 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 3 credit hours of additional graduate courses from either the Electrical and Computer Engineering Department or another engineering department; (5) presentation of the thesis to a general audience inclusive of the thesis committee and graduate faculty; and (6) a minimum of 6 credit hours of thesis work, successful verbal defense of thesis material, and a thesis approved by the graduate committee.

For the Non-Thesis Program, thirty-six (36) semester hours of graduate credit with a minimum GPA of 3.0 are required as follows: (1) a minimum of 18 credit hours of 500 and/or 400G level graduate courses in the Electrical and Computer Engineering Department with 6 credit hours being two core department courses that will be identified for the student upon acceptance into the program; (2) 6 credit hours achieved by the successful passing of two college-level core graduate courses: ENGR 501 (or TLM 510) and MCHE 508; (3) a minimum of 6 credit hours of either mathematics, statistics, or the sciences; (4) a minimum of 6 credit hours of additional graduate courses from another engineering department; (5) a 3 credit hour directed independent study course and the presentation of a research report (based on material from one department core course); and (6) satisfactory performance on an oral comprehensive exam.

All graduate courses must be approved by both the committee chairperson and department graduate coordinator.

COURSE OFFERINGS

Accounting _____	107	Health Care Administration _____	165
Agriculture _____	108	Health Education _____	165
Anthropology _____	108	History _____	166
Architecture _____	109	Human Resources _____	167
Biology _____	110	Industrial Technology _____	168
Business Law _____	114	Instructional Resources in Education _____	169
Business Systems, Analysis and Technology _____	114	Interior Design _____	170
Center for Analysis of Spatial and Temporal Systems (GIS) _____	114	International Business _____	170
Chemical Engineering _____	115	Kinesiology _____	170
Chemistry _____	116	Management _____	172
Child and Family Studies _____	117	Marketing _____	173
Civil Engineering _____	117	Master Business Administration _____	173
Cognitive Science _____	120	Mathematics _____	174
Communication _____	121	Mechanical Engineering _____	176
Communicative Disorders _____	125	Music _____	178
Computer Science _____	127	Nursing _____	181
Co-Operative Education _____	135	Petroleum Engineering _____	184
Counseling _____	135	Philosophy _____	186
Criminal Justice _____	137	Physics _____	186
Design _____	138	Political Science _____	187
Dietetics _____	138	Psychology _____	188
Economics _____	138	Quantitative Methods _____	190
Educational Curriculum and Instruction _____	139	Reading _____	190
Educational Foundations and Leadership _____	141	Recreation _____	191
Educational Leadership _____	141	Renewable Resources _____	191
Electrical and Computer Engineering _____	144	Sociology _____	192
Engineering Management _____	151	Spanish _____	193
English _____	151	Special Education _____	194
English for Speakers of Other Languages _____	157	Statistics _____	196
Finance _____	157	Telecommunications _____	198
Foreign Literature _____	158	Theatre _____	200
French _____	158		
General Engineering _____	161		
Geography _____	162		
Geology _____	162		
German _____	164		

CONTACT AND CREDIT HOURS

The contact and credit hours of each course are shown in parentheses immediately following the course title. The first figure, lecture, indicates the number of contact hours per week in lecture, the second, lab, indicates the number of contact hours per week in laboratory, and the third represents the total semester hours credit awarded to students for satisfactory completion of the course. For example, (3, 2, 4) indicates that the student will spend three hours in lecture and two in lab per week for four semester hours credit.

CLASSIFICATION OF COURSES

(Courses numbered below 400 are offered only for undergraduate credit.)

400-499 These course numbers may carry a G which means that graduate students must take them for graduate credit. Instructors are required to distinguish clearly in their syllabi differential assignments and grading practices for graduate and undergraduate students.

500-699 Graduate level courses are open only to graduate students.

ACCOUNTING (ACCT 001)

409(G). AUDITING. (3, 0, 3). Theory and procedures of financial statement auditing; audit reporting; Code of Professional Conduct and ethical issues facing the auditing profession; other assurance services. Prereq: Grade of "C" in ACCT 303, 333.

421(G). ADVANCED TAX ACCOUNTING. (3, 0, 3). Federal income tax principles and concepts. Emphasis on property transactions, corporations, and advanced business transactions. Related ethical issues. Prereq: Grade of "C" ACCT 420.

430(G). ACCOUNTING THEORY. (3, 0, 3). Theoretical study of current literature, recent developments, and accounting pronouncements as well as conceptual and ethical issues. Prereq: Grade of "C" in ACCT 303.

522. TAX FACTORS IN MANAGEMENT DECISIONS. (3, 0, 3). First course in federal taxation. Emphasis is on tax treatment of economic transactions in business operations and individual/family situations. Topics include statutory provisions for determining individual taxable gross income, inclusions and exclusions, business income, allowable deductions, property transactions, and tax computations. Prereq: MBA 500.

523. FEDERAL INCOME TAXATION OF CORPORATIONS AND PARTNERSHIPS. (3, 0, 3). Emphasis is on federal tax laws for corporations, shareholders, and partnerships. Topics include legal concepts, statutory provisions, and the computational procedures applicable to the formation, operation, and dissolution of corporations and partnerships. Prereq: ACCT 420 or equivalent.

524. FEDERAL INCOME TAXATION OF ESTATES AND TRUSTS. (3, 0, 3). Income taxation of estates, trusts, and gifts. Topics include the advanced treatment of associated problems and tax planning. Prereq: ACCT 420 or equivalent.

526. ANALYTICAL METHODS FOR PLANNING AND CONTROL. (3, 0, 3). Elements necessary in an organization for effective administrative control are covered. Emphasis is on the "use" rather than the "supplying" of accounting data. MBA 500 or equivalent is required.

531. THEORY OF ACCOUNTING. (3, 0, 3). Study of the underlying logic associated with the formulation of accounting theory. Topics include the measurement of income, the presentation of financial statements, and different approaches to the development of accounting theory. Consideration will also be given to controversial and special areas of financial accounting. Prereq: ACCT 302 or equivalent.

532. CONTEMPORARY ACCOUNTING THOUGHT. (3, 0, 3). Study of recent and proposed developments in financial accounting. Emphasis is on recent professional pronouncements and current literature. Student communication skills are developed through writing and oral presentations. Prereq: ACCT 302 or equivalent.

533. THEORY AND PRACTICE OF INTERNATIONAL ACCOUNTING. (3, 0, 3). Comparative analysis of international accounting standards and practices. Topics include issues related to the harmonization and globalization of accounting, multi-national economic entities, and financial reporting. Prereq: ACCT 302 or equivalent.

540. INTERNAL AUDITING AND MANAGEMENT CONTROL. (3, 0, 3). Coverage of internal auditing and controls. Topics include standards and concepts, ethics, audit techniques, reporting practices, operational and quality control audits, communication skills, and organizational theory. Prereq: ACCT 409(G) or equivalent.

544. EDP AUDITING AND CONTROLS. (3, 0, 3). Theory, applications, and controls of auditing in a computer environment. Prereq: ACCT 409(G) or equivalent.

546. AUDITING THEORY AND STANDARDS. (3, 0, 3). Study of contemporary auditing theory, standards, and practices. Topics include current theory and standards, audit program development and planning, statistical sampling applications, SEC reporting, and extensions of the attest function. Prereq: ACCT 409(G) or equivalent.

597. DIRECTED RESEARCH IN ACCOUNTING. (3, 0, 3). Directed study and research in advanced accounting topics. Restr: A minimum of 18 hours of undergraduate accounting or 9 hours of graduate level accounting (excluding MBA 500) and permission of instructor, department head and program director are required.

AGRICULTURE EDUCATION (AGED 099)

500. CONTINUING ADULT EDUCATION IN AGRICULTURE. (3, 0, 3). Principles and practices employed in the preparation, presentation, and application of instruction in teaching young and older adult farmers. Restr: Valid teachers certificate in vocational agricultural education; professional experience or permission of instructor required.

ANTHROPOLOGY (ANTH 007)

454(G). GENDER ACROSS CULTURES. (3, 0, 3). Application of social definitions of appropriate and inappropriate thought, feeling, behavior, and appearance on various gender categories. Emphasis on multiple cultures and contexts. {Same as SOCI 454(G)}. Prereq: ANTH 201, Restr: If prerequisite not met permission of instructor required.

480(G). CULTURAL RESOURCE MANAGEMENT. (3, 0, 3). Critical introduction to applied anthropological perspectives and practices in contemporary society. Methods, techniques, theoretical perspectives, legislation, and regulations fundamental to the interdisciplinary field of CRM, especially public archaeology and heritage conservation.

490(G). ARCHAEOLOGY FIELD SCHOOL. (1, 9, 6). Field experience in archaeology. Training in actual excavation and field laboratory methods at area archaeological sites. Restr: Permission of instructor required.

491(G). RESEARCH IN CULTURAL ANTHROPOLOGY. (3, 0, 3). Practical introduction to research methods in cultural anthropology. Emphasis on field work techniques and independent fieldwork investigation of social and cultural patterns. Restr: Junior or senior standing and permission of instructor required.

493(G). SEMINAR IN ANTHROPOLOGY. (3, 0, 3). Examination of topics in archaeology or in cultural or physical anthropology. Variable content, may be repeated for credit. Restr: Permission of instructor required.

497(G)-498(G). SPECIAL PROJECTS IN ANTHROPOLOGY I, II. (3 ea). Independent research or reading in cultural or physical anthropology or archaeology, directed by selected faculty. Restr: Permission of instructor and department head required.

499(G). ARCHAEOLOGICAL RECORDS. (0, 6, 3). Preparation, management, and curation of technical records resulting from archaeological field work. Coreq: ANTH 490(G). Restr: Permission of instructor required.

ARCHITECTURE (ARCH 008)

424(G). HISTORY AND THEORY OF DESIGN TECHNOLOGY. (3, 0, 3). Critical study of design technologies from ancient times to the present. Prereq: ARCH 221.

464(G). CONSTRUCTION DOCUMENTS. (2, 2, 3). Case studies in construction documentation, hand and computer-aided drafting/design conventions, contracts, building codes, accessibility issues, building economics, life safety systems and construction administration. Prereq: ARCH 401.

476(G). LOUISIANA ARCHITECTURE. (3, 0, 3). History of Architecture in Louisiana from the French Colonial Period to the 20th century.

479(G). CONSERVATION, RESTORATION, AND DOCUMENTATION. (2, 2, 3). Survey of traditional and new technologies of conservation, techniques of restoration, and standards for document.

482(G). DESIGN/BUILD. (3, 0, 3). Emphasis on creative fabrication process, collaboration, and community engagement.

501. ADVANCED ARCHITECTURAL DESIGN. (0, 12, 6). Synthesis of human interaction with the environment. Comprehensive architectural design of complex building types involving integration of cultural factors, programming, conceptual issues, and construction technology.

502. ADVANCED ARCHITECTURAL DESIGN II. (0, 12, 6). Variable topics and scales including synthesis of program, site, tectonics, spatial, and theoretical issues. Prereq: ARCH 501.

509. MASTER'S PROJECT. (0, 12, 6). Individual investigation of architectural issues and theories developed with faculty and consultant. Prereq: ARCH 502.

521. HISTORY OF ARCHITECTURE. (3, 0, 3). Advanced seminar in architectural history from modernism to the present.

530. URBAN THEORY. (3, 0, 3). Comprehensive exploration of the relationship between culture, the city, planning, and urban design.

540. ARCHITECTURAL PRACTICE. (3, 0, 3). Management, contract services and administration, and professional ethics and relationships.

555. DIGITAL ARCHITECTURE. (2, 2, 3). Advanced issues and applications in modeling, rendering, and animation in the processes of architecture and planning.

560. THEORY IN ARCHITECTURE. (3, 0, 3). Examination of theoretical issues in architecture through critical reading of selected texts.

565. ARCHITECTURAL RESEARCH AND PROGRAMMING. (3, 0, 3). Comprehensive survey of research methods. Case studies include analysis of activities, spatial relationships, systems criteria, and determination of significant design issues, goals, and concepts.

580. ADVANCED TOPICS IN ARCHITECTURE. (3, 0, 3). Critical discussions on a range of architectural issues.

595. INTERNSHIP. (3).

597-598. INDIVIDUAL STUDY. (3 ea.). Restr: Permission of department head required.

599. THESIS RESEARCH AND THESIS. (1-9). Design and documentation of a comprehensive architectural thesis project that is researched, programmed and schematically articulated. Prereq: ARCH 501, 565. Grades: S, U, W.

BIOLOGY (BIOL 011)

403(G). FUNDAMENTALS OF VIROLOGY. (3, 0, 3). Structure, assay, classification, biochemistry and molecular biology of viruses.

405(G). MAMMALOGY. (3, 2, 4). Emphasis on structure, classification, distribution, life history, evolution, and identification of mammals of the world. Participation in extended field trips is required. Restr: Permission of instructor required.

406(G). ENVIRONMENTAL ASSESSMENT AND MANAGEMENT. (2, 3, 3). Role of the biologist and biology in modern environmental law and its application; environmental impact analysis; the biologist as consultant and activist; laboratory consists of analyses of actual problems facing society and government.

407(G). ENVIRONMENTAL TOXICOLOGY. (3, 3, 4). Overview of occurrence of pollutants in aquatic and terrestrial environments and the atmosphere, pollutant dynamics and metabolism, and pollutant effects on biota at different organizational levels. Laboratory centers on methodology, instrumentation, and other practical aspects. Prereq: BIOL 110, 111; CHEM 107, or permission of instructor required.

408(G). PLANT PHYSIOLOGY (3, 0, 3). Water relations, mineral nutrition, respiration, photosynthesis and light regulation, phytohormones, and movements of plants.

409(G). PLANT PHYSIOLOGY LABORATORY. (0, 5, 2). Laboratory exercises on quantitative physiological effects and enzyme, protein, light and hormonal control. Coreq: BIOL 408(G).

411(G). EVOLUTION OF PRIMATE COGNITION. (3, 0, 3). Examination of general and distinctive features of primate cognition; emphasis on social intelligence and physical reasoning. Restr: Permission of instructor required.

412(G). CONSERVATION BIOLOGY AND BIODIVERSITY. (3, 0, 3). Application of ecological and evolutionary theory to the management of rare and threatened species, communities, and ecosystems. Emphasis on human threats to wildlife species and habitats. Prereq: BIOL 203.

413(G). HERPETOLOGY. (3, 4, 4). Biology of amphibians and reptiles, including studies of diversity, evolution, behavior, ecology, physiology, and conservation. Laboratory focuses on diversity, systematics, biogeography, and conservation. Required field trips. Prereq: BIOL 203 or permission of instructor required.

414(G). ORNITHOLOGY. (3, 3, 4). Avian evolution, ecology, physiology, and behavior. Laboratories include required field trips and focus on identification, life history, and conservations of birds. Prereq: BIOL 215. Restr: Permission of instructor required.

418(G). MICROSCOPY THEORY AND APPLICATIONS. (3, 0, 3). Includes light, electron, fluorescence, and scanning probe microscopy. Emphasis on computer-based acquisition and processing of images. Prereq: BIOL 110, CHEM 108.

422(G). AQUATIC INSECTS. (2, 2, 3). Taxonomy and ecology of aquatic and semiaquatic insects; emphasis on field and laboratory recognition of major aquatic groups in Louisiana. Prereq: BIOL 321.

425(G). DEVELOPMENTAL BIOLOGY. (3, 0, 3). Basic embryology, molecular aspects of development, and some model developmental processes including the controls of differentiation, regeneration and pattern formation. Prereq: 12 hours of BIOL.

426(G). DEVELOPMENTAL BIOLOGY LABORATORY. (0, 3, 1). Observation and experimentation using embryos of sea urchin, frog and chick. Histological preparations. Coreq: BIOL 425(G).

427(G). EXPERIMENTAL DESIGN AND ANALYSIS. (1, 0, 1). Fundamentals of designing and implementing field experiments from the initial planning stage to data analysis, interpretation, and publication.

428(G). THE HISTORY OF ECOLOGICAL MODELING. (1, 0, 1). Modeling and applications of mathematical models to ecological questions.

433(G). PLANT SYSTEMATICS AND BIODIVERSITY. (3, 2, 4). Origin, evaluation, and relationship of flowering plants. Prereq: BIOL 333. Restr: If prerequisites not met permission of instructor required.

441(G). LIMNOLOGY AND OCEANOGRAPHY. (3, 3, 4). Origins, geology, physics, chemistry, and biological productivity of inland water bodies, estuaries, and oceans. Laboratory centers on methodology, instrumentation, and other practical aspects of freshwater and marine studies; required field trips. Prereq: BIOL 203, 204, CHEM 108, and MATH 105 or 109, or equivalents.

444(G). FISH CULTURE. (2, 2, 3). Propagation and production of fishes; hatchery techniques; discussion of management of culture ponds, raceways, cages, and tanks; live transport of fish; fish diseases and parasites; artificial feeding and nutrition of fishes. Field trips to state and private hatcheries and research stations. Prereq: BIOL 203, or permission of instructor required.

445(G). ICHTHYOLOGY. (2, 4, 4). Classification, zoogeography, and evolution. Includes ecological factors affecting fish community structure, adaptations of specialized fish fauna, including those of deep sea, epipelagic, polar, and coral reef habitats. Required field trips. Prereq: BIOL 203, 204. Restr: If prerequisites not met permission of instructor required.

447(G). FISHERY SCIENCE. (3, 0, 3). Fish populations and their exploitation; includes discussions of population dynamics, determination of age and growth, and management of pond, lake, reservoir, river, and marine fisheries. Prereq: BIOL 203, MATH 105 or 109.

453(G). MOLECULAR AND CELLULAR ENGINEERING. (3, 3, 4). Fundamental concepts of genetic engineering as they are currently being applied to the development of superior strains of microbes, plants, and animals for use in industry and biomedicine. Prereq: BIOL 325, CHEM 317. Coreq: BIOL 454(G). Restr: If prerequisites not met permission of instructor required.

454(G). MOLECULAR AND CELLULAR ENGINEERING LABORATORY. (0, 6, 2). Coreq: BIOL 453(G).

455(G). MOLECULAR BIOLOGY. (3, 0, 3). Structure, function and evolution of biological systems at the molecular level with emphasis on gene structure and regulation. Prereq: 12 hours of BIOL.

457(G). ADVANCED CELL BIOLOGY. (3, 0, 3). Mechanisms and pathways responsible for membrane transport, metabolism, gene expression, protein synthesis and secretion, membrane trafficking, cytoskeleton dynamics, and cell signaling. Prereq: BIOL 212 and 8 hours of BIOL.

458(G). ADVANCED CELL BIOLOGY LABORATORY. (0, 4, 2). Molecular basis of fundamental processes. Emphasis on experimentation using live cells. Coreq: BIOL 457(G).

461(G). AQUATIC AND WETLAND VASCULAR PLANTS. (2, 4, 4). Identification, ecology, and adaptations of vascular aquatic and wetland plants.

463(G). PROTISTOLOGY. (2, 4, 4). Morphology, ultrastructure, systematics, ecology, and evolutionary affinities of the motile algae and protozoa. Required field trips.

464(G). HONORS ADVANCED CELL BIOLOGY. (3, 0, 3). Restr: Permission of instructor required.

466(G). HONORS ADVANCED CELL BIOLOGY LABORATORY. (0, 4, 2). Restr: Permission of instructor required.

480(G). MARINE MICROBIOLOGY. (2, 0, 3). Ecology, function, and physiology of marine microorganisms.

481(G). MARINE MICROBIOLOGY LABORATORY. (0, 3, 1). Sampling and culturing of microorganisms from the sea.

482(G). COMPARATIVE PHYSIOLOGY. (2, 4, 4). Comparative aspects of regulatory, metabolic, and sensory physiology in animals. Emphasis on adaptations to environmental stress. Integrated laboratory. Prereq: Biol 325 or if prerequisites not met permission of instructor required.

485(G). MARINE BOTANY. (4). Comparative study of marine and coastal algae, including classification, morphology, life cycles, and ecology. Emphasis on field and laboratory studies. Restr: 16 hours of biology and permission of instructor required.

501. POPULATION GENETICS. (3, 0, 3). Theoretical and empirical approaches to the study of genetics processes in natural populations. Topics include models of selection, inbreeding, and genetic drift as well as methods for the estimation of population genetic parameters.

502. QUANTITATIVE ECOLOGY. (3, 0, 3). Quantitative methods for analysis in Ecological studies including ecological models, model selection, maximum likelihood estimation, and mark-recapture analysis.

504. ADVANCED MICROSCOPY. (1-3). Tutorial research methods in contemporary microscopy. Restr: Permission of instructor required.

507. MOLECULAR EVOLUTION. (3, 0, 3). Phylogenetic variations in DNA, RNA, proteins, and polysaccharides in plants and animals; genetic basis of evolutionary diversity.

508. COMMUNITY ECOLOGY. (2, 4, 4). Lectures emphasize theories of community organization: trophic energy flow, diffuse competition, species diversity, community stability, succession, island bio-geography. Laboratories apply quantitative analyses of community organization, using statistics and computers. Prereq: A course in statistics.

519. ADVANCED INVERTEBRATE ZOOLOGY. (3, 3, 4). Evolution, comparative structure, functional adaptation and life history of invertebrate animals, excepting insects. Readings focus on current research literature. Laboratory centers on diversity and comparative structure. Restr: Permission of instructor required.

526. ADVANCED MICROBIAL PHYSIOLOGY AND GENETICS. (3, 0, 3). Microbial nutrition, growth, metabolic reactions and control mechanisms. Prereq: BIOL 261 or permission of instructor required.

542. EVOLUTIONARY ECOLOGY. (3, 0, 3). Ecological processes as phenomena that are subject to evolutionary change. Topics include optimality theory, predator-prey interactions, life-history strategies, sexual selection, and sociality. Prereq: A course in statistics.

551-552. GRADUATE SEMINAR I, II. (1, 0, 1 ea.). Variable topic seminar designed to provide experience in proper presentation of scientific papers and in scientific criticism. Topics emphasize current biological problems.

554. ADVANCED PATHOGENIC MICROBIOLOGY. (3, 0, 3). Mechanisms of bacterial virulence functions in mounting infections in vertebrate hosts and evasion of their immune responses. Functional adaptation and evolution of virulence functions from related structures of nonpathogenic species.

558. EVOLUTION AND ADAPTATION OF THE ARTHROPODS. (2, 4, 4). Studies center on the significance of arthropodization and subsequent adaptations in form and function; convergence and homology are discussed in perspective of modern phylogenetic schemes; habitats and symbiotic relationships are discussed in the course of examining life histories. Laboratory emphasizes morphology, taxonomy, systematic literature, and field studies.

559. SYSTEMATIC METHODS. (2, 4, 4). Lectures emphasize uses and interpretation of various data sources for classification. Laboratories emphasize acquisition of methods and skills such as chromosomal analysis, enzyme electrophoresis, restriction enzyme analysis of nucleic acids, phenetic and cladistic analysis using computer software.

560. ADVANCED PROBLEMS IN BOTANY. (2-6). Research problems in plant science in areas other than that of the student's thesis or dissertation.

561. ADVANCED PROBLEMS IN ZOOLOGY. (2-6). Research problems in zoology in areas other than that of the student's thesis or dissertation.

564. TOPICS IN MARINE SCIENCE. (1-6). Advanced lecture, laboratory, and field work on a selected topic in the marine sciences at a coastal laboratory of the Louisiana Universities Marine Consortium (LUMCON). Restr: Permission of advisor and instructor required.

565. SPECIAL PROBLEMS IN MARINE SCIENCE, GRADUATE. (2-6). Directed research and study at Louisiana Universities Marine Consortium (LUMCON) or other departmentally approved coastal laboratory. Restr: Permission of advisor and instructor required.

575. STATISTICAL ECOLOGY. (4, 0, 4). Design, analysis, and presentation of results of ecological experiments and field studies, with emphasis on hypothesis testing and statistical modeling. Prereq: STAT 417(G) or permission of instructor required.

580. MARINE ECOLOGY. (3, 0, 3). Discussions of basic principles of marine ecology, including productivity, dynamics of populations, factors affecting distribution, and interactions between organisms.

581. ENVIRONMENTAL PHYSIOLOGY I. (2, 4, 4). Physiological mechanisms of adaptation of animals to physical factors in the environment. Emphasis on organismal responses to light, temperature, oxygen availability, salinity, desiccation, and pressure. Integrated laboratory exercises. Restr: Permission of instructor required.

595. SPECIAL PROJECTS. (1-6). Training/research project in areas other than that of the student's thesis or dissertation. Content varies and alternate subtitles will appear on the student's transcripts. Restr: Permission of instructor required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

604. ADVANCED TOPICS IN CELL AND MOLECULAR BIOLOGY. (3, 0, 3).

605. ADVANCED TOPICS IN ENVIRONMENTAL BIOLOGY. (3, 0, 3).

607. ADVANCED TOPICS IN EVOLUTIONARY BIOLOGY. (3, 0, 3).

609. BEHAVIORAL ECOLOGY. (3, 0, 3). Evolutionary game theory, optimal foraging theory, sexual selection theory, and kin theory.

610. BEHAVIORAL ECOLOGY LABORATORY. (0, 4, 2). Behavioral strategies used by animals during foraging, courting, fighting, and identifying kin as observed during field trips and laboratory experiments.

615. BIOCHEMICAL ADAPTATION TO THE ENVIRONMENT. (3, 0, 3). Modification of basic biochemical structure and function that enable organisms to exist in extreme environments; enzymatic and metabolic adaptation to hypoxia, salinity, temperature, pressure, humidity and light.

670. EVOLUTIONARY PROCESSES. (3, 0, 3). In-depth consideration of processes of micro- and macroevolution with emphasis on current theoretical debates including the claim of tautology, units of selection, punctuated equilibrium, adaptationism and evolutionary constraints, modes of speciation. Prereq: BIOL 501.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24).
Grades: S, U, W.

BUSINESS LAW (BLAW 039)

531. LEGAL & ETHICAL ISSUES IN HEALTH CARE. (3, 0, 3). Contemporary jurisprudence governing the American health care delivery system. Examination of traditional legal and medical relationships in the context of economic and ethical rules of conduct. Prereq: MBA 503.

535. CYBERBUSINESS LAW. (3, 0, 3). Legal and ethical developments relevant to doing business over the Internet. Addresses court decisions, federal and state statutes, administrative rulings and the legal literature regarding Internet law. Prereq: MBA 503.

BUSINESS SYSTEMS, ANALYSIS AND TECHNOLOGY (BSAT 109)

510. DATA ANALYSIS. (3, 0, 3). Business application of multivariate methods, non-parametric methods, factor analysis, logistic regression, cluster analysis, and data mining procedures using a computer statistical package. Prereq: MBA 504.

518. MANAGEMENT OF INFORMATION TECHNOLOGY. (3, 0, 3). Administration of the information systems function. Includes impact of the function, control of information systems resources, and evaluation of projects (cost/benefit analysis). Prereq: MBA 502.

530. QUANTITATIVE ANALYSIS. (3, 0, 3). Application of quantitative procedures useful in business decisions including linear programming, inventory models, simulation, PERT/CPM, and queuing models. Computer-assisted analysis. Restr: Computer competency.

CENTER FOR ANALYSIS OF SPATIAL AND TEMPORAL SYSTEMS (GIS 101)

455(G). GEOGRAPHIC INFORMATION SCIENCE I. (2, 2, 3). GIS theory and methodology, practical GIS software skills and basic scientific computing skills, map development and basic photo interpretation. Prereq: Literacy in micro- computers.

465(G). GEOGRAPHIC INFORMATION SCIENCE II. (2, 2, 3). Emphasis on practical GIS applications, advanced GIS software skills, map development and modeling. Prereq: GIS 455(G).

475(G). REMOTE SENSING IN GIS. (2, 2, 3). Introduces GIS remote sensing and analysis based on aerial photography and satellite imagery, applying this technology for analyzing spatial issues. Prereq: GIS 455(G) or GEOL 330.

485(G). ADVANCED GIS ANALYSIS AND APPLICATIONS. (2, 2, 3). Prereq: GIS 465(G) and GIS 475(G).

495(G). CAPSTONE SEMINAR. (1-3). Practical application of GIS and Remote Sensing technology to address a spatial problem more effectively within the student's chosen field of study. Prereq: GIS 485(G).

CHEMICAL ENGINEERING (CHEE 015)

400(G). PROCESS SIMULATION. (3, 0, 3). Practice in mathematical modeling and computer simulation of chemical process systems. Emphasis on solutions of differential equations as well as optimization. Preparation and execution of computer programs on digital computers. Prereq: ENGR 310, MATH 350. Restr: Senior standing.

402(G). CORROSION ENGINEERING. (3, 0, 3). Course designed to cover all important aspects of corrosion engineering and corrosion science, including corrosion principles of 8 forms of corrosion, noble metals, "exotic" metals, non-metallics, coatings, mechanical properties, corrosion testing, and modern corrosion theory. Restr: Permission of the instructor required.

405(G). PROCESS HEAT TRANSFER. (3, 0, 3). Conductive, convective, and radiative heat transfers; design rating of heat transfer equipment. Prereq: ENGR 301, 305. Coreq: CHEE 302.

408(G). COMPUTER-AIDED PROCESS DESIGN. (3, 0, 3). Process and plant design, optimization, cost estimation and economic analysis for chemical process industries. Studies include theories, industrial practices and computer-aided design technology. Students are required to make a technical presentation of their work. Prereq: CHEE 401, 407, 420(G).

413(G). PROCESS CONTROL IN CHEMICAL ENGINEERING. (2, 3, 3). Process instrumentation, process dynamic models, Laplace transform analysis of feedback and feed forward control systems. Frequency response methods, computer simulation of process control systems. Prereq: CHEE 302, 405; ENGR 310; MATH 350.

415(G). PETROCHEMICAL AND HYDROCARBON PROCESSING. (2, 3, 3). Unit processes in petroleum refining and production of petrochemicals, polymers and related products. Prereq: CHEE 401, CHEM 231.

416(G). BIOCHEMICAL ENGINEERING. (3, 0, 3). Chemical engineering principles will be used with biology and chemistry to mathematically describe and model various processes in the human body. The computer will be used as a tool for the modeling. Restr: Permission of the instructor required.

417(G). POLYMER ENGINEERING. (3, 0, 3). Introduction to the structure and physical properties of polymers and their relationships to processing. Includes laboratory demonstrations. Prereq: CHEE 317.

418(G). INDUSTRIAL WASTE TREATMENT. (3, 0, 3). Design and modeling of chemical and biochemical processes for industrial waste treatments, as an integrated part of plant design. Studies of air and water pollution controls, industrial solid waste disposal, and recent environmental protection regulations are included. Restr: Permission of instructor required.

420(G). CHEMICAL REACTION ENGINEERING. (3, 0, 3). Kinetic behavior of chemical processes, determination and prediction of specific reaction rate and order, catalysis, relationships between chemical and physical variables in heterogeneous systems as these influence the design of chemical reactors. Prereq: CHEE 310, CHEM 302.

427(G). ADVANCED MATERIALS SCIENCE AND ENGINEERING (3, 0, 3). Covers the structure-property-process-performance relationship in advanced materials. Major emphasis on structure of advanced materials, physical basis of modulus, phase transformations, alloy design, advanced metallics, advanced polymers and composites. Prereq: CHEE 317.

501. TRANSPORT PHENOMENA. (3, 0, 3). Comprehensive analysis of the physical laws which govern the transport of momentum, energy, and mass. The mathematical model is developed on the basis of the general case. Special cases, including the steady state, are treated only as ramifications of the general case. Problems illustrate practical applications of the models and methods developed.

502. ADVANCED CORROSION ENGINEERING. (3, 0, 3). Designed to cover all important aspects of corrosion in the oilfield. Emphasis will be placed on corrosion related to well completion, production, and transportation. Specific areas include carbon and alloy steels, elastomers, coatings, inhibitors, methods of corrosion monitoring, and phase behavior aspects of deep, hot wells. Restr: Permission of instructor required.

503. HEAT AND MASS TRANSFER. (3, 0, 3). Theories and engineering applications of heat and mass transfer are presented. Design equations and data for process and equipment designs are discussed. Applications in energy conservation, fuel combustion, pollution monitoring and control are included in presentation.

510. ADVANCED THERMODYNAMICS I. (3, 0, 3). Theoretical background of phase behavior and phase equilibrium for pure components and mixtures will be addressed. Various models which help describe PVT behavior on a molecular level will be discussed.

512. ADVANCED THERMODYNAMICS II. (3, 0, 3). Phase equilibrium of mixtures at high pressures will be studied and modeled on the computer. Some emphasis will also be given to chemical reactions.

514. GRADUATE SEMINAR. (1, 0, 1). Technical presentations by guests and graduate students. Discussion and interchange of ideas.

520. ADVANCED REACTOR DESIGN. (3, 0, 3). Application of advanced concepts to the design of reactors. Prereq: CHEE 420(G).

527. NANOMATERIALS AND NANOSTRUCTURES. (3, 0, 3). Origin and theoretical basis of nanotechnology related to materials, processing of nanostructured materials and composites for structural and functional applications, impact on material performance.

530. HIGH PRESSURE PHASE EQUILIBRIUM. (3, 0, 3). Application of relationships for high pressure equilibrium. Computer usage required.

535. MULTIPHASE FLOW IN PIPES. (3, 0, 3). Mathematical and computer approach to analysis of multiphase fluid flow in pipes and flow through restrictions.

541. PHYSICAL PROPERTIES OF POLYMERS. (3, 0, 3). Characterization and applications of the physical properties of polymeric materials. Includes thermal, flow, mechanical, electrical, optical and environmental properties.

597. SPECIAL TOPICS. (1-3).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

CHEMISTRY (CHEM 016)

402(G). CHEMISTRY OF MATERIALS. (3, 0, 3). Properties of solids based on their fundamental structure. Prereq: CHEM 302.

417(G). BIOCHEMISTRY II. (3, 0, 3). Metabolism, nucleic acids, protein synthesis, and other topics. Prereq: CHEM 317.

418(G). SPECIAL TOPICS IN BIOCHEMISTRY. (3, 0, 3). Advanced topics in metabolism, medical biochemistry, drug-biomolecule interactions, nucleic acid technology, physical biochemistry, etc. Prereq: CHEM 417(G).

430(G). INSTRUMENTAL ANALYSIS. (3, 4, 5). Prereq: CHEM 221, 222, 301 or 303.

451(G). INORGANIC CHEMISTRY. (3, 0, 3). Pre or Coreq: CHEM 302.

501. PHYSICAL CHEMISTRY. (3, 0, 3). Prereq: CHEM 232, 302.

502. PHYSICAL CHEMISTRY OF SURFACES. (3, 0, 3). Interfacial characteristics including the determination of surface properties and thermodynamic relationships; adsorption at, electrical aspects of, and reactions at surfaces. Applied topics emphasize nucleation, friction and lubrication, detergents and flotation, and emulsions and foams. Prereq: CHEM 302.

506. ANALYTICAL CHEMISTRY. (3, 0, 3). Prereq: CHEM 430(G).

597. DIRECTED INDIVIDUAL STUDY. (1-6). Student may accumulate 6 hours of credit toward the M.S. degree. Prereq: Student must have had the 500 level course in the major area.

CHILD AND FAMILY STUDIES (CAFS 118)

431(G). FAMILY ISSUES IN GERONTOLOGY. (3, 0, 3). Individual and family issues of people ages 55 and older. Prereq: CAFS 323 or graduate standing with permission of instructor. Formerly HUMR 431(G).

432(G). FAMILIES IN CRISIS. (3, 0, 3). Ways diverse families react to and resolve crises. Emphasis on nature of crises, impact on family functioning, and methods of prevention and management. Prereq: CAFS 323 or graduate standing with permission of instructor. Formerly HUMR 432(G).

439(G). PARENT EDUCATION. (3, 0, 3). Socio-cultural and environmental conditions affecting families with children. How parents teach, guide and influence children over the lifespan. Prereq: CAFS 339 and PSYC 313, or graduate standing and permission of instructor. Formerly HUMR 439(G).

449(G). ADMINISTRATION OF CHILD AND FAMILY PROGRAMS. (3, 0, 3). Resources for organizing and administering child care and family support programs. Philosophy, policy development, methods, and advocacy skills. Prereq: CAFS 437 or graduate standing with permission of instructor. Formerly HUMR 449(G).

497(G)-498(G). SPECIAL PROJECTS. (3 each). Individual research or writing projects. Restr: Permission of instructor required. Formerly HUMR 497(G)-498(G).

CIVIL ENGINEERING (CIVE 018)

422(G). ENVIRONMENTAL ENGINEERING II. (3, 0, 3). Survey of contemporary practices in physical, chemical, and biological treatment of water and wastewater. Design of water and wastewater treatment units, including clarifiers, flocculators, water softening processes, water filters, disinfection processes, and biological treatment units. Prereq: CIVE 322.

429 (G). HYDROLOGY. (3, 0, 3). Principles of hydrologic science and their application to hydraulic, hydrologic, environmental, and water resources engineering problems; environmental restoration and protection techniques. Prereq: ENGR 211 and ENGR 304 with a grade of "C" or better in both.

430(G). STRUCTURAL MECHANICS II. (3, 0, 3). Formulation and calculation of structural stiffness matrix, nodal displacements, reactions, and internal loadings. Includes tapered members and influence lines. Software applications. Prereq: CIVE 332 or equivalent.

434(G). HYDRAULICS. (2, 3, 3). Flow in open channels; flow through hydraulic structures; coastal hydraulics, drainage, experimental fluid mechanics. Prereq: ENGR 211 and ENGR 304 with a grade of "C" or better in both.

436(G). CIVIL ENGINEERING SYSTEMS DESIGN. (3, 0, 3). Development of a system methodology and its application to the design and operation of civil engineering systems including transportation design, traffic control, water resource design and operation, structural design, and construction management. Prereq: MATH 302. Restr: Senior standing in Civil Engineering program.

437(G). HIGHWAY SAFETY ENGINEERING. (3, 0, 3). Introduction to highway safety, fundamentals of safety analysis, highway safety management systems, safe highway design and operation, and highway safety modeling.

450(G). HIGHWAY ENGINEERING. (2, 2, 3). Analysis and design of transportation systems, geometric and pavement design, human factors, environmental impact assessment, and economic analyses of transportation alternatives. Applications to large-scale problems. Testing of materials. Prereq: CIVE 225. Coreq: CIVE 328.

460(G). WASTEWATER TREATMENT. (3, 0, 3). Pollutants of importance; design approach; pretreatment; primary, secondary, tertiary treatment alternatives; biological process design; sludge characterization and treatment. Wastewater treatment and collection system technical management. Prereq: CIVE 321.

470(G). ADVANCED REINFORCED CONCRETE DESIGN. (3, 0, 3). Continuity of reinforced concrete structures. Continuous floor beams and girders. Retaining walls. Length effects on columns. Design of flat slabs. Approximate design of cylindrical shells and spherical domes. Footings. Prereq: CIVE 427 or equivalent.

472(G). WOOD ENGINEERING DESIGN. (3, 0, 3). Structural characteristics of wood. Design of timber beams, columns, and other members. Design and selection of connectors. Glued-laminated components. Particular emphasis on wood design codes. Prereq: CIVE 332. Restr: Senior standing.

474(G). BRIDGE DESIGN. (3, 0, 3). Highway loadings and design methods currently used for short and medium span bridges constructed of concrete and/or steel. Prereq: CIVE 426 and CIVE 427.

504. MECHANICS OF SEDIMENT TRANSPORT. (3, 0, 3). Theory and application of sediment fate and transport in water bodies; environmental impact of morphological changes in natural waterways; laws governing fall velocity, incipient motion, and bed forms.

506. ADVANCED HYDROLOGY. (3, 0, 3). Quantitative approaches for modeling rainfall-runoff processes. Topics include lumped and distributed models, treatment of spatial and temporal hydrologic variability, hydrologic data quality control, and design of hydrologic networks. Restr: Permission of instructor required.

508. MATRIX ANALYSIS OF STRUCTURES. (3, 0, 3). Energy theorems. Flexibility and stiffness methods. Effects of shear deformations, axial force - bending interaction and elastic medium. Includes tapered members, substructuring redesign; material and geometrical nonlinearities, software for practical applications. Prereq: CIVE 430(G).

516. DYNAMICS OF STRUCTURES. (3, 0, 3). One degree and multi-degree freedom systems, free and forced vibrations. Numerical and mathematical analyses of elastic, elastoplastic, damped and undamped systems. Support motion, model analysis, earthquake and blast effects. Prereq: CIVE 426, 430(G).

522. ADVANCED DESIGN OF STEEL STRUCTURES. (3, 0, 3). Elastic and plastic behavior of steel members including bending, torsion, stability, local buckling. Design topics include beams, columns, plate

girders, multistory frames, tubular structures, bridges, special structures. Prereq: CIVE 426 or permission of instructor required.

524. PRESTRESSED CONCRETE. (3, 0, 3). Basic concepts of prestressed concrete; flexural analysis; moment-curvature relationship; shear, bond and bearing; elastic and ultimate strength design; simple and continuous beams; slabs; composite design; deflections. Prereq: CIVE 427 or equivalent.

526. FOUNDATION DESIGN. (3, 0, 3). Shallow foundations including spread footings, combined footing, and mat foundations; deep foundations including piles and drilled shafts; caissons and retaining structures. Structural design and foundation stability will be emphasized. Prereq: CIVE 438 or equivalent.

544. OPEN CHANNEL FLOW. (3, 0, 3). General review of the governing equations of steady and unsteady free-surface flows; advection and diffusion of constituents in open channels; calibration and validation of numerical models.

546. PROBABILISTIC METHODS IN HYDROSCIENCE. (3, 0, 3). General review of advanced probability and statistics concepts, Monte Carlo simulation of hydro-systems, probabilistic models of observed hydrologic data, optimal estimation and interpolation of geophysical fields. Use of data-intensive computer applications is emphasized. Restr: Permission of instructor required.

551. TRANSPORTATION PLANNING. (3, 0, 3). Theory of travel demand modeling; conventional four-step transportation modeling procedures including trip generation, trip distribution, modal choice, and traffic assignment; transportation modeling using GIS software.

553. TRAFFIC FLOW THEORY AND CONTROL. (3, 0, 3). Vehicle motion and traffic flow models. Urban traffic control methods, highway capacity analysis, traffic data collection, and impact studies. Traffic control devices and signal analysis using real-world data. Congestion management using Intelligent Transportation Systems. Prereq: CIVE 435, STAT 325.

555. PAVEMENT DESIGN AND MANAGEMENT. (3, 0, 3). Analysis and design of flexible and rigid pavements for highways and airfields. Pavement materials, distress analysis, and pavement condition surveys. Pavement management, maintenance, and rehabilitation. Pavement system evaluation and life-cycle cost analysis. Prereq: CIVE 450(G) or permission of instructor required.

557. TRANSPORTATION MATERIALS. (3, 0, 3). Engineering characteristics of soils and materials commonly used in transportation. Prereq: CIVE 450(G). Restr: If prerequisite not met permission of instructor required.

561. WATER TREATMENT. (3, 0, 3). Design of domestic and industrial water treatment facilities with emphasis on the basic scientific principles underlying the design procedures. Prereq: CIVE 321 or permission of instructor required.

563. SOLID AND HAZARDOUS WASTE MANAGEMENT. (3, 0, 3). Current issues and legislation. Collection, storage and disposal. Treatment technologies including incineration and sanitary and hazardous waste landfills. Prereq: CIVE 321 or permission of instructor required.

565. WATER QUALITY MODELING. (3, 0, 3). Study of hydraulic, chemical and biological concepts used in formulating numerical models of water quality. Investigation of computer modeling applied to analysis and control of water pollution. Prereq: Students must have taken CIVE 321 or equivalent course or permission of instructor required.

567. EXPERIMENTAL ANALYSIS FOR ENVIRONMENTAL ENGINEERS. (0, 6, 3). Examination of laboratory techniques for assessing water quality and sludge contamination. Optical, electrical, gas chromatography, and x-ray methods are included. Prereq: Students must have taken CIVE 321, equivalent course, or permission of instructor required.

591. SEMINAR. (1, 0, 1). May be repeated for a maximum of 4 credit hours. Contemporary research literature in Civil Engineering.

594. RESEARCH. (3). To be taken by non-thesis option master's students only. Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Grades: S, U, W.

596. SPECIAL TOPICS. (1-3).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

COGNITIVE SCIENCE (COGS 8009)

497(G). SPECIAL TOPICS. (3, 0, 3). Content varies. May be repeated for credit. Restr: Permission of instructor required.

501. HISTORY AND FOUNDATIONS OF COGNITIVE SCIENCE. (3, 0, 3). Systematic study of the historical, conceptual, and multidisciplinary roots of cognitive science. Restr: Permission of instructor required.

505. METHODS IN COGNITIVE SCIENCE. (3, 0, 3). Methodologies and ethics for research in cognitive science; methods from data collection to computational modeling. Prereq: COGS 501. Restr: If prerequisite not met permission of instructor required.

511. COGNITIVE PROCESSES. (3, 0, 3). Survey of theories and findings in cognitive processes such as perception, attention, encoding, retrieval, categorization, reasoning, and problem-solving. Prereq: COGS 501. Restr: If prerequisite not met permission of instructor required.

515. SPECIAL TOPICS IN COGNITIVE PROCESSES. (3, 0, 3). Content varies. May be repeated once for credit. Current theories and up-to-date research in memory, perception, attention, and reasoning. Prereq: COGS 511 or PSYC 516. Restr: Permission of instructor required.

525. PHILOSOPHICAL ISSUES IN COGNITIVE SCIENCE. (3, 0, 3). Critical analysis of mental states, including representation and consciousness. Prereq: PHIL 541. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

535. COMPUTATIONAL ISSUES IN COGNITIVE SCIENCE. (3, 0, 3). Content varies. May be repeated for credit. Computational models of cognition and mind. Prereq: CMPS 523. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

541. COGNITIVE NEUROSCIENCE. (3, 0, 3). Relationship between brain and cognition; emphasis on structure and function of cerebral cortex. Restr: Permission of instructor required.

545. SPECIAL TOPICS IN COGNITIVE NEUROSCIENCE. (3, 0, 3). Content varies. May be repeated once for credit. Critical examination of primary literature in one or more topics of special interest. Prereq: COGS 541. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

551. COMPARATIVE COGNITION. (3, 0, 3). Theoretical, computational, and empirical approaches to the study of cognition in human and nonhuman animals. Rest: Permission of instructor required.

555. ISSUES IN COMPARATIVE COGNITION. (3, 0, 3). Content varies. May be repeated once for credit. Similarities and differences between humans and other species. Prereq: COGS 585. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

561. COGNITIVE DEVELOPMENT. (3, 0, 3). Cognitive basis of human development; overview of research and theory. Restr: Permission of instructor required.

565. ISSUES IN COGNITIVE DEVELOPMENT. (3, 0, 3). Content varies. May be repeated once for credit. Cognitive development within the first years of life; emphasis on domains of knowledge such as naïve physics, number, language, and theory of mind. Prereq: COGS 461(G). Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

571. MIND AND LANGUAGE. (3, 0, 3). Mental structures and processes underlying linguistic and psycholinguistic processes. Prereq: COGS 501 or 511. Restr: If prerequisite not met permission of instructor required.

575. ISSUES IN MIND AND LANGUAGE. (3, 0, 3). Content varies. May be repeated once for credit. Relationship of language and cognition; emphasis on language acquisition, processing, and evolution. Prereq: COGS 511. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

581. CREATIVITY AND COGNITION. (3, 0, 3). Cognitive nature of creative processes of discovery, invention, design, ideation, and making in the realms of science, technology, and art. Prereq: COGS 501 or 511. Restr: If prerequisite not met permission of instructor required.

585. EVOLUTIONARY PERSPECTIVES ON COGNITION. (3, 0, 3). Systematic overview of higher-order psychological faculties related to self-conception, social understanding, and causal reasoning; emphasis on uniquely human processes. Restr: Permission of instructor required.

590. SPECIAL PROJECT. (1-6). Restr: Permission of instructor required.

595. SEMINAR. (1, 0, 1). Current research topics and results. Grades: CR/NC.

659. ADVANCED TOPICS IN COMPARATIVE COGNITIVE SCIENCE. (3, 0, 3). Content varies. May be repeated once for credit. Critical examination of primary literature in one or more topics of special interest. Prereq: COGS 451(G) or 555. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

669. ADVANCED TOPICS IN DEVELOPMENTAL COGNITIVE SCIENCE. (3, 0, 3). Content varies. May be repeated once for credit. Critical examination of primary literature in one or more topics of special interest. Prereq: COGS 461(G) or 540. Restr: Permission of instructor required if prerequisite not met or if repeated for credit.

681. METHODS IN BEHAVIORAL RESEARCH. (3, 0, 3). Methodologies for research in the behavioral sciences. Prereq: COGS 505. Restr: Permission of instructor required if prerequisite not met.

691. ADVANCED TOPICS IN COGNITIVE SCIENCE. (3, 0, 3). Content varies. May be repeated for credit. Restr: Permission of instructor required.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24). Grades: S, U, W.

COMMUNICATION (CMCN 096)

400(G). NONVERBAL COMMUNICATION. (3, 0, 3). Study of nonverbal codes of communication, such as gesture, facial expression, voice, distance, touch, and appearance and how they are used to express emotion, form impressions, regulate interactions, maintain relationships, deceive, and influence.

401(G). INTRODUCTION TO TRAINING AND DEVELOPMENT. (3, 0, 3). Overview of training professionals in public and private sectors. Restr: Computer proficiency needed. Formerly: CMCN 491(G).

402(G). PERSUASION. (3, 0, 3). Examines classical and contemporary persuasion models to provide working knowledge of social influence theory.

406(G). COMMUNICATION CONSULTATION. (3, 0, 3). Capstone course, roles of communication consultant in organizations, problem analysis and needs assessments, design and implementation of problem solving strategies, training and evaluation skills. Prereq: CMCN 301 and 475(G) with a grade of "C". Restr: If prerequisite not met permission of instructor required. Formerly CMCN 466(G).

411(G). ENVIRONMENTAL JOURNALISM. (3, 0, 3). How to cover such environmental issues as pollution, urban sprawl, population growth, endangered species, global climate change and other issues. Emphasizes such wetlands issues as coastal erosion, flooding, siltation, introduced species, wildlife and fisheries. Prereq: CMCN 357 or 312. Restr: If prerequisite not met permission of instructor required.

412(G). FEATURE WRITING. (3, 0, 3). Idea-development techniques, organization of material, point of view, manuscript mechanics, elaboration of a first draft, factors dictating revision and rewriting, and publication strategies. Prereq: ENGL 102 or 115 or CMCN 212.

413(G). PUBLIC AFFAIRS REPORTING. (3, 0, 3). Capstone course covering theory and practice in field reporting of news relating to government, community organizations, and public affairs. Portfolio validation required for completion. Prereq: CMCN 357 or 312.

414(G). MEDIA MANAGEMENT. (3, 0, 3). Media structure and management functions including research, sales and profitability, technical services, human resources, and public relations.

415(G). MULTIMEDIA JOURNALISM. (2, 3, 3). Basics of online audio and video news presentation in a multimedia format including techniques for basic camera use; desktop editing with audio, video and graphics for web presentation; and scripting for online writings with exercises. Prereq: CMCN 212, 215, and 338.

423(G). PR CASE STUDIES. (3, 0, 3). Preparation and analysis of PR case studies in all sectors; analysis based on the Research, Objectives, Programming and Evaluation (ROPE) paradigm; problem-analysis and problem-solving skills development. Prereq: CMCN 320.

425(G). PUBLIC RELATIONS CAMPAIGN MANAGEMENT. (2, 2, 3). Capstone course, team project of designing and developing a campaign for community client. Management of primary research, objectives, programming, budgeting, evaluation, and stewardship. Portfolio validation required for completion. Prereq: Grade of "C" in CMCN 320, 321, 423, 475. Restr: If prerequisites not met permission of instructor required.

427(G). EXPERIMENTAL DESIGN AND ANALYSIS. (1, 0, 1). Fundamentals of designing and implementing field experiments from the initial planning stage to data analysis, interpretation, and publication.

435(G). ADVERTISING MEDIA PLANNING. (3, 0, 3). Develops analytical skills; applies advertising research to practical decision-making; evaluates various advertising media related to markets and creative strategies. Prereq: CMCN 330. Restr: If prerequisites are not met permission of instructor required.

437(G). ADVERTISING CAMPAIGNS. (3, 0, 3). Capstone course. Community client projects, creative and managerial frameworks, copy platforms, positioning and media strategy, media mix, control, budgeting, evaluation, client interaction and presentations. Portfolio validation required for completion. Prereq: CMCN 341, 342, and 435. Restr: If prerequisites not met permission of instructor required.

445(G). ADVERTISING SALES STRATEGIES. (3, 0, 3). Advertising functions, sales management, account service strategies and techniques, promotion and development in competitive media markets. Prereq: CMCN 330. Restr: If prerequisite not met permission of instructor required. Formerly CMCN 485(G).

448(G). TRENDS IN 21ST CENTURY COMMUNICATION SEMINAR. (3, 0, 3). Content varies. May be repeated for credit once. Special topics seminar examining theoretical propositions, communication technology, and communicator-consumer interactivity in 21st century advertising, public relations, and institutional communication. Restr: Permission of instructor required. Formerly CMCN 457(G).

460(G). TV/FILM PRODUCING AND DIRECTING. (3, 0, 3). Individual and group projects in creating, pre-producing, producing, directing and editing video materials; advanced TV techniques. Prereq: CMCN 360 and 365.

465(G). DOCUMENTARY FILMMAKING. (2, 2, 3). Essential creative, analytical and production skills, research, documentation, writing, and production for television and filmmaking. Prereq: CMCN 360 and 365.

469(G). DIGITAL MEDIA CONVERGENCE. (3, 0, 3). Capstone course. Theoretical and practical instruction incorporating audio, video, and graphics in a multimedia environment. Portfolio validation required for completion. Prereq: CMCN 455, 460 465 or permission of instructor required.

470(G). INTERCULTURAL COMMUNICATION. (3, 0, 3). Survey of the theory and research on cultural variants in the communication process; deals with topics including language, culture and co-culture, cultural variations in perception and information processing, knowledge diffusion, and planned social change.

475(G). COMMUNICATION RESEARCH. (3, 0, 3). Methodologies, techniques, and research designs used in mass media, advertising, and public relations; management utilization of formative, informational, and evaluative research to support decision making. Formerly CMCN 405(G).

478(G). SPECIAL TOPICS IN COMMUNICATION. (3, 0, 3). Content varies. May be repeated once for credit. Analysis and discussion of a selected topic in communication beyond present course offerings. Students evaluated on the basis of research projects, written examinations and explicit learning objectives.

487(G). GLOBAL MEDIA. (3, 0, 3). Major media outside the U.S. Print and broadcast, news services, and diverse media operations. Formerly CMCN 447(G)

488(G). COMPUTER-MEDIATED-COMMUNICATION ISSUES. (3, 0, 3). Contemporary issues, including identity, community, censorship, public-private spheres, intellectual property, and electronic commerce. Formerly CMCN 468(G).

490(G). INTERNSHIP. (1, 10-15, 3). Students gain work experience in companies and organizations, learn how to develop a résumé, interview for employment and advance in their profession.

501. SUPERVISED TEACHING. (3, 0, 3). Introduction to professional practices, ethics, and teaching techniques at the college level. All teaching assistants must register for this course while fulfilling assigned teaching obligations/duties. Grades of CR/NC will be awarded because the course is not degree applicable.

503. ORGANIZATIONAL COMMUNICATION. (3, 0, 3). Process, management styles, patterns, leadership, climate, culture, systems, networks, diversity, and technology. Diagnosing communication problems and implementing change. Formerly CMCN 513.

509. INTERPERSONAL COMMUNICATION. (3, 0, 3). Verbal and nonverbal processes. Emphasis on inventory, evaluation, and skill development in varied contexts such as marriage, family, friendship, work, and leisure. Formerly CMCN 519.

511. JOURNALISM AND MASS COMMUNICATION. (3, 0, 3). Primary theories of mass media content and effects. Emphasis on role of mass media in a democracy.

526. PUBLIC RELATIONS MANAGEMENT. (3, 0, 3). Management of communication between an organization and its publics within a theoretical and managerial framework, including social, political, and economic factors that can affect relationship building. Formerly CMCN 546.

527. PUBLIC OPINION AND ISSUES MANAGEMENT. (3, 0, 3). Public opinion as a major factor in public decision-making and issues management, including the evolving definition of the construct and its import, including research and interpretation issues. Formerly CMCN 537.

528. PUBLIC RELATIONS PUBLICS. (3, 0, 3). Theories, research techniques, and analysis of targeted programs for specialized publics, including media, employees, consumers, government, community residents, investors, and donors. Formerly CMCN 547.

545. ADVERTISING. (3, 0, 3). Theories, theorists, strategies, applications, and new technologies. Formerly CMCN 556.

571. THEORY AND RESEARCH IN MASS COMMUNICATIONS. (2, 2, 3). Introduction and research methodologies. Restr: Permission of instructor required. Formerly CMCN 531.

572. COMMUNICATION THEORY. (3, 0, 3). Theories of cognitive processing, social behaviors, influence, social mobilization, diffusion of innovations, and organizational aspects of human information processing and mass media effects. Formerly CMCN 530.

575. GRADUATE RESEARCH. (3, 0, 3). Fields of communication study, research designs, and methodologies; formulation of a research plan for a thesis. Formerly CMCN 500.

576-577. SEMINAR I, II. (3, 0, 3). Content varies. Each may be repeated once. Formerly CMCN 536 and 554.

578. COMMUNICATION LAW AND ETHICS. (3, 0, 3). In-depth analysis of U.S. laws and regulations affecting communication, especially the mass media, including ethical standards. Formerly CMCN 538.

579. INTERNATIONAL COMMUNICATION LAW. (3, 0, 3). New media, privacy, defamation, copyright, and global issues of freedom of expression. Formerly CMCN 539.

580. COMMUNICATION RESEARCH DESIGN AND ANALYSIS. (3, 0, 3). Quantitative design and analysis; methods and techniques, such as instrument design, sampling, and specification and interpretation of statistics. Formerly CMCN 550.

582. INTERNATIONAL COMMUNICATION. (3, 0, 3). Cross-cultural and trans-national information flow, systems, comprehension facilitation, and the management of planned change and national development programs. Formerly CMCN 570.

581. QUALITATIVE COMMUNICATION RESEARCH METHODS. (3, 0, 3). Qualitative research design, analysis, methods, and techniques.

584. COMMUNICATION TECHNOLOGIES AND POLICIES. (3, 0, 3). Recent and emerging technologies in mass communication; formulation, and evaluation of policies to cope with social, political, commercial, workplace, regulatory, and other issues. Formerly CMCN 534.

585. COMPUTER-MEDIATED COMMUNICATION THEORY. (3, 0, 3). Impact of automation, computers, and digital communication. Includes interpersonal, organizational, legal, and social issues. Formerly CMCN 555.

597-598. DIRECTED INDIVIDUAL STUDY. (3, 0, 3 ea.). Restr: May not be used for thesis or to replace a course with the same content. Permission of instructor and department head required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

COMMUNICATIVE DISORDERS (CODI 017)

500. INTRODUCTION TO GRADUATE STUDY AND RESEARCH. (3, 0, 3). Introduction to basic research designs for projects in communicative disorders; critical analysis of literature including comprehension of statistical treatment of data in contemporary research.

504. VOICE DISORDERS. (3, 0, 3). Intensive study of voice and resonance disorders associated with laryngeal anomalies, disease processes and trauma affecting laryngeal function. Management of dysphonias associated with organic pathologies.

508. APHASIA. (3, 0, 3). Clinical study of speech and language disorders associated with aphasia in adults with emphasis on etiology, pathology, evaluation and management. Prereq: CODI 118, 219, 374.

510. CLINICAL PRACTICUM, SPEECH-LANGUAGE PATHOLOGY. (1, 10, 3). Must be repeated. Supervised practicum in speech-language assessment and intervention in various settings. The actual number of contact hours will vary according to the specific student and the specific clinical assignment. Restr: These hours cannot be applied toward the degree.

513. EXTERNSHIP IN SPEECH/LANGUAGE PATHOLOGY. (1, 30, 9). Full-time supervised practicum. Credit hours cannot be applied toward a degree. To be taken in final semester of graduate study. Prereq: Minimum of 24 graduate academic credits and 100 clock hours in clinical practicum with both children and adults.

514. INTERSESSION CLINICAL PRACTICUM. (0, 4, 2). May be repeated twice. Supervised practicum in various settings in speech-language pathology or audiology for certification purposes. Restr: These hours cannot be applied toward the academic requirements of the master's degree. Permission of instructor required.

523. SPEECH PERCEPTION AND PRODUCTION DISORDERS. (3, 0, 3). Models of speech perception and production, and the effects of impairment on normal speech production and perception. Emphases on phonological and phonetic levels of analysis, and principles of intervention. Prereq: CODI 220, 323, or permission of instructor required.

524. COMMUNICATION SCIENCE. (2, 2, 3). In-depth study of the physiologic and acoustic aspects of speech; measurement and control of environmental noise; calibration and use of instrumentation used in speech and hearing assessment and research. Prereq: CODI 219, 221, or permission of instructor required.

525. PRAGMATIC DISORDERS IN ADOLESCENTS. (3, 0, 3). Study of pragmatic disorders in adolescents by an in-depth examination of the nature of the communicative process, and the assessment procedures available for the identification and intervention for such disorders.

526. LANGUAGE DISORDERS IN CHILDREN. (3, 0, 3). Intensive study of strategies for the assessment and management of cognitive, linguistic, and pragmatic variables in child language disorders. Prereq: CODI 384 or permission of instructor required.

531. MEDICAL SPEECH PATHOLOGY. (3, 0, 3). Introduction to specialized role of the speech/language clinician in medical settings. Assessment and treatment of dysphagia; management of laryngectomy and tracheotomy patients; medical record keeping and terminology. Prereq: CODI 419 or permission of instructor required.

535. AUGMENTATIVE AND ALTERNATIVE COMMUNICATION. (3, 0, 3). Introduction to augmentative and alternative communication including its cognitive, linguistic, physical and social dimensions. Also addresses assessment and management across the lifespan.

540. DISORDERS OF SPEECH FLUENCY. (3, 0, 3). Advanced study of theories, evaluation and management principles related to dysfluent speech patterns. Emphasis on contemporary research and clinical literature.

546. CRANIOFACIAL ANOMALIES. (3, 0, 3). Detailed study of craniofacial anomalies and their relationship to communicative disorders. Consideration of genetic, anatomic, physiologic, and psychological concomitants of such conditions. Diagnosis and management of communicative disorders in relation to the total management plan for affected individuals. Prereq: CODI 419 or permission of instructor required.

548. PSYCHOLINGUISTIC DISABILITIES IN ADULTS. (3, 0, 3). Intensive study of psychological, neurological and educational theories pertaining to disorders of language in the adult population. Prereq: CODI 508.

550. ADVANCED CLINICAL RESEARCH IN COMMUNICATIVE DISORDERS. (3, 0, 3). Project includes literature review, data collection, data analysis and manuscript preparation. Prereq: CODI 500.

555. MOTOR SPEECH DISORDERS. (3, 0, 3). Study of speech disorders related to disturbances in muscular control of the speech mechanism, including cerebral palsy, resulting from impairment of any basic motor processes involved in the production of speech. Prereq: 419, or permission of instructor required.

581. HEARING MANAGEMENT. (3, 0, 3). Evaluation and management of speech and language problems associated with hearing impairment; communication systems and teaching approaches for the hearing impaired; educational and sociological aspects of deafness. Prereq: CODI 486, 521, or permission of instructor required.

583. PSYCHOACOUSTICS. (3, 0, 3). Study of the response of the human auditory system to sound stimulation, psycho-physical basis of hearing measurements, and instrumentation used in hearing measurement. Prereq: CODI 382, 524, or permission of instructor required.

589. SEMINAR IN COMMUNICATIVE DISORDERS: SPEECH PATHOLOGY. (3, 0, 3). May be repeated for a maximum of 6 credit hours. Study of contemporary research literature in an area of communicative disorders. Readings and discussions will emphasize current research in Speech Pathology. Prereq: Six hours of graduate level CODI course work or permission of instructor required.

590. SEMINAR IN COMMUNICATIVE DISORDERS: LANGUAGE. (3, 0, 3). May be repeated for a maximum of 6 credit hours. Study of contemporary research literature in communicative disorders. Readings and discussions will emphasize current research in language. Prereq: Six hours of graduate level CODI course work or permission of instructor required.

591. SEMINAR IN COMMUNICATIVE DISORDERS: HEARING. (3, 0, 3). May be repeated for a maximum of 6 credit hours. Study of contemporary research literature in the area of communicative disorders. Readings and discussions will emphasize current research in hearing. Prereq: Six hours of graduate level CODI course work or permission of instructor required.

595. CAPSTONE SEMINAR (1, 0, 1). Contemporary research on problems, methods and practices in communication disorders. Students read and critique published work for weekly discussions with faculty moderators. Grades: CR/NC.

597-598. DIRECTED INDIVIDUAL STUDY. (1-3 ea.). Detailed graduate level study of a specific topic. Restr: Permission of instructor and department head required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

600. RESEARCH COLLOQUIUM IN COMMUNICATION DISORDERS. (1, 0, 1). Forum for presenting current research and results by faculty and students. Required of all doctoral students every semester in residence. Must be completed at least twice for credit. Grading Option: CR/NC.

601. SEMINAR: SEMIOTIC THEORY AND RESEARCH. (3, 0, 3). May be repeated for credit when topics vary. Covers topics and readings in semiotic theory from the language and speech sciences including linguistics, psychology, logic and philosophy of language as applied to normal and abnormal processes in human communication.

603. SEMINAR: CLINICAL SOCIOLINGUISTICS. (3, 0, 3). Content varies. May be repeated for credit. Relationship between language and society, especially as applied to clinical data. Covers beginnings of sociolinguistics through current work.

604. SEMINAR: DIGITAL MEASUREMENT OF SPEECH. (3, 0, 3). Content varies. May be repeated for credit. Procedures, methods, and techniques applied to in-depth measurement of physiologic and acoustic aspects of speech production.

605. SEMINAR: CLINICAL LINGUISTICS. (3, 0, 3). Content varies. May be repeated for credit. Application of methods and principles from the systematic study of language and language use to data from clinical populations. Current trends in clinical linguistics.

610. SEMINAR: QUALITATIVE ANALYSIS OF SOCIAL ACTION. (3, 0, 3). May be repeated for credit topics vary. Involves the student in intensive qualitative research methods addressing social actions. Covers conversational analysis, ethnographic methods, discursive linguistics analysis and lamination techniques.

611. ADVANCED TOPICS IN COMMUNICATION DISORDERS. (3, 0, 3). May be repeated for credit when topics vary.

612. SEMINAR: APPLIED SEMIOTIC THEORY. (3, 0, 3). Content varies. May be repeated for credit. Theory and research as applied to normal sign systems and their relevance to selected disorders. May involve specific clinical and research problems.

699. DISSERTATION RESEARCH AND DISSERTATION (1-24). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

COMPUTER SCIENCE (CMPS 019)

402(G). ADVANCED PROGRAMMING FOR EDUCATORS. (3, 0, 3). Advanced programming in BASIC and a structured language such as PASCAL. Prereq: CMPS 200 or permission of the instructor required. Restr: Not open to computer science majors or minors.

411(G). SYSTEM SIMULATION. (3, 0, 3). Construction and verification of simulation models. Sampling techniques used in simulation, pseudorandom number generators and their tests. Prereq: CMPS 341, CMPS 351 and MATH 301, with a minimum grade of "C".

415(G). COMPUTER GRAPHICS. (3, 0, 3). Algorithms, analysis, and software architecture for graphical information systems, visualization, realistic rendering, and interactive user interfaces. Project on extensive image representation, transformation, and rendering. Prereq: CMPS 341, CMPS 351, both with a grade of "C"; or CMPS 405, 406, both with a grade of "B".

420(G). ARTIFICIAL INTELLIGENCE. (3, 0, 3). Theories and techniques. The background and foundations of AI, intelligent agent-based representation, problem solving and search algorithms, game playing, introduction to LISP, knowledge representation and knowledge-based systems. Introduction to other sub-areas such as: natural language processing, connectionist models and evolutionary algorithms. Prereq: CMPS 341, 351 both with a grade of "C"; or CMPS 405 with a grade of "B".

425(G). INTRODUCTION TO ROBOTICS. (3, 0, 3). Robotic manipulation systems: geometric transformations in 3-D space, forward and inverse manipulator kinematics and dynamics, trajectory generation, open-loop kinematics based manipulation control, robotic languages, and AI applications to robotics. Prereq: CMPS 341, 351; MATH 302 or 462G, all with a grade of "C".

427(G). VIDEO GAME DESIGN & DEVELOPMENT. (3, 0, 3). Design, implementation, and testing of video games. Game engine development, graphics, user input, animation, sound, music, and artificial intelligence, with an emphasis on 3D graphics. Prereq: CMPS 327. Restr: If prerequisite not met permission of instructor required.

430(G). COMPUTER ARCHITECTURE. (3, 0, 3). Hierarchical multilevel structures of computer systems; instruction sets; microprogrammed and hardwired controls; memory; pipelines and multiprocessors; performance evaluations; I/O organization; buses and channels; computer arithmetic. Prereq: CMPS 351 with a grade of "C"; or CMPS 405, 406, both with a grade of "B".

440(G). THEORY OF COMPUTATION. (3, 0, 3). Abstract basis of machines and programming; automata, context free grammars, and Turing machines; equivalence and non-equivalence of classes of devices; Chomsky hierarchy; incomputability; computational complexity. Prereq: CMPS 341, 351, both with a grade of "C".

450(G). PROGRAMMING LANGUAGES. (3, 0, 3). Formal, functional, and practical issues of design and implementation of imperative, functional, and declarative languages; denotational semantics; data types and abstraction, control abstraction, separate compilation units, concurrency. Prereq: CMPS 440(G) with a grade of "C".

451(G). COMPILER CONSTRUCTION. (3, 0, 3). Introduction to compilers and language translation. Aspects of lexical, syntactic and semantic analysis including language theory and implementation. Finite state machines, regular expressions, top-down, bottom-up parsing techniques. Code generation and optimization, subroutine calls, symbol table management, LL and LR parser generators. Prereq: CMPS 450(G) with a minimum grade of "C".

452(G). HUMAN COMPUTER INTERFACE DESIGN. (3, 0, 3). Human factors of interactive software and styles, design principles and considerations, development methods and tools, interface quality, and evaluation methods. Prereq: MATH 301; CMPS 341 and 351 with a grade of "C"; or CMPS 405 and 406 with a grade of "B".

453(G). INTRODUCTION TO SOFTWARE METHODOLOGY. (3, 0, 3). Project planning, requirement engineering, specification development techniques, structured design methods, software validation, and quality assurance. CASE tools and team dynamics. Prereq: CMPS 341, 351 both with a grade of "C"; or CMPS 405 and 406 both with a grade of "B".

455(G). OPERATING SYSTEMS. (3, 0, 3). Process management in a multiprogramming environment; CPU scheduling, concurrency, memory management, deadlock, virtual memory, and file systems. Prereq: CMPS 453(G) with a grade of "C" and experience with C and C++.

460(G). DATABASE MANAGEMENT SYSTEMS. (3, 0, 3). Design and implementation using the entity-relationship model. Declaration and manipulation. Embedded SQL and web-based database application development. Normalization, optimization, concurrency control. Prereq: CMPS 341 with a grade of "C", or CMPS 405 with a grade of "B".

500. DESIGN AND ANALYSIS OF ALGORITHMS. (3, 0, 3). Basic techniques used in design and analysis of algorithms, including divide-and-conquer, greedy methods, dynamic programming, search techniques, backtracking, branch-and-bound, and algebraic transformation. NP-Complete and NP-Hard problems, reductions among and approximations to such problems. Basic concepts surrounding the halting problem. Prereq: CMPS 341 or 406. Same as EECE 500.

502. COMPUTATIONAL BASIS OF BIOINFORMATICS. (3, 0, 3). Computational algorithms, methods and techniques underlying bioinformatics discipline. Deterministic and probabilistic approaches along with machine learning are explored. Computational principle behind sequence alignments, interaction network, gene regulation, microarray analysis, protein structure prediction and functional annotation. Prereq: CMPS 500 or equivalent and familiarity with machine learning.

503. COMPUTATIONAL GENOMICS. (3, 0, 3). Introduction to statistics, DNA Microarray technology, and machine learning. Analysis of microarray data, genomics data mining, mining interaction networks and functional annotation.

505. ADVANCED CONTROL DESIGN IN DYNAMIC SYSTEMS. (3, 0, 3). Advanced control system design applications. Topics include: State space design techniques, stability robustness, optimal control design, robust control, and fault tolerant control design. Prereq: EECE 461(G) or MCHE 474(G) or CHEE 413(G) or equivalent basic control course.

506. SYSTEM-THEORY. (3, 0, 3). System representation via state space and frequency domain modules, state estimation and system identification. Prereq: EECE 461(G). Same as EECE 506.

507. DIGITAL SIGNAL PROCESSING. (3, 0, 3). Discrete-time signals, systems, and transforms; sampling, interpolation, and decimation of signals; representations and design techniques of digital filters; fast algorithms for convolutions and discrete Fourier transform; architecture of filters and transforms. Restr: Permission of instructor required. Same as EECE 507.

508. IMAGE PROCESSING. (3, 0, 3). Review of 2-D digital signal processing, fast transform algorithms, image processing techniques; image enhancement, filtering, restoration, segmentation; image modeling; data compression for image storage and transmission; image reconstruction from noisy projections; data base structure; hardware implementation; applications in communication, medical, and computer vision. Prereq: CMPS 430(G) and 507. Same as EECE 508.

509. PATTERN RECOGNITION. (3, 0, 3). Classificatory and descriptive approaches to pattern recognition and machine perception. In the former category: statistics vs. deterministic, direct vs. indirect and parametric vs. non-parametric approaches to pattern classification. In the latter category: various techniques of scene analysis including picture segmentation, raster geometry as well as linguistic and relational approaches to picture description. Prereq: MATH 302 or equivalent. Restr: Permission of instructor required. Same as EECE 509.

512. NETWORK SECURITY. (3, 0, 3). Conventional and public-key encryption; authentication and digital signatures; key management; intruders, viruses, and worms; electronic mail security; and authentication applications.

513. PRINCIPLES OF COMPUTER COMMUNICATIONS AND NETWORKS. (3, 0, 3). Study of computer networks, including telecommunications and the related data transmission techniques. Topics include network philosophy, design and implementation. Prereq: One statistics course. Restr: Permission of instructor required. Same as EECE 513.

514. ERROR-CONTROL CODES FOR COMPUTER SYSTEMS. (3, 0, 3). Channel models, error categories, distance metrics, code fundamentals. Algebraic structures, vector spaces, matrices, polynomial Algebras, Galois fields, codes for high-speed memories, bit and byte error codes, mass memory codes, unidirectional error codes, codes for logic circuits, self-checking circuits, self-checking checkers and processors. Same as EECE 514.

515. PRINCIPLES OF COMPUTER GRAPHICS. (3, 0, 3). In-depth study of graphic man-machine interaction. Analysis of display devices with emphasis on interactive cathode-ray-tube terminals. Study of graphical display software techniques; display files, windowing, clipping, 2- and 3-dimensional transformations, hidden-line removal. Same as EECE 515.

516. CRYPTOGRAPHY AND DATA SECURITY. (3, 0, 3). Secrecy systems, encryptions, cryptanalysis, data encryption standard, applications of cryptography key management, public key systems and digital signatures, file security systems, IBM cryptographic products. Same as EECE 516.

517. DIGITAL TECHNIQUES IN TELECOMMUNICATIONS. (3, 0, 3). Voice and voice-band data digitization, bandwidth and channel capacity, coder and decoders, digital speech interpolation, digital

switching techniques and networks, traffic considerations, distributed system design for the transmission of speech and data on telecommunication lines. Same as EECE 517.

518. LOSSLESS AND LOSSY DATA COMPRESSION. (3, 0, 3). Huffman and arithmetic coding, dictionary techniques, and lossless image compression. Scaler and vector quantization, differential encoding, subband and transform coding. Prereq: CMPS 500. Same as EECE 518.

520. PRINCIPLES OF ARTIFICIAL INTELLIGENCE. (3, 0, 3). In-depth study on knowledge representation, knowledge acquisition and planning. Selected topics from natural language understanding, learning, vision, and robotics. Prereq: CMPS 420(G). Same as EECE 520.

521. AUTOMATED REASONING. (3, 0, 3). Comprehensive, study of automated reasoning. Emphasis on logical, probabilistic, and non-monotonic reasoning. Prereq: CMPS 420(G) or permission of instructor required. Same as EECE 521.

523. THE COMPUTATIONAL BASIS OF INTELLIGENCE. (3, 0, 3). Computational principles underlying human and machine intelligence. Neural models of vision, language, and higher-order cognition. Integration of artificial intelligence with neural computation. Prereq: CMPS 420(G) or 520. Same as EECE 523.

525. COMPUTER-CONTROL BASED ROBOTICS & AUTOMATION SYSTEMS. (3, 0, 3). Fundamental course in Computer-Control Based Robotic Systems. The course covers design of robotic systems, kinematics, dynamics, classical control of robotics, trajectory generation, robot languages, special computer architectures for robotic systems, sensors and introduction to robotic vision. Same as EECE 525.

526. INTELLIGENT MACHINES; THEORY, DESIGN & APPLICATIONS. (3, 0, 3). Prereq: CMPS 525 or permission of instructor required. Same as EECE 526.

527-528. COGNITIVE SCIENCE I, II. (3, 0, 3 ea.). Cognitive models from behavioral, biological and computational sciences. Same as EECE 527-528.

530. PRINCIPLES OF COMPUTER ARCHITECTURE. (3, 0, 3). Micro and parallel architectures, instruction-level parallelism, memory hierarchy, shared-memory multiprocessors, interconnection networks, and clusters. Prereq: CMPS 430(G). Restr: If prerequisite not met permission of instructor required. Same as EECE 530.

531. PARALLEL PROCESSING ORGANIZATION. (3, 0, 3). Pipelined computer organizations; array computers; multiprocessors; parallel processing algorithms and software. Prereq: CMPS/EECE 530. Same as EECE 531.

533. DISTRIBUTED COMPUTING SYSTEMS. (3, 0, 3). Detailed study of architectural support for distributed operating systems and distributed data bases, including structural functions that must be architected to form an integrated distributed computer organization that recognizes the requirements of distributed processing. Prereq: CMPS 455(G), CMPS 530, CMPS 513, or permission of instructor required. Same as EECE 533.

534. MODELING AND PERFORMANCE EVALUATION OF COMPUTER SYSTEMS. (3, 0, 3). Models and methods for performance evaluation, service time distributions, scheduling algorithms, relations between distributions and scheduling, Markovian queues, queuing network models of computer systems, product-form solutions, approximate solutions, simulation of queuing networks, measurements on computer networks, case studies. Prereq: CMPS 430(G) and 455(G). Same as EECE 534.

535. INTRODUCTION TO DATA PARALLEL ALGORITHMS AND ARCHITECTURES. (3, 0, 3). Theory of systolic algorithms and architectures: (a) models of systolic computation, performance measures and theoretical bounds, (b) processors and interconnection networks: arrays, trees, hypercubes, mesh of trees, shuffle-exchange and butterfly, (c) algorithms for sorting, searching. Fourier transforms, convolution, matrix computations and graph theory problems, (d) routing and graph embedding in massively parallel systems,

scheduling and load balancing, and (e) advanced topics: retiming, universal networks, PRAMS, DRAMS, and other new machine models. Prereq: CMPS/EECE 430(G), 500. Same as EECE 535.

538. ENTERTAINMENT COMPUTING. (3, 0, 3). Survey hardware and software used in entertainment computing applications with a focus on games software. Software interfaces and tools used in game development including graphics, audio, video, speech, animation, interface design, and networking. Programming assignments using C++. Restr: Permission of instructor required.

540. PRINCIPLES OF THE THEORY OF COMPUTATION. (3, 0, 3). Classes of computable functions and recursion theory. Unsolvable and intractable problems. Deterministic and nondeterministic polynomial bounds on complexity; NP-completeness. Abstract complexity theory. Prereq: CMPS 440(G) and 500 or permission of instructor required. Same as EECE 540.

541. AUTOMATA THEORY. (3, 0, 3). Study of finite-state automata, their structure, decomposition and homomorphisms. Prereq: CMPS 440(G) or permission of instructor required. Same as EECE 541.

542. FORMAL LANGUAGES. (3, 0, 3). Abstract models of the definition and recognition of languages. Including production grammars and various abstract machine recognizers, and classification of languages induced by such recognizers. Prereq: CMPS 440(G) or permission of instructor required.

550. PRINCIPLES OF PROGRAMMING LANGUAGES. (3, 0, 3). Formal definitions and theory of programming languages. Specifying, verifying and reasoning about programs. Study of language processors (interpreters, type-checkers, translators) in a formal framework. Prereq: CMPS 450(G) or permission of instructor required.

551. PRINCIPLES OF COMPILER DESIGN. (3, 0, 3). Detailed analysis of compiler construction. Topics to be covered include a study of techniques for semantic and syntactic analysis, parsers, scanners, organization and allocation of storage areas, and compiler compilers. Prereq: CMPS 451(G). Same as EECE 551.

553. PRINCIPLES OF SOFTWARE METHODOLOGY. (3, 0, 3). Fundamental characteristics of the software life cycle, as well as those tools, techniques, and management controls that can be applied throughout the development and maintenance of large software systems. Case studies of large-scale software efforts provide a foundation for analyzing success and failure in projects. Prereq: CMPS 550.

555. PRINCIPLES OF OPERATING SYSTEMS THEORY. (3, 0, 3). Parallel processing: communication and synchronization of processes in multiprocessing and distributed environments, proof of correctness. Deterministic scheduling. Introduction to queuing theory. Current research topics. Prereq: CMPS 455(G). Same as EECE 555.

556. SOFTWARE REQUIREMENTS AND SPECIFICATIONS. (3, 0, 3). Study of front-end software life cycle techniques and tools. Topics include requirements formulation, requirements analysis, specification languages, logical completeness, internal consistency, executable specifications, and automatic code generation systems. Prereq: CMPS 553. Same as EECE 556.

557. SOFTWARE TESTING AND VERIFICATION. (3, 0, 3). Study of techniques and tools that are used in the testing and verification of reliable software. Topics include debugging, technical reviews, static analysis, dynamic analysis, test coverage, formal verification techniques, symbolic execution, and automatic test data generation. Prereq: CMPS 553. Same as EECE 557.

561. INFORMATION STORAGE AND RETRIEVAL. (3, 0, 3). Fundamental principles of information storage and retrieval as related to textual data: file design; query languages, including natural language processing; analysis of information content by statistical, syntactic, and semantic methods; vocabulary control; indexing; system monitoring and performance evaluation. Comparative analysis of existing operational information storage and retrieval systems. Prereq: CMPS 460(G) or permission of instructor required. Same as EECE 561.

562. PRINCIPLES OF DATABASE MANAGEMENT SYSTEMS. (3, 0, 3). Formal development of the major components of a database management system. Topics include: query languages, dependencies and normalization, query optimization, and distributed database management systems. Prereq: CMPS 460(G) or permission of instructor required. Same as EECE 562.

564. INFORMATION RETRIEVAL THEORY. (3, 0, 3). Theoretical and modeling issues in information retrieval: automatic indexing; techniques for searching and ranking output; retrieval output evaluation; classical and user-oriented approaches to automatic classification; relevance feedback; the role of decision models and machine learning, in particular learning by observation and learning by induction, in the above processes. Prereq: CMPS 460(G). Restr: Permission of instructor required.

565. ADVANCED DATABASE SYSTEMS. (3, 0, 3). In-depth study of advanced systems distributed databases, multi-database systems, data models, knowledge based management systems, data mining, user interfaces, database machine, integrity, security, recovery from failure, concurrency control and spatial, temporal, active and deductive databases. Prereq: CMPS 562 or permission of instructor required. Same as EECE 565.

566. DATA MINING. (3, 0, 3). Model representation, evaluation, and search methods in data mining; knowledge discovery; classification and clustering, trend and deviation analysis, dependency derivation; integrated discovery systems, augmented database systems, and applications. Prereq: CMPS 460(G). Restr: Permission of instructor required. Same as EECE 566.

572. COMBINATORICS AND GEOMETRIC ALGORITHMS. (3, 0, 3). Introductory course about the nature of combinatorial mathematics and the application techniques of this area of mathematics to the optimization problems in CMPS and EECE. Two major areas will be studied in this course, counting techniques and graph theory. The counting techniques will cover permutation, combination, pigeonhole principle, inclusion-exclusion principle, recurrence relation, generating function, Polya's theorem, combinatorial design, and binomial coefficient. The graph theory will cover basic properties of finite and hyper graphs, graph coloring, Eulerian chains and cycles, Hamiltonian chains and cycles, trees, directed graphs, chromatic number, connectivity, 5-color theorem, and Euler's formula for planar graphs. Prereq: CMPS 341 or permission of instructor required. Same as EECE 572.

573. ANALOG VLSI DESIGN. (3, 0, 3). Design circuits for neural networks applications, current mirrors, differential amplifiers, weighted multipliers, operational amplifiers, and neuron cell design for brain-like computers; implementation in VLSI circuits using current CMOS, BiCMOS technology. Prereq: EECE 353 and 585. Same as EECE 573.

575. WIRELESS COMPUTING AND NETWORK SYSTEMS. (3, 0, 3). Course coverage includes ad hoc and cellular network systems, with focus on architectural and physical layer techniques, MAC and routing protocols, network modeling and simulation, system support for effective group communications, reliable and QoS transport systems, wireless computing and protocols. Prereq: CMPS 513 or equivalent.

576. MOBILE COMPUTING AND APPLICATIONS. (3, 0, 3). Covering mobility affects on computing and applications, with an introduction to the design and implementations of mobile Internet protocol, ranging from physical layer to application layer. Deals with system support for mobility such as security, privacy, resource discovery, route management, and optimization, dynamic host configuration protocol and other related issues. Additional topics include basic emerging applications and technologies, such as power management, sensor networks, bluetooth technology, and system modeling. Prereq: CMPS 513 or equivalent.

581. LOGIC DESIGN AND SWITCHING THEORY. (3, 0, 3). Design of synchronous and asynchronous sequential circuits, state assignment and minimization techniques, fault diagnosis in switching circuits. Prereq: EECE 341 or equivalent. Same as EECE 581.

582. COMPUTER ARITHMETIC. (3, 0, 3). Course covers the topics of computer number systems, number system structures, arithmetic operation, algorithms, implementation logic, high speed arithmetic, arithmetic

unit design and fault-tolerance of arithmetic logic units. Prereq: CMPS 530 or permission of instructor required. Same as EECE 582.

583. COMPUTER DESIGN AND IMPLEMENTATION. (3, 0, 3). Design methodology, processor design, control design, bit-slice design, and memory organization. Prereq: EECE 459 or equivalent. Same as EECE 583.

584. FAULT DIAGNOSIS OF DIGITAL SYSTEMS. (3, 0, 3). Logic model for faults, fault detection in combinational and sequential circuits, fault diagnosis design for testability, built-in testing. Prereq: CMPS 581 or permission of instructor required. Same as EECE 584.

585. VLSI DESIGN. (3, 0, 3). VLSI design methods, automation, design using PLA's, microprogrammed control design, impact of VLSI technology on computer architectures. Prereq: CMPS 430(G) or permission of instructor required. Same as EECE 585.

586. VLSI ARCHITECTURE. (3, 0, 3). Overview of VLSI design issues. Datapath and control design; systolic arrays; multiprocessor layouts; wafer scale integration. Discussion on various ongoing projects such as RISC, CHIP, etc. Prereq: CMPS/EECE 585. Same as EECE 586.

587. VLSI FABRICATION PRINCIPLES. (3, 0, 3). Principles of planar technology, fabrication of silicon and GaAs circuits and devices, CMOS, BiCMOS, yield and wafer scale integration, packaging for high speed technologies, multi-chip modular (MCM) technology. Same as EECE 587.

588. NEURAL NETWORKS. (3, 0, 3). Study of computation methods by artificial neural networks and their applications. Topics include the basic definitions and geometrical concepts; learning laws; associative networks; network architectures and description languages; applications in control, signal and image processing, and data analysis. Prereq: CMPS 430(G). Same as EECE 588.

589. INTRODUCTION TO FUZZY LOGIC SYSTEMS. (3, 0, 3). Study of fuzzy set theory and applications. Topics include (a) mathematical foundations of fuzzy logic, (b) relationship to classical probability, (c) applications in control engineering, robotics, decision analysis, pattern recognition, approximate reasoning, etc., (d) use of empirical and neural network techniques in designing fuzzy systems, and (e) implementation architectures. Same as EECE 589.

590. SPECIAL PROJECT. (1-6). Restr: Permission of department head required.

591. SCHOLARLY PAPER. (1-3). Restr: Permission of department head required.

595. GRADUATE SEMINAR. (1, 0, 1). Presentation of current research topics and results. May not be applied towards any graduate degree. Course must be taken during each semester student is enrolled in any graduate program in computer science.

598. SPECIAL TOPICS. (3, 0, 3). Content varies. Student cannot take more than once. Alternate subtitles will appear on students' transcripts. Restr: Permission of instructor required. Same as EECE 598.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

608. THEORY AND PARADIGMS IN MACHINE VISION. (3, 0, 3). Extraction and description of image features; interpretation of line drawings; shape from shading in monocular images; advanced color vision techniques; image sequence analysis; stereoscopic vision; sensing and processing of range images; advanced segmentation techniques; model-based vision; object recognition and localization; highlights on 3-D vision applications. Same as EECE 608.

609. ADVANCED TOPICS IN MACHINE VISION. (3, 0, 3). Provides the basis for conducting research in Intelligent Machine Vision Systems. Same as EECE 609.

613. ADVANCED TOPICS IN COMPUTER COMMUNICATIONS. (3, 0, 3). Advanced topics in the fields of communications and networks selected from literature. Prereq: CMPS 513 or permission of instructor required. Same as EECE 613.

614. FAULT-TOLERANT COMPUTING. (3, 0, 3). Design of fault-tolerant multiprocessors and VLSI-based system structures, system-level fault diagnosis, fault-tolerant software, functional testing, and reliability evaluation. Prereq: CMPS 530 or permission of instructor required. Same as EECE 614.

615. VIRTUAL REALITY AND VISUALIZATION. (3, 0, 3). Visual, haptic, and audio displays; input technology and 3D interaction methods, toolkits and applications; and human factors. Prereq: CMPS 415 or CMPS 427 or CMPS 515. Restr: If prerequisite not met permission of instructor required.

619. ADVANCED TOPICS IN COMPUTER SCIENCE. (3, 0, 3) . May be repeated for credit as topics vary. Restr: Permission of instructor required. Same as EECE 619.

629. ADVANCED TOPICS IN ARTIFICIAL INTELLIGENCE. (3, 0, 3). Study of research topics in Artificial Intelligence. Course may be repeated for credit as topics vary. Prereq: CMPS 512 or 521 or permission of instructor required. Same as EECE 629.

631. ADVANCED PARALLEL PROCESSING. (3, 0, 3). Continuation of CMPS 531. Advanced current topics in parallel system architecture: processors, interconnection networks, memory system, and software tools. Prereq: CMPS 531. Same as EECE 631.

639. ADVANCED TOPICS IN COMPUTER ARCHITECTURE. (3, 0, 3). May be repeated for credit as topics vary. Prereq: CMPS 530. Restr: Permission of instructor required. Same as EECE 639.

641. ADVANCED AUTOMATA THEORY. (3, 0, 3). Advanced topics in automata theory selected from the literature. Prereq: CMPS 541 or permission of instructor required. Same as EECE 641.

642. ADVANCED FORMAL LANGUAGES. (3, 0, 3). Advanced topics in formal languages selected from the literature. Prereq: CMPS 542 or permission of instructor required. Same as EECE 642.

645. MODELS OF SOFTWARE INFORMATION CONTENT. (3, 0, 3). Models and metrics for the conceptual complexity and information transfer of software documents. Applications to software development and testing. Prereq: CMPS 453(G), 500 and 540 or permission of the instructor required. Same as EECE 645.

649. ADVANCED TOPICS IN THE THEORY OF COMPUTATION. (3, 0, 3). Course may be repeated for credit as topics vary. Prereq: CMPS 540. Restr: Permission of instructor required. Same as EECE 649.

650. LANGUAGE PROCESSING FOR DISTRIBUTED SYSTEMS. (3, 0, 3). Study of the principles involved in programming distributed computer systems. Prereq: CMPS 550 and 555, or permission of instructor required. Same as EECE 650.

653. ADVANCED SOFTWARE METHODOLOGY. (3, 0, 3). In-depth study of the issues related to advanced software methods that are applied over the range of events in the software life cycle. The pragmatic aspects of this course include a software project. Future impact of software methodologies and standards are addressed as applied to various application domains. Prereq: CMPS 553 or permission of instructor required. Same as EECE 653.

655. ADVANCED OPERATING SYSTEMS. (3, 0, 3). Study of advanced topics in operating systems. Prereq: CMPS 555 or permission of instructor required. Same as EECE 655.

659. ADVANCED TOPICS IN COMPUTER SOFTWARE SYSTEMS. (3, 0, 3). May be repeated for credit as topics vary. Prereq: CMPS 550. Restr: Permission of instructor required. Same as EECE 659.

661. DATABASE THEORY. (3, 0, 3). In-depth treatment of the theoretical foundations of database management systems. Prereq: CMPS/EECE 562 with a minimum grade of "B" or permission of instructor required. Same as EECE 661.

662. INFORMATION SYSTEMS FOR MINICOMPUTERS AND NETWORKS. (3, 0, 3). Emerging research, design and implementation efforts in information systems for minicomputers, microcomputers and distributed computer networks. Focus on integrating concepts and technology from database management systems, computer systems organization, operating system design, user system interfaces, and communications into future systems. Prereq: CMPS 530 and 565 or permission of instructor required. Same as EECE 662.

669. ADVANCED TOPICS IN COMPUTER INFORMATION SYSTEMS. (3, 0, 3). May be repeated for credit as topics vary. Advanced topics in computer-based information systems. Restr: Permission of instructor required. Same as EECE 669.

679. ADVANCED TOPICS IN CAD/CAM. (3, 0, 3). May be repeated for credit as topics vary. Prereq: CMPS 570. Restr: Permission of instructor required. Same as EECE 679.

689. ADVANCED TOPICS IN HARDWARE DESIGN. (3, 0, 3). Course may be repeated for credit as topics vary. Restr: Permission of instructor required. Same as EECE 689.

695. DOCTORAL SEMINAR. (1, 0, 1). Presentation of current research. Credit does not apply to degree. Restr: Doctoral students in CMPS only.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24).
Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

CO-OPERATIVE EDUCATION (COOP)

400(G). CO-OPERATIVE EDUCATION III (0). Semester-long program of full or part-time employment in business, government, and industry arranged jointly through the Office of Career Services and the student's academic department or college. Prereq: COOP 200, 300, or permission of instructor required.

COUNSELING (COUN 110)

496(G). SPECIAL PROJECTS IN COUNSELING. (3). May be repeated for credit.

500. ORIENTATION TO ETHICAL, PROFESSIONAL, AND LEGAL ISSUES IN COUNSELING. (3, 0, 3). Goals and objectives of professional organizations, codes of ethics, legal considerations, standards of preparation, certification, licensing, best and emerging practices, and role identity of counselors. Restr: Admission to program in Counselor Education.

501. METHODS OF INQUIRY IN COUNSELING RESEARCH. (2, 2, 3). Focus on data collection, analysis, and dissemination, design of studies and methodology. Prereq or coreq: COUN 500.

502. THEORIES OF COUNSELING. (3, 0, 3). Major theories and approaches to counseling. Prereq or coreq: COUN 500. Restr: Not open to students who have earned credit for PSYC 502.

503. PRINCIPLES AND ADMINISTRATION OF SCHOOL COUNSELING. (3, 0, 3). Development of the conceptual framework for administering comprehensive proactive and reactive counseling programs in the schools. Prereq: COUN 500.

504. THEORIES AND TECHNIQUES OF APPRAISALS FOR COUNSELORS. (3, 0, 3). Psychometric and clinical methods, interpretations of information, and data-based treatment planning. Prereq: COUN 501.

505. HELPING RELATIONSHIPS. (2, 2, 3). Development of fundamental counseling skills through didactic and experiential methods. Prereq: COUN 500, COUN 502.

506. MULTICULTURAL COUNSELING. (3, 0, 3). Social and cultural perspectives on counseling diverse populations. Prereq or coreq: COUN 500, COUN 502.

507. LIFESTYLE AND CAREER DEVELOPMENT. (3, 0, 3). Interrelationships between career development theories and career counseling theories; career guidance procedures and materials. Pre or coreq: COUN 500.

509. GROUP PROCESSES. (1, 2, 3). Major theories of group counseling, dynamics, procedures, and techniques. Prereq: COUN 500, COUN 502.

510. RELATIONSHIP, MARRIAGE, AND FAMILY COUNSELING. (3, 0, 3). Theories, skills, and techniques, family dynamics, assessment, treatment planning. Prereq: COUN 500, COUN 502.

511. SUBSTANCE ABUSE AND DEPENDENCY COUNSELING. (3, 0, 3). Etiology, assessment, recovery, and strategies related to prevention, use, abuse, and dependency. Prereq: COUN 500, COUN 502.

512. COUNSELING COLLEGE STUDENTS. (3, 0, 3). Strategies for working with clients on the college campus, including academic, personal and social, and career issues. Prereq: COUN 500.

513. STUDENT DEVELOPMENT IN HIGHER EDUCATION. (3, 0, 3). Philosophy, concepts, and objectives of programming for student development in higher education. Prereq: COUN 500.

514. COUNSELING CHILDREN AND ADOLESCENTS. (3, 0, 3). Age appropriate theories and techniques. Prereq: COUN 500.

515. ORIENTATION TO THE VOCATIONAL REHABILITATION PROCESS. (3, 0, 3). History, philosophy, and trends in the delivery of rehabilitative services and the counselor's role in the restoration of the disabled citizen to optimum functioning in society. Prereq: COUN 500.

516. PSYCHOSOCIAL ASPECTS OF DISABILITY. (3, 0, 3). Effects of disabilities on the individual from the cultural, social, personal, familial and behavioral standpoints. Prereq: COUN 500, COUN 515.

517. MEDICAL ASPECTS OF DISABILITY. (3, 0, 3). Utilization and integration of medical information to develop functional rehabilitation plans for vocational goals and independent living. Prereq: COUN 500, COUN 515.

518. VOCATIONAL ANALYSIS AND ASSESSMENT OF PEOPLE WITH DISABILITIES. (3, 0, 3). Theories and approaches to career development and exploration, analysis of abilities, employment trends, meaningful employment strategies for people with disabilities. Prereq: COUN 500, COUN 515, COUN 517.

519. COUNSELING IN COMMUNITY SETTINGS. (3, 0, 3). Theories and techniques for counselors working in community and agency settings; examination of mental health delivery systems. Prereq: COUN 500, COUN 502.

520. ADVANCED APPRAISAL TECHNIQUES. (2, 2, 3). Administration and interpretation of standardized assessments in counseling settings. Prereq: COUN 501, COUN 504, PSYC 533.

521. ADVANCED SEMINAR IN COUNSELING. (3, 0, 3). Contents varies. May be repeated for credit under alternate subtitles. Prereq: COUN 502. Restr: Permission of program director required.

539. COUNSELING PRACTICUM. (1, 5, 3). Supervised experience in counseling; setting to be determined by chosen area of concentration. Prereq: Satisfactory completion of core courses in counseling. Restr: Permission of program director required.

540. COUNSELING INTERNSHIP. (3-9). Advanced supervised experience in counseling at a site appropriate to area of concentration. Prereq: COUN 539. Restr: Permission of program director required.

541. REHABILITATION COUNSELING INTERNSHIP. (3-9). Supervised field experience in an agency selected according to the student's area of interest and competency.

597. DIRECTED RESEARCH/INDEPENDENT STUDY. (3). Content varies. May be repeated for credit under alternate subtitles. Restr: Permission of instructor and program director required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

CRIMINAL JUSTICE (CJUS 062)

404(G). COMPARATIVE CRIMINAL JUSTICE SYSTEMS. (3, 0, 3). Comparative study of criminal justice systems in the United States and selected foreign countries; examines legal, police, and correctional practices. Prereq: Nine hours of CJUS or permission of instructor required.

410(G). MANAGEMENT OF CRIMINAL JUSTICE SYSTEMS. (3, 0, 3). Examination of current aspects of police, corrections, or judicial administration; emphasis is on innovative or controversial methods available to administrators. Prereq: Nine hours of CJUS or permission of instructor required.

484(G). THE OFFENDER AND SOCIETY. (3, 0, 3). Study of the relationship between the convicted offender and free society. Emphasis on sentencing theories and objectives, rehabilitation methods, and problems concerning institutionalization and reintegration. Prereq: Nine hours of CJUS or permission of instructor required.

490(G). RESEARCH METHODS. (3, 0, 3). Interaction of theory, research, and practice; purposes and limits of research; introduction to research design, data collection, analytic techniques, data processing resources, and preparation of research reports. Prereq: Nine hours of CJUS. Restr: If prerequisite not met permission of instructor required.

505. SEMINAR IN CRIME AND JUSTICE. (3, 0, 3). Crime control as a national, state, and local political and social issue; the influence of conflicting philosophies, policies and programs in criminal justice.

515. SEMINAR IN CRIMINAL JUSTICE ADMINISTRATION AND OPERATIONS. (3, 0, 3). Study of the executive's role in the criminal justice agency, with emphasis on decision-making and organizational dynamics; principles of advanced management techniques, including operations research.

561. ADVANCED CRIMINOLOGICAL THEORY. (3, 0, 3). Focus on selected criminological theories important in historical and contemporary explanations of crime.

597. DIRECTED INDIVIDUAL STUDIES. (3, 0, 3). Integrated reading or research under supervision of faculty member.

DESIGN (DSGN 115)

471(G). FIELD ANALYSIS. (3, 0, 3). May be repeated for maximum of 6 hours credit. Travel-specific seminar regarding design examination and documentation of the principle areas of design. Restr: Junior standing; permission of instructor required. Formerly ARCH 471(G).

474(G). FIELD HISTORY AND THEORY. (3, 0, 3). May be repeated for maximum of 6 hours credit. Travel-specific seminar regarding history and theory of the principle design areas. Restr: Permission of instructor required. Formerly ARCH 474(G).

480(G). TOPICS IN DESIGN. (3, 0, 3). Specific topics designed for individual Architecture and Design majors.

485(G). ADVANCED RESEARCH ISSUES. (0, 6, 3). May be repeated for a maximum of six hours. Exploration of advanced research issues in design. Prereq: ARCH 202, INDS 202, INDN 202, or FASH 203. Restr: Permission of instructor required.

DIETETICS (DIET 117)

404(G). CHILD NUTRITION. (3, 0, 3). Nutritional requirements, physiological and mental development, and eating and feeding behaviors that occur during pregnancy, lactation, infancy, and pre-school stages. Prereq: DIET 200.

405(G). NUTRITION FOR FITNESS AND SPORTS. (3, 0, 3). Nutritional requirements of the sports active individual with emphasis on nutrient interactions, diet, and supplementation. Prereq: DIET 200 or 214.

ECONOMICS (ECON 024)

401(G). INDUSTRIAL STRUCTURE AND GOVERNMENTAL POLICY. (3, 0, 3). Analysis of the effect of modern industrial structure on competitive behavior and performance from the viewpoint of contemporary price theory and the theory of workable competition. Particular attention is devoted to firm behavior and performance in unregulated markets and the modifications of these which result from government intervention. Prereq: ECON 202.

404(G). ENVIRONMENTAL ECONOMICS. (3, 0, 3). Economic evaluation of natural resources and environmental economic issues and public policies that face the global economy, including the allocation, use, and preservation of renewable resources, property rights, and externalities. Prereq: ECON 202 or ECON 300. Restr: If prerequisites not met permission of instructor required.

409(G). LABOR ECONOMICS. (3, 0, 3). Evaluation of collective bargaining and functional relationships in negotiation. Economic, social, and legal consequences of agreements. Comparative study of labor-management relations in other economic systems. Prereq: ECON 201 and 202.

430(G). INDUSTRIAL ECONOMICS AND FINANCE. (3, 0, 3). Economic and financial considerations in the design and selection of industrial projects. Capital growth. Net present value and related analytical procedures. Effects of taxes, inflation, and risk. Prereq: MATH 301. Restr: If prerequisite not met permission of instructor required.

510. BUSINESS CONDITIONS ANALYSIS. (3, 0, 3). Techniques and methodology of forecasting changes in business activity. Analysis of factors related to business cycles and their relevance for business decision making. Prereq: MBA 501.

515. MACROECONOMIC THEORY AND POLICY. (3, 0, 3). Study of the determination of national income, the level of employment, and the price level. Emphasis on fiscal and monetary policy as it affects the business environment. Prereq: MBA 501.

519. GOVERNMENT POLICY TOWARDS BUSINESS. (3, 0, 3). Examination of the rationale behind the actual effects of federal government statutes and policies in the areas of antitrust, public utilities, quasipublic utilities, public enterprises and multinational corporations. Particular attention is given to firm behavior in unregulated markets and the modifications of this behavior which result from government intervention. Prereq: MBA 501.

528. MANAGERIAL ECONOMICS. (3, 0, 3). Application of microeconomic tools to business decision making; topics include theoretical and empirical demand and cost functions, pricing under various market conditions and regulatory constraints, short run and long run planning, and domestic and international conditions influencing the firm's profitability and growth. Prereq: MBA 501 or equivalent required.

530. HEALTH CARE ECONOMICS & FINANCE. (3, 0, 3). Public policy/regulations and principles of finance and financial decision making applied to health services. Public and private mechanisms for financing the treatment of illness and needs of special population groups. Prereq: MBA 501.

597. DIRECTED INDIVIDUAL STUDY. (3, 0, 3). Detailed independent graduate level study and research, under faculty direction. A prospectus and the product(s) of the study will become part of the student's file. Restr: Permission of instructor and director of program required.

EDUCATIONAL CURRICULUM AND INSTRUCTION (EDCI 037)

405(G). DEVELOPMENTAL FOUNDATIONS OF EARLY CHILDHOOD EDUCATION AND EARLY INTERVENTION. (3, 0, 3). Characteristics, identification, and development of programming for early intervention. Prereq: SPED 300, 491 or 502. Same as SPED 405(G).

408(G). INTEGRATED PK-3 PROGRAM DESIGN AND INSTRUCTION. (3, 0, 3). Integration of content, strategies, and materials in early childhood programs, with emphasis on program design and models, curriculum planning, diversity, and special needs children. Prereq: EDCI/SPED 405(G), EDCI 407, SPED 422(G), HUMR 329, KNES 307, and Block II courses in PK-3 program.

411(G). DEVELOPMENTAL ASSESSMENT AND RESEARCH IN EARLY CHILDHOOD EDUCATION. (3, 0, 3). Purposes and processes of assessment; interpretation and application of assessment data; and research and trends. Prereq: EDCI/SPED 405(G) and EDCI/SPED 407, SPED 422(G), HUMR 329, KNES 307, and Block II courses in PK-3 program.

416(G). MATERIALS AND MEDIA OF INSTRUCTION. (2, 2, 3). Production and use of instructional materials and media. Open to graduate students in other academic disciplines.

463(G). SECONDARY SCHOOL FOREIGN LANGUAGE METHODS. (3, 0, 3). Strategies and materials for teaching secondary foreign language. Restr: Graduate status or successful completion of all courses listed for the freshman and sophomore years of the student's curriculum; a grade point average of 2.5 overall and a grade of "C" or better in all courses taken in the major and minor fields of study.

471(G). PROFESSIONAL PREPARATION FOR ESOL TEACHERS. (3, 0, 3). Theories, practical approaches and techniques for teaching ESOL to elementary, secondary, and adult education students.

495(G)-496(G). SPECIAL PROJECTS IN EDUCATION. (1-3 each). Restr: Appropriate standing and permission of department required.

500. SOCIAL-EMOTIONAL NEEDS OF THE GIFTED. (3, 0, 3). Affective needs of academically and creatively talented students. Emphasis on issues which are functions of these abilities and societal perceptions and expectations of such students. Same as SPED 500.

503. DEVELOPING CREATIVITY IN THE CLASSROOM. (3, 0, 3). Various conceptions of creativity. Methods for eliciting creative thinking from students, application of creative problem solving strategies, and exploration of personal creativity. Same as SPED 503.

506. NATURE AND NEEDS OF GIFTED CHILDREN. (3, 0, 3). Characteristics, needs, and learning difficulties of gifted/creative children. Overview of programs, strategies, curricular adjustments for gifted.

507. WRITING FOR THE RESPONSIVE PROFESSIONAL. (3, 0, 3). Use of descriptive, analytic, and reflective writing to document teaching practices and student learning.

508. RESEARCH METHODS TO IMPACT STUDENT LEARNING. (3, 0, 3). Reading and use of educational research literature, particularly educational statistical (assessment) information, to improve instruction.

514. CAREER EDUCATION CURRICULUM DEVELOPMENT. (3, 0, 3). Comprehensive study of the career education movement with special emphasis on the implementation of career education concepts in academic and vocational programs.

515. SEMINAR. (3). Contemporary educational problems. Restr: Master's Degree required.

516. EVOLUTION OF CURRICULUM AND INSTRUCTION. (3, 0, 3). Methods of enhancing use of "best practice" strategies in teaching and learning, and corresponding theoretical underpinnings. Restr: Teaching certification required.

521. ELEMENTARY LANGUAGE ARTS METHODS. (3, 0, 3). Data-driven instruction, curriculum, needs of diverse learners, building a literature base to support language arts integration in the content areas, and research and assessment; technology integrated throughout the course. Pre or coreq: EDCI 507, 508. Restr: Teaching certification required.

523. ELEMENTARY MATHEMATICS METHODS. (3, 0, 3). Analysis and application of concepts, processes, and uses of mathematics. Delivery of instruction. Technology integrated throughout the course. Prereq: EDCI 507, 508. Restr: Teaching certification required.

525. ELEMENTARY SOCIAL STUDIES METHODS. (3, 0, 3). Assessment, differentiation, curriculum, research and technology. Trends in the field and impact on learning. Prereq: EDCI 507, 508. Restr: Teaching certification required.

527. ELEMENTARY SCIENCE METHODS. (3, 0, 3). Development and delivery of science curricula; integrated systems approach to instruction; activities based on analysis, synthesis, and authentic application of scientific concepts and principles; and site-based experiences. Prereq: EDCI 507, 508. Restr: Teaching certification required.

528. ELEMENTARY SCHOOL CURRICULUM. (3, 0, 3). Classroom and field based study of processes in the development and evaluation of elementary curriculum. Pre or coreq: EDCI 521. Restr: Elementary teaching certification required.

529. CURRICULUM IN SECONDARY SCHOOL. (3, 0, 3). Classroom and field based study of processes in the development and evaluation of secondary curriculum. Restr: Teaching certification required.

530. ADVANCED TEACHING STRATEGIES. (3, 0, 3). Meaning-making and differentiation strategies across content areas. Restr: Teaching certification required.

531. ADVANCED PROFESSIONAL STRATEGIES. (3, 0, 3). Leadership, collaboration, mentorship, and advocacy for responsive professionals. Restr: Teaching certification required.

533. NATIONAL BOARD CERTIFICATION CANDIDATE SUPPORT I. (3, 0, 3). Supports preparation of NBPTS Entry IV and development of additional certification entries. Restr: Teaching certification required.

534. NATIONAL BOARD CERTIFICATION CANDIDATE SUPPORT II. (3, 0, 3). Supports preparation of videos and narratives of instruction for entries, and preparation for assessment center activities. Restr: Teaching certification required.

542. SUPERVISION OF STUDENT TEACHING. (3, 0, 3). Study of the philosophy, goals and practice of supervising student teachers.

546. DIAGNOSIS AND PRESCRIPTIVE INSTRUCTION IN ARITHMETIC. (2, 2, 3). Theory, techniques and practicum in locating learning difficulties and designing and implementing instruction in elementary mathematics. Restr: Undergraduate or graduate course in elementary mathematics methods, teaching experience.

590. APPLIED RESEARCH IN CURRICULUM AND INSTRUCTION I. (2, 0, 2). Seminar. Capstone development: research proposal to promote educational change. Restr: Completion of 27 credit hours toward the M.Ed. in Curriculum and Instruction including EDCI 507, 508, and all courses in concentration.

591. APPLIED RESEARCH IN CURRICULUM AND INSTRUCTION II. (1, 0, 1). May be repeated for up to 3 hours of credit. Seminar. Capstone analysis and completion. Presentation of research findings in symposium; archiving and/or online publishing of final products. Prereq: EDCI 590.

597-598. DIRECTED INDIVIDUAL STUDY. (1-3 ea.). Prereq: EDFL 501. Restr: Permission of department required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

EDUCATIONAL FOUNDATIONS AND LEADERSHIP (EDFL 038)

571. APPLIED STATISTICS IN EDUCATION AND PSYCHOLOGY. (3, 0, 3). Study of descriptive and inferential concepts applied to research problems in education.

589. FIELD STUDY. (3). Individualized study of a problem or action research in the curriculum major. Prereq: EDFL 571.

597-598. DIRECTED INDIVIDUAL STUDY. (1-3 ea.). Prereq: EDFL 501. Restr: Permission of department required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

EDUCATIONAL LEADERSHIP (EDLD 116)

500. VISION, LEADERSHIP AND SCHOOL CULTURE. (3, 0, 3). Crafting, articulating, implementing, and maintaining school vision and culture.

501. USING DATA TO EFFECT CHANGE. (3, 0, 3). Collecting, analyzing, interpreting, and using data to guide school improvement.

502. LEGAL, REGULATORY, AND ETHICAL ISSUES. (3, 0, 3). Fundamental concepts of American school law and how to apply the law to real world school settings.

504. USING RESEARCH TO LEAD CHANGE. (3, 0, 3). Role of research in guiding school improvement.

505. CURRICULUM FOR EDUCATION LEADERS. (3, 0, 3). Framework for investigating issues and trends related to curriculum development.

506. ASSESSMENT AND INSTRUCTION FOR EDUCATIONAL LEADERS. (3, 0, 3). Identification of best practices in assessment and instruction and then use that information to make evaluative judgments.

507. INTERNSHIP. (3, 0, 3). Field-based leadership experience in an educational setting.

508. SYSTEMS ALIGNMENT. (3, 0, 3). Identification, analysis, and application of the various systems and processes that align a school's program with its mission and that of the school system.

509. CHANGE, TRANSITION, AND EVALUATION. (3, 0, 3). Application of techniques for effective evaluation of educational programs.

510. ORGANIZING THE LEARNING ENVIRONMENT. (3, 0, 3). Knowledge and skills necessary to secure needed resources from a variety of sources to prioritize work, and to understand the use of technology to increase student achievement and build focused and sustained staff development.

511. COMMUNITY ENGAGEMENT. (3, 0, 3). Skills to analyze and interpret various models of school-community organizational frameworks.

512. CAPSTONE INTERNSHIP. (3, 0, 3). Project that will be presented to the candidate's committee. Restr: Open only to educational leadership students in the semester of graduation.

800. INTRODUCTION TO RESEARCH DESIGN IN EDUCATIONAL LEADERSHIP. (3, 0, 3). Prepares students for the dissertation. Discusses quantitative and qualitative methodologies in applied research. Same as EDF 800 at Southeastern.

801. WRITING FOR RESEARCH IN EDUCATIONAL LEADERSHIP. (3, 0, 3). Course is designed to prepare the doctoral student for the conduct of scholarly inquiry and writing. Topics include refining writing style, avoiding plagiarism, adhering to APA style, conducting literature reviews, and critiquing. It is expected that students will have knowledge of and skills in the use of computer applications, research and statistics, and information literacy. Same as EDF 801 at Southeastern.

802. QUANTITATIVE METHODS IN EDUCATIONAL LEADERSHIP. (3, 0, 3). Introduces advanced statistical techniques commonly used in educational research, parametric and non-parametric analysis through the use of statistical analysis software. Same as EDF 802 at Southeastern.

803. QUALITATIVE METHODS IN EDUCATIONAL LEADERSHIP. (3, 0, 3). Future trends, issues and problems in academic educational systems, understanding and developing a qualitative research design, identifying problems and solutions and developing relevant theory in qualitative research. Same as EDF 803 at Southeastern.

810. LEADERSHIP THEORY AND PRACTICE. (3, 0, 3). Knowledge of past models of leadership is linked with an analysis of the complexities of contemporary schools, and the skills required to assume the role and responsibilities of the administrator in restructured school environments. Emphasis is placed on skills involving articulation of organizational mission, collegial engagement and consensus building, implementing and sustaining the change process and total quality management.

811. EDUCATIONAL MANAGEMENT. (3, 0, 3). Course is designed to examine the role of superintendents and central office directors in emerging social, economic and political contexts that are changing the nature of schooling, altering how schools are viewed, and are transforming how they lead. A broad range of issues that are critical to the success of new superintendents and issues that affect relationships and impact districts will be explored. Particular attention will be paid to issues of leadership in diverse organizations. Same as EDL 811 at Southeastern.

812. SUPERVISION IN EDUCATIONAL SETTINGS. (3, 0, 3). Course will include advanced definitions and determinations of staffing needs, supervision, and management and coordination problems. Also to be addressed are policies for recruitment, selection, assignment, salary planning, scheduling, promotion,

separation, grievances, reassignment, records, development programs, in-service training, evaluation, benefits and services. Same as EDL 812 at Southeastern.

820. LEGAL ISSUES AND ETHICS IN EDUCATIONAL ORGANIZATIONS. (3, 0, 3). Studies of federal and state constitutions, legislation, regulatory guidelines and court decisions related to the operation of educational organizations such as contractual requirements, church-state relationships, education of special needs students, student and parental rights, tort liability, ethics and morality. Same as EDL 820 at Southeastern.

821. POLITICS AND COMMUNITY RELATIONS. (3, 0, 3). Administrative factors in developing community involvement in public schools and individual communication. Uses social science theory for educational policy-making. Same as EDL 821 at Southeastern.

822. POLICY DEVELOPMENT AND ANALYSIS. Understanding the process by which educational policy is formulated, analyzed, implemented, and evaluated. Same as EDL 822 at Southeastern.

823. FIDUCIARY MANAGEMENT OF EDUCATIONAL ORGANIZATIONS. (3, 0, 3). Study of the principles of taxation, local, state and federal financing of education and equalization of educational opportunity. Special emphasis given to the complete budget making process at the district level and a detailed study of school business management at the local school level. Sound accounting procedures reviewed and additional topics will include introduction to purchasing, transportation, food service operations and other business-related tasks and functions. Same as EDL 823 at Southeastern.

830. FOUNDATIONS OF CURRICULUM THEORY AND DESIGN. (3, 0, 3). Investigation of curriculum theory with emphasis on the various approaches to curriculum design and development and other factors that impact curriculum. Same as EDL 830 at Southeastern.

831. CRITICAL ANALYSIS OF CURRENT RESEARCH ON EFFECTIVE EDUCATIONAL PRACTICE. (3, 0, 3). Course will focus on recent research on best practices of leadership for empowering teachers, creating communities of continuous learning, and increasing student achievement. The students will hone their critical thinking skills through analysis, synthesis and evaluation of research reporting. Same as EDL 831 at Southeastern.

832. EDUCATIONAL EVALUATION. (3, 0, 3). Course is designed to provide students with the research and evaluation skills required to implement various program evaluation models. It is also intended to provide the skills necessary for effectively using the standards of the National Joint Committee on Standards for Program Evaluation as required by State certification guidelines. Same EDL 832 at Southeastern.

840. CHANGE THEORY. (3, 0, 3). Emphasizing the application or organizational development practices related to educational settings, this course is designed to focus on change theory and its implementation in schools. The course is designed to assist in the understanding of change by utilizing some of the concepts of Kurt Lewin, including field theory and action research. Course topics and instruction offer an examination of the fundamental concepts of change and behavioral analysis. Same as EDL 840 at Southeastern.

841. ORGANIZATIONAL DEVELOPMENT FOR LEARNING COMMUNITIES. Theories of leadership and organizational development, and strategies for creating communities of continuous learning. Same as EDL 841 at Southeastern.

842. CULTURE, CLIMATE AND CHANGE LEADERSHIP. (3, 0, 3). Concepts needed for systemic changes in K-12 public education. Same as EDL 842 at Southeastern.

871. SPECIAL TOPICS IN INSTRUCTIONAL LEADERSHIP. (3, 0, 3). Same as EDL 871 at Southeastern.

875. SPECIAL TOPICS IN EDUCATIONAL LEADERSHIP AND MANAGEMENT. (3, 0, 3). Same as EDL 875 at Southeastern.

880. RESEARCH PRACTICUM IN EDUCATIONAL LEADERSHIP. (3, 0, 3). Data collection, analysis and interpretation to meet student-specific needs. Same as EDL 880 at Southeastern.

897. INTERNSHIP. (3, 0, 3). Same as EDL 897 at Southeastern.

900. DOCTORAL DISSERTATION SEMINAR I. (3, 0, 3). Proposal and dissertation writing. Grades S, U, W. Same as EDF 900 at Southeastern.

999. DISSERTATION RESEARCH AND DISSERTATION. (1-24). Grades S, U, W. Same as EDF 990 at Southeastern.

**WILLIAM HANSEN HALL DEPARTMENT OF
ELECTRICAL AND COMPUTER ENGINEERING (EECE 028)**

430(G). DIGITAL SIGNAL PROCESSING. (3, 0, 3). Z-Transform techniques and their real-time implementation, Digital filter design, Discrete Fourier transform techniques and their application. Prereq: EECE 444.

434(G). DATA COMMUNICATIONS. (3, 0, 3). Computer communications hardware and software, computer network considerations, switching methods, error analysis and data communication systems testing. Prereq: EECE 240 with a grade of "C" or better. Restr: Not open to students who have earned credit for EECE 413.

435(G). WIRELESS COMMUNICATIONS. (3, 0, 3). Introduction to wireless communications; cellular mobile telephony: standards, systems, technologies; wireless data networks; personal communication systems (PCS) principles. Prereq: EECE 458.

458(G). COMMUNICATIONS ENGINEERING II. (2, 3, 3). Study of the effects of random noise on modulation systems, including a detailed study of digital communication systems and an introduction to information theory and coding. Laboratory experience will include digital baseband transmissions and digital modulation. Prereq: EECE 333, EECE 452; and STAT 425(G) or ENGR 311.

461(G). CONTROL SYSTEMS I. (3, 0, 3). Transfer functions, flow-graphs, state variables for feedback control systems, stability criteria. Digital control system design. Coreq: EECE 444.

466(G). COMMUNICATIONS NETWORKS. (2, 3, 3). Fundamentals of networks including PC's, LAN's, MAN's and WAN's. Prereq: EECE 434(G) or permission of instructor required.

472(G). SPECIAL TOPICS. (1-3). Content varies. Alternate subtitles will appear on student's transcript. Restr: Permission of the instructor required.

480(G). COMPUTER AIDED ENGINEERING. (2, 3, 3). Introduction to the application of computer graphics to the evaluation of new system designs and simulation of system performance in the computer before the first prototype is built. Restr: Permission of instructor required.

481(G). INTELLIGENT ROBOTS: THE INTEGRATION OF MICROCOMPUTERS AND ROBOTIC TECHNOLOGY. (3, 3, 4). Topics include an overall view of robotics, examining current robot capabilities in the industrial environment and the use of that technology in computer aided manufacturing. Also explored are the principal robot technologies: microcomputers, sensors, and mechanical structures. Restr: Permission of instructor required.

500. DESIGN AND ANALYSIS OF ALGORITHMS. (3, 0, 3). Basic techniques used in design and analysis of algorithms, including divide-and-conquer, greedy methods, dynamic programming, search techniques, backtracking, branch-and-bound, and algebraic transformation. NP-Complete and NP-Hard problems, reductions among and approximations to such problems. Basic concepts surrounding the halting problem. Prereq: CMPS 341 or 406. Same as CMPS 500.

501. METHODOLOGY OF COMPUTER SYSTEMS DESIGN. (3, 0, 3). Systematic study of the theory, methodology and logic of design as applied to computer systems. Topics include the structure of design processes, design evolution, design languages, mathematical and experimental approaches to design, and design paradigms. Case studies from computer architecture, software systems and computer languages. Prereq: CMPS 430(G), 453(G), 455(G) or permission of instructor required.

505. ADVANCED CONTROL DESIGN IN DYNAMIC SYSTEMS. (3, 0, 3). Advanced control system design applications. Topics include: State space design techniques, stability robustness, optimal control design, robust control, and fault tolerant control design. Prereq: EECE 461(G) or MCHE 474(G) or CHEE 413(G) or equivalent basic control course.

506. SYSTEM-THEORY. (3, 0, 3). System representation via state space and frequency domain modules, state estimation and system identification. Prereq: EECE 461(G). Same as CMPS 506.

507. DIGITAL SIGNAL PROCESSING. (3, 0, 3). Discrete-time signals, systems, and transforms; sampling, interpolation, and decimation of signals; representations and design techniques of digital filters; fast algorithms for convolutions and discrete Fourier transform; architecture of filters and transforms. Restr: Permission of instructor required. Same as CMPS 507.

508. IMAGE PROCESSING. (3, 0, 3). Review of 2-D digital signal processing, fast transform algorithms, image processing techniques; image enhancement, filtering, restoration, segmentation; image modeling; data compression for image storage and transmission; image reconstruction from noisy projections; data base structure; hardware implementation; applications in communication, medical, and computer vision. Prereq: CMPS 430(G) and EECE 507. Same as CMPS 508.

509. PATTERN RECOGNITION. (3, 0, 3). Classificatory and descriptive approaches to pattern recognition and machine perception. In the former category: statistics vs. deterministic, direct vs. indirect, and parametric vs. non-parametric approaches to pattern classification. In the latter category: various techniques of scene analysis including picture segmentation, raster geometry as well as linguistic and relational approaches to picture description. Prereq: MATH 302 or equivalent. Restr: Permission of instructor required. Same as CMPS 509.

512. NETWORK SECURITY. (3, 0, 3). Conventional encryption; public-key encryption; authentication and digital signatures; key management; intruders, viruses, and worms; electronic mail security, and authentication applications.

513. PRINCIPLES OF COMPUTER COMMUNICATIONS AND NETWORKS. (3, 0, 3). Study of computer networks, including telecommunications and the related data transmission techniques. Topics include network philosophy, design and implementation. Prereq: One statistics course. Restr: Permission of instructor required. Same as CMPS 513.

514. ERROR-CONTROL CODES FOR COMPUTER SYSTEMS. (3, 0, 3). Channel models, error categories, distance metrics, code fundamentals. Algebraic structures, vector spaces, matrices, polynomial Algebras, Galois fields, codes for high-speed memories, bit and byte error codes, mass memory codes, unidirectional error codes, codes for logic circuits, self-checking circuits, self-checking checkers and processors. Same as CMPS 514.

515. PRINCIPLES OF COMPUTER GRAPHICS. (3, 0, 3). In-depth study of graphic man-machine interaction. Analysis of display devices with emphasis on interactive cathode-ray-tube terminals. Study of graphical display software techniques; display files, windowing, clipping, 2- and 3-dimensional transformations, hidden-line removal. Same as CMPS 515.

516. CRYPTOGRAPHY & DATA SECURITY. (3, 0, 3). Secrecy systems, encryptions, cryptanalysis, data encryption standard, applications of cryptography key management, public key systems and digital signatures, file security systems, IBM cryptographic products. Same as CMPS 516.

517. DIGITAL TECHNIQUES IN TELECOMMUNICATIONS. (3, 0, 3). Voice and voice-band data digitization, bandwidth and channel capacity, coder and decoders, digital speech interpolation, digital switching techniques and networks, traffic considerations, distributed system design for the transmission of speech and data on telecommunication lines. Same as CMPS 517.

518. LOSSLESS AND LOSSY DATA COMPRESSION. (3, 0, 3). Huffman and arithmetic coding, dictionary techniques, and lossless image compression. Scaler and vector quantization, differential encoding, subband and transform coding. Prereq: EECE 500. Same as CMPS 518.

520. PRINCIPLES OF ARTIFICIAL INTELLIGENCE. (3, 0, 3). In-depth study on knowledge representation, knowledge acquisition and planning. Selected topics from natural language understanding, learning, vision, and robotics. Prereq: CMPS 420(G). Same as CMPS 520.

521. AUTOMATED REASONING. (3, 0, 3). Comprehensive study of automated reasoning. Emphasis on logical, probabilistic, and non-monotonic reasoning. Prereq: CMPS 420(G) or permission of instructor required. Same as CMPS 521.

522. AUTONOMOUS-AGENT ARCHITECTURE. (3, 0, 3). Design and implementation of goal-directed autonomous agents. Includes classical, reactive and multiagent planning, and communication among autonomous agents. Prereq: EECE 520.

523. THE COMPUTATIONAL BASIS OF INTELLIGENCE. (3, 0, 3). Computational principles underlying human and machine intelligence. Neural models of vision, language, and higher-order cognition. Integration of artificial intelligence with neural computation. Prereq: CMPS 420(G) or EECE 520. Same as CMPS 523.

525. COMPUTER-CONTROL BASED ROBOTICS & AUTOMATION SYSTEMS. (3, 0, 3). Fundamental course in Computer-Control Based Robotic Systems. The course covers design of robotic systems, kinematics, dynamics, classical control of robotics, trajectory generation, robot languages, special computer architectures for robotic systems, sensors and introduction to robotic vision. Same as CMPS 525.

526. INTELLIGENT MACHINES: THEORY, DESIGN & APPLICATIONS. (3, 0, 3). Prereq: EECE 525 or permission of instructor required. Same as CMPS 526.

527-528. COGNITIVE SCIENCE I, II. (3, 0, 3 ea.). Cognitive models from behavioral, biological and computational sciences. Same as CMPS 527-528.

530. PRINCIPLES OF COMPUTER ARCHITECTURE. (3, 0, 3). Micro and parallel architectures, instruction-level parallelism, memory hierarchy, shared-memory multiprocessors, interconnection networks, and clusters. Prereq: CMPS 430(G). Restr: If prerequisite not met permission of instructor required. Same as CMPS 530.

531. PARALLEL PROCESSING ORGANIZATION. (3, 0, 3). Pipelined computer organizations; array computers; multiprocessors; parallel processing algorithms and software. Prereq: CMPS/EECE 530. Same as CMPS 531.

533. DISTRIBUTED COMPUTING SYSTEMS. (3, 0, 3). Detailed study of Architectural support for Distributed Operating Systems and Distributed Data Bases, including structural functions that must be architected to form an integrated Distributed Computer Organization that recognizes the requirements of Distributed Processing. Prereq: CMPS 513, 530, 455(G), or permission of instructor required. Same as CMPS 533.

534. MODELING AND PERFORMANCE EVALUATION OF COMPUTER SYSTEMS. (3, 0, 3). Models and methods for performance evaluation, service time distributions, scheduling algorithms, relations between distributions and scheduling, Markovian queues, queuing network models of computer systems, product-form solutions, approximate solutions, simulation of queuing networks, measurements on computer networks, case studies. Prereq: CMPS 430(G) and 455(G). Same as CMPS 534.

535. INTRODUCTION TO DATA PARALLEL ALGORITHMS AND ARCHITECTURES. (3, 0, 3). Theory of systolic algorithms and architectures: (a) models of systolic computation, performance measures and theoretical bounds, (b) processors and interconnection networks: arrays, trees, hypercubes, mesh of trees, shuffle-exchange and butterfly, (c) algorithms for sorting, searching, Fourier transforms, convolution, matrix computations and graph theory problems, (d) routing and graph embedding in massively parallel systems, scheduling and load balancing, and (e) advanced topics: retiming, universal networks, PRAMS, DRAMS, and other new machine models. Prereq: CMPS/EECE 430 (G), 500. Same as CMPS 535.

540. PRINCIPLES OF THE THEORY OF COMPUTATION. (3, 0, 3). Classes of computable functions and recursion theory. Unsolvable and intractable problems. Deterministic and nondeterministic polynomial bounds on complexity; NP-completeness. Abstract complexity theory. Prereq: CMPS 440(G) and EECE 500 or consent of instructor. Same as CMPS 540.

541. AUTOMATA THEORY. (3, 0, 3). Study of finite-state automata, their structure, decomposition and homomorphisms. Prereq: CMPS 440(G) or permission of instructor required. Same as CMPS 541.

542. MODELING OF INDUSTRIAL SYSTEMS. (3, 0, 3). Principles and techniques for obtaining differential equations that describe electrical, mechanical and chemical systems. Emphasis is on matrix formulations derived from the laws of motion and reaction kinetics, including Lagrangian dynamics. Prereq: EECE 461(G), MATH 350.

546. SEMINAR. (0, 3, 1). Searching the literature and vendor data for design information about digital system components. Students will assemble and report on their equipment data file. Restr: Permission of instructor required.

551. PRINCIPLES OF COMPILER DESIGN. (3, 0, 3). Detailed analysis of compiler construction. Topics to be covered include a study of techniques for semantic and syntactic analysis, parsers, scanners, organization and allocation of storage areas, and compiler compilers. Prereq: CMPS 451(G). Same as CMPS 551.

555. PRINCIPLES OF OPERATING SYSTEMS THEORY. (3, 0, 3). Parallel processing: communication and synchronization of processes in multiprocessing and distributed environments, proof of correctness. Deterministic scheduling. Introduction to queuing theory. Current research topics. Prereq: CMPS 455(G). Same as CMPS 555.

556. SOFTWARE REQUIREMENTS AND SPECIFICATIONS. (3, 0, 3). Study of front-end software life cycle techniques and tools. Topics include requirements formulation, requirements analysis, specification languages, logical completeness, internal consistency, executable specifications, and automatic code generation systems. Prereq: CMPS 553. Same as CMPS 556.

557. SOFTWARE TESTING AND VERIFICATION. (3, 0, 3). Study of techniques and tools that are used in the testing and verification of reliable software. Topics include debugging, technical reviews, static analysis, dynamic analysis, test coverage, formal verification techniques, symbolic execution, and automatic test data generation. Prereq: CMPS 553. Same as CMPS 557.

561. INFORMATION STORAGE AND RETRIEVAL. (3, 0, 3). Fundamental principles of information storage and retrieval as related to textual data: file design; query languages, including natural language processing; analysis of information content by statistical, syntactic, and semantic methods; vocabulary control; indexing; system monitoring and performance evaluation. Comparative analysis of existing operational information storage and retrieval systems. Prereq: CMPS 460(G) or permission of instructor required. Same as CMPS 561.

562. PRINCIPLES OF DATABASE MANAGEMENT SYSTEMS. (3, 0, 3). Formal development of the major components of a database management system. Topics include query languages, dependencies and normalization, query optimization, and distributed database management systems. Prereq: CMPS 460(G) or permission of instructor required. Same as CMPS 562.

566. DATA MINING. (3, 0, 3). Model representation, evaluation, and search methods in data mining; knowledge discovery; classification and clustering, trend and deviation analysis, dependency derivation; integrated discovery systems, augmented database systems, and applications. Prereq: CMPS 460G. Restr: Permission of instructor required. Same as CMPS 566.

570. COMPUTATIONAL ASPECTS OF VLSI. (3, 0, 3). Computational model of VLSI systems, systolic algorithms, VLSI design tools, silicon compiler, and VLSI placement and ranking algorithms. Prereq: CMPS 500.

571. SILICON COMPILATION. (3, 0, 3). Hardware, software and architectural considerations. Simulation of digital systems. Algorithms for realizing systems in silicon. Testing and reliable design. Prereq: CMPS/EECE 500 and 540 or permission of instructor required. Same as CMPS 571.

572. COMBINATORICS AND GEOMETRIC ALGORITHMS. (3, 0, 3). Introductory course about the nature of combinatorial mathematics and the application techniques of this area of mathematics to the optimization problems in CMPS and EECE. Two major areas will be studied in this course, counting techniques and graph theory. The counting techniques will cover permutation, combination, pigeonhole principle, inclusion-exclusion principle, recurrence relation, generating function, Polya's theorem, combinatorial design, and binomial coefficient. The graph theory will cover basic properties of finite and hyper graphs, graph coloring, Eulerian chains and cycles, Hamiltonian chains and cycles, trees, directed graphs, chromatic number, connectivity, 5-color theorem, and Euler's formula for planar graphs. Prereq: CMPS 341 or permission of instructor required. Same as CMPS 572.

573. ANALOG VLSI DESIGN. (3, 0, 3). Design circuits for neural networks applications, current mirrors, differential amplifiers, weighted multipliers, operational amplifiers, and neuron cell design for brain-like computers; implementation in VLSI circuits using current CMOS, BiCMOS technology. Prereq: EECE 353 and 585. Same as CMPS 573.

581. LOGIC DESIGN AND SWITCHING THEORY. (3, 0, 3). Design of synchronous and asynchronous sequential circuits, state assignment and minimization techniques, fault diagnosis in switching circuits. Prereq: EECE 341 or equivalent. Same as CMPS 581.

582. COMPUTER ARITHMETIC. (3, 0, 3). Course covers the topics of computer number systems, number system structures, arithmetic operation, algorithms, implementation logic, high speed arithmetic, arithmetic unit design and fault tolerance of arithmetic logic units. Prereq: EECE 530 or permission of instructor required. Same as CMPS 582.

583. COMPUTER DESIGN AND IMPLEMENTATION. (3, 0, 3). Design and methodology, processor design, control design, bit-slice design, and memory organization. Prereq: EECE 439 or equivalent. Same as CMPS 583.

584. FAULT DIAGNOSIS OF DIGITAL SYSTEMS. (3, 0, 3). Logic model for faults, fault detection in combinational and sequential circuits, fault diagnosis design for testability, built-in testing. Prereq: EECE 581 or permission of instructor required. Same as CMPS 584.

585. VLSI DESIGN. (3, 0, 3). VLSI design methods, automation, design using PLA's, microprogrammed control design, impact of VLSI technology on computer architectures. Prereq: CMPS 430(G) or permission of instructor required. Same as CMPS 585.

586. VLSI ARCHITECTURE. (3, 0, 3). Overview of VLSI design issues. Datapath and control design; systolic arrays; multiprocessor layouts; wafer scale integration. Discussion on various ongoing projects such as RISC, CHIP, etc. Prereq: CMPS/EECE 585. Same as CMPS 586.

587. VLSI FABRICATION PRINCIPLES. (3, 0, 3). Principles of planar technology, fabrication of silicon and GaAs circuits and devices, CMOS, BiCMOS, yield and wafer scale integration, packaging for high speed technologies, multi-chip modular (MCM) technology. Same as CMPS 587.

588. NEURAL NETWORKS. (3, 0, 3). Study of computation methods by artificial neural networks and their applications. Topics include the basic definitions and geometrical concepts; learning laws; associative networks; network architectures and description languages; applications in control, signal and image processing, and data analysis. Prereq: CMPS 430(G). Same as CMPS 588.

589. INTRODUCTION TO FUZZY LOGIC SYSTEMS. (3, 0, 3). Study of fuzzy set theory and applications. Topics include (a) mathematical foundations of fuzzy logic, (b) relationship to classical probability, (c) applications in control engineering, robotics, decision analysis, pattern recognition, approximate reasoning, etc., (d) use of empirical and neural network techniques in designing fuzzy systems, and (e) implementation architectures. Same as CMPS 589.

590. SPECIAL PROJECT. (1-6). Restr: Permission of department head required.

591. SCHOLARLY PAPER. (1-3). Restr: Permission of department head required.

595. GRADUATE SEMINAR. (1, 0, 1). Presentation of current research topics and results. Course must be taken during each semester student is enrolled in computer engineering. Restr: May not be applied towards any graduate degree.

598. SPECIAL TOPICS. (3, 0, 3). Content varies. Alternate subtitles will appear on students' transcripts. Restr: Permission of instructor required. Same as CMPS 598.

599. THESIS RESEARCH AND THESIS. (1-9). Grades S, U, W.

608. THEORY AND PARADIGMS IN MACHINE VISION. (3, 0, 3). Extraction and description of image features; interpretation of line drawings; shape from shading in monocular images; advanced color vision techniques; image sequence analysis; stereoscopic vision; sensing and processing of range images; advanced segmentation techniques; model-based vision; object recognition and localization; highlights on 3-D vision applications. Same as CMPS 608.

609. ADVANCED TOPICS IN MACHINE VISION. (3, 0, 3). Provides the basis for conducting research in Intelligent Machine Vision Systems. Same as CMPS 609.

613. ADVANCED TOPICS IN COMPUTER COMMUNICATIONS. (3, 0, 3). Advanced topics in the fields of communications and networks selected from literature. Prereq: CMPS 513 or permission of instructor required. Same as CMPS 613.

614. FAULT-TOLERANT COMPUTING. (3, 0, 3). Design of fault-tolerant multiprocessors and VLSI-based system structures, system-level fault diagnosis, fault-tolerant software, functional testing and reliability evaluation. Prereq: CMPS 530 or permission of instructor required. Same as CMPS 614.

619. ADVANCED TOPICS IN COMPUTER SCIENCE. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Restr: Permission of instructor required. Same as CMPS 619.

629. ADVANCED TOPICS IN ARTIFICIAL INTELLIGENCE. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Study of research topics in Artificial Intelligence. Prereq: CMPS 512 or 521 or permission of instructor required. Same as CMPS 629.

631. ADVANCED PARALLEL PROCESSING. (3, 0, 3). Continuation of CMPS 531. Advanced current topics in parallel system architecture: processors, interconnection networks, memory system, and software tools. Prereq: CMPS 531. Same as CMPS 631.

639. ADVANCED TOPICS IN COMPUTER ARCHITECTURE. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Prereq: CMPS 530. Restr: Permission of instructor required. Same as CMPS 639.

641. ADVANCED AUTOMATA THEORY. (3, 0, 3). Advanced topics in automata theory selected from the literature. Prereq: CMPS 541 or permission of instructor required. Same as CMPS 641.

642. ADVANCED FORMAL LANGUAGES. (3, 0, 3). Advanced topics in formal languages selected from the literature. Prereq: CMPS 542 or permission of instructor required. Same as CMPS 642.

645. MODELS OF SOFTWARE INFORMATION CONTENT. (3, 0, 3). Models and metrics for the conceptual complexity and information transfer of software documents. Applications to software development and testing. Prereq: CMPS 453(G), 500 and 540 or permission of the instructor required. Same as CMPS 645.

649. ADVANCED TOPICS IN THE THEORY OF COMPUTATION. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Prereq: CMPS 540. Restr: Permission of instructor required. Same as CMPS 649.

650. LANGUAGE PROCESSING FOR DISTRIBUTED SYSTEMS. (3, 0, 3). Study of the principles involved in programming distributed computer systems. Prereq: CMPS 550 and 555, or permission of instructor required. Same as CMPS 650.

653. ADVANCED SOFTWARE METHODOLOGY. (3, 0, 3). In-depth study of the issues related to advanced software methods that are applied over the range of events in the software life cycle. The pragmatic aspects of this course include a software project. Future impact of software methodologies and standards are addressed as applied to various application domains. Prereq: CMPS 553 or permission of instructor required. Same as CMPS 653.

655. ADVANCED OPERATING SYSTEMS. (3, 0, 3). Study of advanced topics in operating systems. Prereq: CMPS 555 or permission of instructor required. Same as CMPS 655.

659. ADVANCED TOPICS IN COMPUTER SOFTWARE SYSTEMS. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Prereq: CMPS 550. Restr: Permission of instructor required. Same as CMPS 659.

661. DATABASE THEORY. (3, 0, 3). In-depth treatment of the theoretical foundations of database management systems. Prereq: CMPS/EECE 562 with a minimum grade of "B" or permission of instructor required. Same as CMPS 661.

662. INFORMATION SYSTEMS FOR MINICOMPUTERS AND NETWORKS. (3, 0, 3). Emerging research, design and implementation efforts in information systems for minicomputers, microcomputers and distributed computer networks. Focus on integrating concepts and technology from database management systems, computer systems organization, operating system design, user/system interfaces, and communications into future systems. Prereq: EECE 530 and 565 or permission of instructor required. Same as CMPS 662.

669. ADVANCED TOPICS IN COMPUTER INFORMATION SYSTEMS. (3, 0, 3). May be repeated for credit as topics vary. Study of advanced topics in computer-based information systems. Restr: Permission of instructor required. Same as CMPS 669.

679. ADVANCED TOPICS IN CAD/CAM. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Prereq: CMPS 570. Restr: Permission of instructor required. Same as CMPS 679.

689. ADVANCED TOPICS IN HARDWARE DESIGN. (3, 0, 3). Content varies. May be repeated for credit as topics vary. Restr: Permission of instructor required. Same as CMPS 689.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

ENGINEERING MANAGEMENT (EMGT 033)

500. COMPUTER APPLICATIONS. (3, 0, 3). Survey of modern computer applications in engineering management such as decision support systems, networks and the Internet, electronic data interchange, data management, spreadsheets, report and program development tools, and software systems for case problems.

502. PROJECT ECONOMICS. (3, 0, 3). Procedures for conducting economic analyses used by technical managers. Fundamental methods followed by more advanced topics such as capital budgeting, leveraged investments, decisions under risk and uncertainty, and use of modern software systems.

509. INDUSTRIAL OPERATIONS. (3, 0, 3). Application of principles of engineering management to industrial operations. Includes topics such as capacity planning, production system design, demand forecasting, aggregate planning, inventory management, scheduling systems, and performance controls.

510. APPLIED KNOWLEDGE SYSTEMS. (3, 0, 3). Survey of knowledge engineering with emphasis on the use of expert systems and artificial intelligence to solve problems in manufacturing and logistical systems.

519. MODELS OF INDUSTRIAL OPERATIONS. (3, 0, 3). Quantitative and computer-based models. Applications to cost reduction and productivity improvement.

520. FORECASTING. (3, 0, 3). Survey of forecasting procedures useful for planning and budgeting functions. Includes topics such as moving averages and regression, smoothing, decomposition, feedback and adaptive control methods, ARIMA, and qualitative procedures.

525. ENGINEERING SYSTEMS SIMULATION. (3, 0, 3). Use of computer models to improve engineering and management processes that cannot be expressed analytically using deterministic or probabilistic models. Applicable to a wide range of commonly occurring problems for both manufacturing and service organizations.

530. LEGAL ASPECTS OF ENGINEERING MANAGEMENT. (3, 0, 3). Survey of legal aspects of topics relevant to engineering managers, such as design and product liability, labor law, insurance, and project management.

550. ENGINEERING AND TECHNOLOGY MANAGEMENT. (3, 0, 3). Management principles and practices applicable to technical organizations.

570. MANAGEMENT OF CAD/CAM AND CIM. (3, 0, 3). Understanding, implementing and managing CAD/CAM and CIM technologies in the industrial environment.

594. RESEARCH. (3-6). Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Restr: To be taken by non-thesis option master's students only. Grades: S, U, W.

595. SPECIAL TOPICS. (3, 0, 3).

597-598. DIRECTED INDIVIDUAL STUDY. (3 ea.).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

ENGLISH (ENGL 030)

402(G). SURVEY OF OLD ENGLISH LITERATURE. (3, 0, 3). Major prose and poetic works in translation, from the beginnings to 1100.

403(G). ENGLISH NOVEL I. (3, 0, 3). Development of the novel from the beginnings through Jane Austen. Critical reading of selected works.

404(G). ENGLISH NOVEL II. (3, 0, 3). Development of the novel from 1820 to WWI. Critical reading of selected works.

405(G). HISTORY OF THE ENGLISH LANGUAGE. (3, 0, 3). Precursors of Old English to modern period.

406(G). SURVEY OF RESTORATION AND EIGHTEENTH CENTURY BRITISH LITERATURE. (3, 0, 3). Evolution of English prose, drama, and poetry.

408(G). ADVANCED CREATIVE WRITING WORKSHOP. (3, 0, 3). Content varies. Poetry or drama. May be repeated for credit. Theory and practice of writing for publication; critical examination of student works. Restr: Permission of instructor and ENGL 326 or 327 required.

409(G). FORM IN CREATIVE WRITING. (3, 0, 3). Content varies. May be repeated for credit. Topics explore the theory of creative expression in poetry, drama, fiction, non-fiction, mixed-genre, or other verbal art. Open to non-creative writing students.

410(G). HISTORY OF LITERARY CRITICISM. (3, 0, 3). Literary criticism from the earliest period to the present.

411(G). ENGLISH LITERATURE OF THE SIXTEENTH CENTURY. (3, 0, 3). Non-dramatic literature of the English Renaissance from 1500 to 1600.

412(G). ELIZABETHAN AND JACOBEAN DRAMA. (3, 0, 3). Non-Shakespearean drama of the English Renaissance, to the closing of the public playhouses in 1642.

413(G). CHAUCER. (3, 0, 3). Chaucer's major works, especially The Canterbury Tales and Troilus and Criseyde, with some attention to reading in Middle English.

414(G). MILTON. (3, 0, 3). Exploration of Milton's thought and art, including a reading of the important minor poems, selected prose, and all of Paradise Lost, Paradise Regained and Samson Agonistes.

415(G). MAJOR WRITERS IN RESTORATION AND EIGHTEENTH CENTURY BRITISH LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Literary works of important British poets, playwrights, and prose writers.

416(G). RESTORATION AND EIGHTEENTH CENTURY LITERATURE AND CULTURE. (3, 0, 3). Content varies. May be repeated for credit. Selected poems, plays, and prose works of the period studied in the context of non-literary culture (arts, politics, colonialism, economics, institutions, manners, etc.).

417(G). SURVEY OF MEDIEVAL ENGLISH LITERATURE. (3, 0, 3). Examination of the major genres and themes in English literature from 1100 to 1500, exclusive of Chaucer.

420(G). ISSUES IN NINETEENTH CENTURY LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. An examination of various issues, themes, and/or genres in British literature of the nineteenth century.

423(G). SHAKESPEARE: THE EARLY PLAYS. (3, 0, 3). Critical reading of the dramatic works of Shakespeare to about 1600. ENGL 423 and 424 recommended for English majors in lieu of ENGL 312.

424(G). SHAKESPEARE: THE LATER PLAYS. (3, 0, 3). Critical reading of the later dramatic works of Shakespeare with emphasis on the tragedies.

425(G). SEMANTICS. (3, 0, 3). Examines how meaning is expressed in language.

426(G). ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY. (3, 0, 3). Survey of the non-dramatic literature of the English Renaissance from 1600 to the Restoration.

427(G). THE BRITISH ROMANTIC ERA. (3, 0, 3). Survey of the literature of the Romantic Era in Britain. Readings in poetry, prose, fiction, and drama in relation to the historical, political and cultural issues of the day.

428(G). THE VICTORIAN ERA. (3, 0, 3). Survey of literature of the Victorian Era in Britain; readings in poetry, prose, fiction, and drama in relation to the historical, political and cultural issues of the day.

429(G). AMERICAN RENAISSANCE. (3, 0, 3). Studies in the rise of a distinctively American literature and aesthetic, with emphasis on the period between 1835 and 1865.

430(G). SOUTHERN LITERATURE. (3, 0, 3). From colonial times to the present. Emphasis on intellectual trends and literary groups peculiar to the South.

432(G). AMERICAN FOLKLORE. (3, 0, 3). Includes field work.

433(G). APPROACHES TO AFRICAN AMERICAN LITERATURE. (3, 0, 3). Critical approaches to various topics, e.g., the Harlem Renaissance, Black feminism, Black Arts Aesthetics. Includes works in various genres (poetry, fiction, drama, theory, etc.).

435(G). AMERICAN REALISM AND NATURALISM. (3, 0, 3). Theory and practice of American literary realism and naturalism in the U.S., especially between the Civil War and World War I.

437(G). EARLY AMERICAN LITERATURE. (3, 0, 3). Survey of American literature from its beginnings to the American Renaissance, with an emphasis on major figures and intellectual and cultural movements.

440(G). FOLKLORE AND LITERATURE. (3, 0, 3). Interrelationships between folklore and written literature.

441(G). RESTORATION AND EIGHTEENTH CENTURY DRAMA. (3, 0, 3). Survey of major English playwrights from 1660 to 1780. Attention to Etherege, Wycherley, Dryden, Congreve, Lillo, Fielding, Gay, Goldsmith, and Sheridan.

442(G). MODERN AMERICAN DRAMA. (3, 0, 3). Survey of American theater in the 20th and 21st centuries.

443(G). ISSUES IN MODERN POETRY. (3, 0, 3). Content varies. May be repeated for credit. Exploration of various issues and themes in the poetry of the twentieth and twenty-first centuries.

444(G). MOVEMENTS IN MODERN POETRY. (3, 0, 3). Content varies. May be repeated for credit. Various movements and schools of poetry in the twentieth and twenty-first centuries.

445(G). MODERN AMERICAN FICTION. (3, 0, 3). Content varies. May be repeated for credit. Explores fiction composed in the Americas of the twentieth and twenty-first centuries.

446(G). FICTION WORKSHOP. (3, 0, 3). Theory and practice of writing for publication; critical examination of student works. For advanced students of demonstrated ability. Restr: 20-30 pp. fiction manuscript submitted by July 1 and permission of instructor required.

449(G). LOUISIANA FOLKLORE FIELDWORK. (2, 6, 3). Consist of intensive fieldwork in a designated area of folklore. Classes will meet once a week for lectures and archiving, twice a week in the field. Students wishing to work in French should substitute French 449(G). Prereq: FREN 340, ENGL 332, 432(G) or permission of the instructor required.

450(G). HISTORY OF CHILDREN'S LITERATURE. (3, 0, 3). Critical analysis of historically significant children's literature, primarily British and American, from its beginnings in the eighteenth century to the present.

452(G). LANGUAGE, CULTURE AND SOCIETY. (3, 0, 3). Dialect variations in languages due to race, social group, sex, region, etc., as well as the predominant attitudes associated with such variety and the social, economic, political, and educational implications of these attitudes.

455(G). TOPICS IN LINGUISTICS. (3, 0, 3). Content varies. May be repeated for credit twice.

456(G). APPROACHES TO LITERATURE. (3, 0, 3). Survey of critical approaches to poetry, fiction, and drama, including the formalistic, psychological, mythological, and archetypal approaches, as well as traditional approaches. Designed primarily for English Education majors and secondary school teachers.

457(G). CLASSICAL RHETORIC. (3, 0, 3). Survey of the theories and pedagogies of classical rhetoric in ancient Greece and Rome and their influences on modern theories and practices.

458(G). INVESTIGATING TEXT AND TALK. (3, 0, 3). Application of linguistic principles to analysis of texts and verbal interaction.

459(G). LITERARY THEORY AND PRACTICAL CRITICISM. (3, 0, 3). Examination of major theoretical stances toward literature and associated problems; analysis of literary texts in accordance with such stances.

460(G). THEMES AND ISSUES IN CHILDREN'S LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Critical examination of themes and issues in children's literature, primarily British and American.

462(G). SPECIAL PROJECTS IN TECHNICAL WRITING. (3, 0, 3). May be repeated for credit up to 9 hours. Prereq: ENGL 365. Restr: Permission of instructor required.

463(G). TECHNICAL WRITING PRACTICUM. (3, 0, 3). May be repeated for credit up to 9 hours. Industry, agency, or university internship. Prereq: ENGL 365 or equivalent experience. Restr: Permission of instructor required.

464(G). SPECIAL TOPICS IN RHETORIC AND COMPOSITION. (3, 0, 3). Content varies. May be repeated for credit. Criticism, pedagogy, technical and professional writing, rhetorical history.

466(G). IRISH LITERATURE AND CULTURE. (3, 0, 3). Content varies. Studies in Irish literature produced mainly in the twentieth century. Attention to the social, cultural, and historical milieu within which the work was produced.

467(G). MODERN BRITISH LITERATURE AND CULTURE. (3, 0, 3). Survey of British literature written mainly in the twentieth century in multiple genres.

470(G). GENRES IN CHILDREN'S LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Critical study of various genres in children's literature, primarily British and American.

475(G). RHETORIC OF FILM. (3, 0, 3). Study of filmic communication, including introduction to representative critics and critical systems; based on viewings of selected films.

476(G). NON-FICTION WORKSHOP. (3, 0, 3). Theory and practice of writing literary non-fiction for publication in such areas as travel and nature writing, cultural analysis, and literary journalism. Critical examination of models of noted prose writers from Thucydides to Annie Dillard.

482(G). FOLKLORE GENRES. (3, 0, 3). Survey of the forms of folklore and the techniques, tools, and skills used to study them.

484(G). FEMINIST LITERARY CRITICISM. (3, 0, 3). Survey of the history of and current developments in the field in relation to major theoretical movements, including psychoanalysis, postmodernism, deconstruction, Marxism.

496(G). MAJOR LITERARY FIGURES. (3, 0, 3). Content varies. May be repeated for credit when topic changes. Focus on the work of not more than three major literary figures.

497(G)-498(G). SPECIAL PROJECTS I, II. (3 ea.). Individual research or writing projects in fields students wish to study intensively.

499(G). SPECIAL TOPICS IN ENGLISH. (I-6). Content varies. May be repeated for credit. Topics offered by special arrangement with the department head. Restr: Permission of the instructor required.

500. PROFESSIONAL COLLOQUIUM. (0). Required of all beginning graduate students to aid them in understanding the university community. Includes the teaching environment, the evaluation of instruction, scholarship, and bibliography.

501. TEACHING COLLEGE ENGLISH. (3, 1, 3). Professional practices, ethics, and teaching techniques at the college level. Includes supervised teaching and observation.

502. OLD ENGLISH GRAMMAR AND READINGS. (3, 0, 3). Stress on grammar with readings in prose and poetry, exclusive of Beowulf.

503. BEOWULF. (3, 0, 3). Translation and close critical analysis of the Old English epic with some attention to the historical and linguistic setting.

505. MEDIEVAL STUDIES. (3, 0, 3). Content varies. Studies in specific themes and genres of medieval English and European literature.

506. PRINCIPLES OF LINGUISTICS. (3, 0, 3). In-depth introduction to the principles of linguistics, including phonology, morphology, syntax, semantics, and pragmatics.

509. COLLEGE ENGLISH PRACTICUM. (1, 4, 3). Pedagogical techniques and supervised teaching at the college level.

510. PROBLEMS IN THE DRAMA: SHAKESPEARE AND CONTEMPORARIES. (3, 0, 3). Special problems in varying aspects of English drama from 1540 to 1660, inclusive of Shakespeare.

511. PROBLEMS IN THE DRAMA EXCLUSIVE OF THE RENAISSANCE. (3, 0, 3). Content varies each time course is offered. Special problems in the drama of Western Civilization.

513. STUDIES IN CHAUCER. (3, 0, 3). Works of Chaucer and relevant critical problems.

515. SIXTEENTH CENTURY STUDIES. (3, 0, 3). Content varies. Non-dramatic literature of the sixteenth century.

520. SEVENTEENTH CENTURY STUDIES. (3, 0, 3). Content varies. Seventeenth century English literature exclusive of the drama.

525. EIGHTEENTH CENTURY STUDIES. (3, 0, 3). Content varies. Literature of the English Neoclassic Age.

530. NINETEENTH CENTURY STUDIES. (3, 0, 3). Content varies. Alternate emphasis on major English poets and prose writers.

531. FOLKLORE IN CULTURE. (3, 0, 3). How folklore functions within and between groups and how folklore has affected civilization.

532. FESTIVALS AND CELEBRATIONS. (3, 0, 3). Study of the folklore of social events and how that folklore relates to the occasion, group, and function.

533. STUDIES IN ETHNIC LITERATURE. (3, 0, 3). Contents varies. May be repeated for credit. Topics in ethnic and multicultural literature, criticism, and theory (including African American, Native American, U.S. Latino, Asian American).

540. TWENTIETH CENTURY STUDIES. (3, 0, 3). Content varies. English prose or poetry.

549. STUDIES IN EARLY AMERICAN LITERATURE. (3, 0, 3). Contents varies. May be repeated. Topics in American Literature from its beginnings to the American Renaissance.

550. STUDIES IN NINETEENTH CENTURY AMERICAN LITERATURE. (3, 0, 3). Content varies.

551. STUDIES IN TWENTIETH CENTURY AMERICAN LITERATURE. (3, 0, 3). Content varies.

553. SEMINAR IN LINGUISTICS. (3, 0, 3). Content varies. May be repeated for credit. Topics in language study.

555. MODERN COMPOSITION THEORY. (3, 0, 3). Study of the development of rhetorical theories in the twentieth century, focusing on the relevance of rhetoric in the modern era.

556. SEMINAR IN RHETORIC. (3, 0, 3). Contents varies. May be repeated for credit. Topics in rhetoric on history, theory, critical analysis, or research.

558. SEMINAR IN WOMEN'S STUDIES AND FEMINIST THEORY. (3, 0, 3) Content varies. May be repeated for credit twice. Topics in feminist literary study, criticism, and theory.

560. SEMINAR IN LITERARY THEORY. (3, 0, 3). Content varies. May be repeated for credit. In-depth analysis of problems in specific areas of literary theory.

580. ADVANCED CREATIVE WRITING WORKSHOP. (3, 0, 3). May be repeated for credit. Theory and practice of writing for publication/production. Variable focus on fiction, poetry, or drama. For students with considerable writing experience. Restr: Permission of instructor required.

592. WRITING PRACTICUM. (1-3). Experiential learning; working with Writing-Across-the-Curriculum issues, including evaluating, designing Writing Emphasis and Writing Intensive courses, editing a newsletter, and screening proposals from all disciplines.

595. SPECIAL PROJECT. (1-6). Readings/research project in areas other than that of the student's thesis or dissertation. Restr: Permission of department head required.

596. RESEARCH METHODS. (3, 0, 3). Basic bibliographic research and problems.

597-598. DIRECTED INDIVIDUAL STUDY. (3 ea.).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

632. SEMINAR IN FOLKLORE. (3, 0, 3). Varying topics in folklore; regional, ethnic, historical, or literary surveys.

660. SPECIAL TOPICS IN CRITICISM. (3, 0, 3). Content varies. May be repeated for credit. Studies of individual critics, critical schools, and/or theories.

675. SPECIAL TOPICS IN LITERATURE AND COMMUNICATION. (3, 0, 3). Contents varies. May be repeated for credit. Study of special topics in literature, film, and/or allied communication media.

680. SPECIAL TOPICS IN ADVANCED POETICS. (3, 0, 3). Content varies. May be repeated for credit. Explorations of psychological, sociological, semiotic, political, anthropological, linguistic, and other perspectives on creative expression in verbal arts.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL 029)

400(G). APPLIED LINGUISTICS FOR ESOL TEACHERS. (3, 0, 3). Contrastive approach to the study of the sound patterns and grammatical systems of American English.

501. PSYCHOLINGUISTICS FOR ESOL TEACHERS. (3, 0, 3). Study of the relationship of language acquisition to social and cognitive development.

506. MATERIALS DEVELOPMENT AND CURRICULUM DESIGN FOR ESOL. (3, 0, 3). Adapting curricula for the multi-ethnic classroom, and a review of ESOL materials (elementary, secondary and adult levels).

FINANCE (FNAN 032)

405(G). INVESTMENTS. (3, 0, 3). Principles and theories for selection of investment media. Analysis of securities of industry, utilities, transport, and other sectors. Development of a balanced investment program. Prereq: FNAN 300.

501. FOUNDATIONS OF FINANCE. (3, 0, 3). Introduction to financial markets and the financial manager's role in the acquisition and allocation of funds.

503. MONEY AND CAPITAL MARKETS. (3, 0, 3). Market structures and operations. Determinants of supply and demand for funds; effects of monetary and fiscal policies and theories. Prereq: MBA 500.

505. SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT. (3, 0, 3). Analysis of investment objectives. Performance and desirability of alternative portfolios. Financial management policies utilizing valuation models. Prereq: MBA 500.

509. CASE PROBLEMS IN BUSINESS FINANCE. (3, 0, 3). Analysis of situations confronting financial administrators. Solutions and their consequences examined by computer assisted techniques. Prereq: MBA 500.

510. RISK MANAGEMENT AND INSURANCE. (3, 0, 3). Concepts, principles, and techniques used to manage risk. Role of insurance for individuals and businesses.

512. ADMINISTRATION OF FINANCIAL INTERMEDIARIES. (3, 0, 3). Financial management decisions and policies of non-bank financial institutions. Asset management, credit evaluation, and loan structure, impact of legal and market constraints peculiar to each type of institution. Prereq: MBA 500.

515. INTERNATIONAL TRADE AND FINANCE. (3, 0, 3). International trade and associated financial practices, policies, and restrictions. Multinational corporations, foreign investment, exchange rates, and controls. International capital movements and financial institutions. Prereq: MBA 500.

522. ADVANCED FINANCIAL MANAGEMENT AND POLICY. (3, 0, 3). Application of analytical techniques to the firm's investment, financing, and dividend decisions in keeping with the objective of maximizing shareholder wealth. Prereq: MBA 500 or equivalent required.

597. DIRECTED INDIVIDUAL STUDY. (3, 0, 3). Detailed independent graduate level study and research, under faculty direction. A prospectus and the product(s) of the study will become part of the student's file. Restr: Permission of instructor and director of program required.

FOREIGN LITERATURE (FORL 035).

433(G)-434(G). FOREIGN LITERATURES IN TRANSLATION III, IV. (3, 0, 3 each). Study of an author, literary movement or genre in English translation. No knowledge of foreign languages required.

FRENCH (FREN 034)

400(G). PHONETICS AND PHONEMICS. (3, 0, 3). French pronunciation: theory and practice. Prereq: FREN 362.

401(G). LITERARY OR LINGUISTIC STUDIES. (3, 0, 3). May be repeated for credit. Prereq: FREN 362.

421(G). CULTURE AND CIVILIZATION OF THE CONTEMPORARY FRANCOPHONE WORLD. (3, 0, 3). Emphasis upon contemporary, everyday Canada, Louisiana, and other areas of the French-speaking world. Prereq: FREN 362.

424(G). THE SOCIOCULTURAL CONTEXT OF LOUISIANA FRENCH. (3, 0, 3). Introductory survey of social, cultural, and historical issues. Prereq: FREN 362.

425(G). FRANCOPHONE ORAL TRADITION. (3, 0, 3). Includes France, Quebec, New Brunswick, Missouri, the West Indies, Africa, and especially Louisiana. Prereq: FREN 362.

431(G). NINETEENTH CENTURY STUDIES. (3, 0, 3). Content varies. May be repeated for credit. Prereq: FREN 362. Restr: Permission of department head or graduate coordinator required.

441(G). SURVEY OF TWENTIETH CENTURY FICTION. (3, 0, 3). Content varies. May be repeated for credit. Prereq: FREN 362. Restr: Permission of department head or graduate coordinator required.

449(G). LOUISIANA FOLKLORE FIELDWORK. (2, 6, 3). Intensive directed fieldwork in a designated area. Classes will meet once a week for lectures and archiving, twice a week in the field. Prereq: FREN 340 or permission of the instructor required.

455(G). FRENCH AND FRANCOPHONE FILM. (3, 0, 3). May be repeated once. History and evolution of cinema. Prereq: FREN 362. Restr: Permission of department head or graduate coordinator required.

460(G). ADVANCED COMPOSITION AND STYLISTICS. (3, 0, 3). Study and practice in exposition, description, narration, argumentation, and stylistics. Prereq: FREN 362.

465(G). INTRODUCTION TO FRENCH LINGUISTICS. (3, 0, 3). Basic concepts of linguistics, with emphasis on their application in the Francophone world. Prereq: FREN 362.

466(G). HISTORY OF THE FRENCH LANGUAGE. (3, 0, 3). Prereq: FREN 362.

481(G). TOPICS IN QUEBEC LITERATURE AND CIVILIZATION. (3, 0, 3). Content varies. May be repeated for credit. Typical coverage includes literary genres and varying aspects of Quebec Culture. Prereq: FREN 362.

483(G). ACTUALITÉ SOCIO-ECONOMIQUE DE LA FRANCE. (3, 0, 3). Study of the socio-economic structures of contemporary France as a preparation for the Diplome of the Chambre de Commerce et d'Industrie de Paris. Prereq: FREN 362.

491(G). TOPICS IN ANTILLES AND FRENCH AFRICAN LITERATURE AND CIVILIZATION. (3, 0, 3).

May be repeated for credit. Literary and cultural topics pertaining to the Antilles and French-speaking Africa. Prereq: FREN 362.

492(G). FRENCH LOUISIANA. (3, 0, 3).

Content varies. May be repeated for credit. Studies in Louisiana French and Francophone literature and culture. Prereq: FREN 362. Restr: Permission of department head or graduate coordinator required.

501. PRÉPARATION PEDAGOGIQUE. (3, 0, 3).

Practical application and supervision for foreign language teaching with emphasis on oral proficiency, testing and applied methods. Credit not applicable to degree requirements.

502. ÉTUDES LITTÉRAIRES OU LINGUISTIQUES OU CINÉMATOGRAPHIQUES. (3, 0, 3).

Content varies. May be repeated for credit. Restr: Permission of department head or graduate coordinator required.

510. LE MOYEN ÂGE. (3, 0, 3).

Content varies. May be repeated for credit. Studies in medieval French and Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

513. LA RENAISSANCE. (3, 0, 3).

Content varies. May be repeated for credit. Studies in sixteenth-century French and Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

515. LITTÉRATURE FRANÇAISE DU DIX-SEPTIÈME SIÈCLE. (3, 0, 3).

Content varies. May be repeated for credit. Studies in seventeenth-century French and Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

518. POÉSIE ET POÉTIQUE. (3, 0, 3).

Content varies. May be repeated for credit. Studies in French and Francophone poetry and poetics. Restr: Permission of department head or graduate coordinator required.

521. LE SIÈCLE DES LUMIÈRES. (3, 0, 3).

Content varies. May be repeated for credit. Studies in eighteenth-century French and Francophone literature, culture, and philosophy. Restr: Permission of department head or graduate coordinator required.

522. ÉTUDES SOCIOLINGUISTIQUES ET ETHNOLINGUISTIQUES DU MONDE FRANCOPHONE. (3, 0, 3).

Content varies. May be repeated once. Basic theoretical concepts of sociolinguistics and ethnolinguistics, emphasis on their application in the Francophone world through individual fieldwork. Restr: Permission of instructor and department head or graduate coordinator required.

532. LITTÉRATURE FRANÇAISE DU DIX-NEUVIÈME SIÈCLE. (3, 0, 3).

Content varies. May be repeated for credit. Studies in nineteenth-century French and Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

540. CRITIQUE LITTÉRAIRE. (3, 0, 3).

Introduction to literary theory through theoretical texts and their application to the study of literature. Emphasis on contemporary trends in literary interpretation.

541. ATELIER DE MÉTHODOLOGIE. (3, 0, 3).

Research methodology and bibliography preparation for graduate study in French and Francophone Studies.

542. LE VINGTIÈME SIÈCLE AVANT 1945. (3, 0, 3).

Content varies. May be repeated for credit. French literature from 1900 to 1945. Restr: Permission of department head or graduate coordinator required.

543. LE VINGTIÈME SIÈCLE DEPUIS 1945. (3, 0, 3).

Content varies. May be repeated for credit. French literature from 1945 to 1999. Restr: Permission of department head or graduate coordinator required.

546. DIALECTOLOGIE. (3, 0, 3).

Linguistic regional variations of French, such as Cajun French and Louisiana Creole, based on individual fieldwork and recordings.

557. LA FRANCE CONTEMPORAINE. (3, 0, 3). Emphases on historical, social, and economic context of current events of contemporary France.

565. LA BELGIQUE. (3, 0, 3). May be repeated for credit. Belgian Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

570. LE MAGHREB. (3, 0, 3). Study of Francophone literature produced in Morocco, Algeria, and Tunisia since the 1950s.

575. L'ACADIE. (3, 0, 3). May be repeated for credit. Acadian Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

581. LE QUÉBEC. (3, 0, 3). Content varies. May be repeated for credit. Québec Francophone literature and culture. Restr: Permission of department head or graduate coordinator required.

591. L'OCÉAN INDIEN. (3, 0, 3). Content varies. May be repeated for credit. Francophone literature and culture of Madagascar, Reunion, Mauritius, Seychelles, and Comores. Restr: Permission of department head or graduate coordinator required.

597. RECHERCHES DIRIGÉES. (3, 0, 3). Content varies. May be repeated once for credit. Individual study of selected topics by arrangement with instructor. Restr: Permission of department head or graduate coordinator required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

622. SÉMINAIRE DE LINGUISTIQUE. (3, 0, 3). Content varies. May be repeated for credit once. Advanced seminar on linguistics. Restr: Permission of department head or graduate coordinator required.

640. MOUVEMENTS ET ÉCOLES LITTÉRAIRES. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on literary movements. Restr: Permission of department head or graduate coordinator required.

655. SÉMINAIRE SUR LA FRANCOPHONIE DE L'AMÉRIQUE DU NORD. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on Francophone literature and culture in the North American context. Restr: Permission of department head or graduate coordinator required.

665. SÉMINAIRE SUR L'EUROPE FRANCOPHONE. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on Francophone Europe. Restr: Permission of department head or graduate coordinator required.

670. SÉMINAIRE SUR LE MAGHREB. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on the literature of the Maghreb. Restr: Permission of department head or graduate coordinator required.

681. SÉMINAIRE SUR LE QUÉBEC. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on Québec studies. Restr: Permission of department head or graduate coordinator required.

691. SÉMINAIRE SUR L'AFRIQUE LES ANTILLES, OU L'OCÉAN INDIEN. (3, 0, 3). Content varies. May be repeated for credit. Advanced seminar on the literature and/or culture of Africa, the Antilles, or the Indian Ocean. Restr: Permission of department head or graduate coordinator required.

699. DISSERTATION RESEARCH AND DISSERTATION. (1-24). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

GENERAL ENGINEERING (ENGR 031)

400(G). ADVANCED ENGINEERING METHODS. (3, 0, 3). Content may vary each time the course is taught. Restr: Permission of instructor required.

410(G). WAVE PHENOMENA. (3, 0, 3). Introduction to wave theory, development of wave equations and application in continuous media, acoustics, electromagnetic waves, and light. Prereq: EECE 457 or MCHE 475.

411(G). MANUFACTURING FACILITY PLANNING. (3, 0, 3). Selection of plant site, product development, overview of manufacturing processes and their economic evaluation, production charts, machine and manpower assignment, material handling and plant layout. Prereq: ITEC 345, or MCHE 473, or MGMT 382. Restr: Cannot be taken by students with credit for ITEC 446.

412(G). COMPUTER INTEGRATED MANUFACTURING TECHNOLOGY I. (3, 1, 3). Combines technologies such as CAD, CAM, CAPP, MRP II, simulation, and JIT in order to implement CIM and discuss their synergistic relationships. Prereq: ITEC 345, or MCHE 463, or MGMT 382. Restr: Cannot be taken by students with credit for ITEC 447.

501. DATA ANALYSIS FOR ENGINEERING PROJECTS. (3, 0, 3). Basic concepts of random variation in engineering projects, followed by planning experiments, then analyzing the resulting data using exploratory procedures, point and interval estimation, tests of hypothesis, regression, or analysis of variance. Use of software for analysis and presentation.

513-514. ENGINEERING ANALYSIS I, II. (3, 0, 3 ea.). Applications of modern analytical techniques in the solutions of engineering problems, development of classical and numerical solutions in the areas of thermal-fluids; soil mechanics; electrical, petroleum and chemical phenomena, and dynamics; including problems in heat transfer, transport phenomena, potential flow, hydrodynamics, flow through porous media, viscous flow, magnetic and electrical fields, and continuum mechanics. Restr: Permission of instructor required.

515. ENGINEERING SYSTEMS. (3, 0, 3). General analytical concepts used in the modeling and analysis of engineering systems. Applications of linear systems in all areas of engineering. Restr: Permission of instructor required.

517. CONTROL SYSTEMS I. (3, 0, 3). Control loop analysis and design. Laplace transform approach for continuous systems, frequency response, Z-transform approach for sampled data systems. Computer control algorithms for feedback, feed forward, cascade, and adaptive control.

518. CONTROL SYSTEMS II. (3, 0, 3). Multivariable control system analysis and design. Process modeling and simulation. Selection of controlled and manipulated variables, interaction analysis, decoupling and ratio control, model predictive control. Restr: Permission of instructor required.

520. ADVANCED MECHANICS OF MATERIALS. (3, 0, 3). Real and complementary work; real and complementary strain energy. Energy theorems based on the principle of virtual and complementary virtual works. The effect of temperature. Thin walled pressure vessels, thick walled cylinders. Rotating disks. Beams on elastic foundation. Torsion, Buckling; Rayleigh's and Vianello's methods. Prereq: ENGR 203. Restr: Permission of instructor required.

522. FINITE ELEMENT METHOD FOR ENGINEERING ANALYSIS. (3, 0, 3). Course will emphasize standard discrete systems. The definition of finite elements of an elastic continuum will be followed by generalization of the finite element concept to a wide variety of problems. Specific problems to be addressed include: plane stress, bending of thin plates; axisymmetric shells; heat conduction, and fluid flow see page. Restr: Permission of instructor required.

524. THEORY OF ELASTICITY. (3, 0, 3). Fundamental equations of elasticity in three dimensions; plane stress and plane strain; flexure and torsion of bars of various shapes. Introduction to variational, approximate, and finite element methods. Prereq: MATH 350, ENGR 203. Restr: Permission of instructor required.

525. ADVANCED ENGINEERING SYSTEMS. (3, 0, 3). Optimization theory and techniques. Theory of maxima and minima, and variational problems with bounded control variables. Computer applications to engineering systems. Prereq: ENGR 515.

527. NON-LINEAR SYSTEMS. (3, 0, 3). Study of techniques available to analyze non-linear and discontinuous feedback control systems. Phase plane. Lyapunov stability. Describing functions. Relay controllers. Prereq: ENGR 517.

530. SPECIAL TOPICS (3).

597. DIRECTED INDIVIDUAL STUDY. (3).

GEOGRAPHY (GEOG 040)

405(G)-406(G)-407(G). DIRECTED INDIVIDUAL STUDY I, II, III. (1-3 ea.). Restr: Permission of advisor and instructor required.

410(G). HISTORIC PRESERVATION PLANNING. (3, 0, 3). Urban and regional planning, community enhancement, use planning tools and techniques to further historic preservation and land use controls to further preservation efforts.

431(G). HERITAGE TOURISM. (3, 0, 3). Literature, theory, and implementation of effective programs relevant to regional economic growth and urban revitalization.

432(G). TRANSPORTATION PLANNING. (3, 0, 3). Role of transportation in comprehensive urban and regional planning and development. Origin-destination studies and trip distribution models.

433(G). HOUSING AND COMMUNITY DEVELOPMENT. (3, 0, 3). Housing policy and urban renewal/rehabilitation.

GEOLOGY (GEOL 04I)

405(G). GEOLOGY INTERNSHIP. (2-3). May be repeated for up to a total of 6 credit hours. Supervised work-study in the field of Geology. Restr: Permission of instructor and Upper Division standing in Geology required.

406(G). SCANNING ELECTRON MICROSCOPY FOR GEOLOGISTS. (1, 3, 2). Theory, specimen preparation, and SEM operation. The completion of an individual project will be required. Restr: Senior standing and permission of instructor required.

410(G). SUBSURFACE GEOLOGY. (2, 2, 3). Use of well logs and other information. Prereq: GEOL 314, 341.

411(G). SPECIAL PROBLEMS. (1-3). May be repeated for credit as topics vary. Supervised individual or group research or study of special topics.

414(G). ADVANCED SEDIMENTARY PETROLOGY. (2, 2, 3). Advanced petrology and petrography of the sedimentary rocks, particularly the clastic sediments. Restr: Permission of the instructor required.

415(G). ADVANCED STRATIGRAPHY. (3, 0, 3). Advanced stratigraphic procedure and terminology. Principles of biostratigraphy, sequence stratigraphy, basis analysis. Restr: Permission of instructor required.

419(G). SUBSURFACE MAPPING PROJECT. (0, 6, 3). Individual subsurface mapping project with industry sponsor. Map and analyze productive oil field and prepare comprehensive report, utilizing well logs and other available data. Coreq: GEOL 410(G). Restr: Permission of instructor required.

420(G). GEOPHYSICS I. (2, 3, 3). Concepts, techniques, and applications. Emphasis on utility of gravity, magnetic, electrical, electromagnetic, and seismic data in subsurface investigation. Prereq: MATH 270; PHYS 208, 216. Restr: If prerequisites not met permission of instructor required.

421(G). GEOPHYSICS II. (2, 2, 3). Modern exploration techniques. Prereq: GEOL 420(G) or permission of the instructor required.

431(G). INTRODUCTION TO GEOCHEMISTRY. (3, 0, 3). Introduction to the concepts and principles of geochemistry. Prereq: GEOL 292, CHEM 108 or permission of the instructor.

432(G). INSTRUMENTAL EXAMINATION OF EARTH MATERIALS. (2, 2, 3). Application of x-ray diffraction, x-ray fluorescence spectroscopy, scanning electron microscopy, and light microscopy to examine minerals, rocks, soils, and scale deposits.

433(G). CLAY MINERALOGY. (2, 2, 3). Classification, identification, occurrence, and properties of clays. Prereq: GEOL 339; CHEM 108, or permission of instructor.

435(G). ANALYSIS OF GEOLOGIC DATA. (2, 2, 3). Descriptive statistics, analysis of special data, nonparametric statistics, trend surface analysis, and image processing theory. Prereq: GEOL 437(G).

437(G). COMPUTER APPLICATIONS IN GEOLOGY. (2, 2, 3). Geological applications software. Includes GIS, CAD, and mapping routines. Prereq: One course in computer literacy or programming, and a statistics course. Restr: If prereq not met permission of instructor required.

440(G). OCEANOGRAPHY. (2, 2, 3). Formation of the earth's oceans and the role they play in the global geologic, climatologic, and biologic systems.

442(G). CARBONATE SEDIMENTS. (2, 2, 3). Mineralogy, petrology, deposition, diagenesis, environments, and petrophysics. Prereq: GEOL 339. Restr: If prerequisite not met permission of instructor required.

449(G). PETROLEUM GEOLOGY. (3, 0, 3). Properties of petroleum; its origin, migration, reservoirs, and geologic conditions. Prereq: GEOL 314 and GEOL 341.

450(G). LANDSCAPE EVOLUTION. (2, 2, 3). Processes and forms in surficial systems; emphasis on fluvial and coastal environments. Prereq: GEOL 314. Coreq: GEOL 292.

455(G). GEOLOGY OF THE GULF COASTAL PLAIN. (3, 0, 3). Physiography, structure, stratigraphy, and mineral resources of the Gulf Coastal Plain. Prereq: GEOL 314, 341 or permission of the instructor.

460(G). SITE ASSESSMENT AND REMEDIATION. (3, 0, 3). Assessment and remediation of contaminated water sites and other geologic situations; includes risk and hazard analysis. Prereq or coreq: GEOL 470 or permission of instructor.

470(G). GROUND WATER. (3, 0, 3). Occurrence, movement, distribution, and discussion of problems associated with supply and change in composition of ground water. Prereq: GEOL 292, 314 or permission of instructor.

491(G). MICROPALAEONTOLOGY. (2, 2, 3). Classification and morphology of important microfossils. Emphasis on paleoecology and biostratigraphy of foraminifera. Prereq: GEOL 363.

497-498(G). ADVANCED GEOLOGIC FIELD WORK. (1-3 ea.). Geology of selected regions studied by correlated readings and field observation of points of geologic interest. Restr: Senior or graduate standing and permission of instructor required.

502. ADVANCED SEDIMENTATION. (3, 0, 3). Sedimentary environments and facies, with special emphasis on fluvial, deltaic, shoreline, deepwater, and eolian clastic facies. Prereq: GEOL 339.

503. PETROLEUM GEOLOGY PRACTICUM. (6, 0, 6). Team of five students analyze industry data (seismic, petrophysical, etc.) to evaluate potential of a petroleum basin and to make recommendations. Team presents results to industry judges, competing against regional and international universities in competition sponsored by principal professional organization. Restr: Permission of instructor required.

504. EXPLORATION GEOPHYSICS. (2, 3, 3). Introduction to the techniques of exploration geophysics. Prereq: MATH 270, PHYS 208-218 or permission of the instructor required.

505. GEOTECTONICS. (3, 0, 3). Tectonic theories, with special emphasis on plate tectonics. Restr: Permission of instructor required.

506. SEISMIC STRATIGRAPHY. (3, 0, 3). Appearance of stratigraphic features on modern exploration seismic sections. Theory and real life examples integrated. Restr: Permission of instructor required.

509. ADVANCED GROUND WATER HYDROLOGY. (3, 0, 3). Discussion of case histories and examples that apply the basic principles of ground water hydrology to specific sites and problems. A summary of current thoughts, ideas, and practical applications related to hydrology. Prereq: GEOL 470(G) or permission of instructor required.

510. ADVANCED ENVIRONMENTAL GEOLOGY. (2, 3, 3). Content varies. May be repeated for credit. Application of geology to problems resulting from the increasingly intense use of the earth and its resources. Restr: Permission of instructor required.

511. SPECIAL PROBLEMS. (1-3). Content varies. May be repeated for credit.

531. ADVANCED CARBONATE SEDIMENTOLOGY. (1-4). Carbonate facies belts, some emphasis on hydrocarbon exploration. Field examples studied; up to three field trips to selected carbonate outcrop areas. Prereq: GEOL 442G.

532. GEOCHEMISTRY. (2, 3, 3). Concepts and principles of geochemistry. Course includes examination of natural samples. Prereq: GEOL 292, CHEM 108 or permission of instructor required.

535. ADVANCED TOPICS IN GEOLOGIC COMPUTING. (2, 3, 3). Image analysis, digital mapping methods, digital modeling of geologic systems, and export systems. Prereq: GEOL 435(G) and an introductory programming class.

540. ADVANCED STRUCTURAL GEOLOGY I. (3, 3, 4). Applied interpretation concepts of contractional and strike-slip terrains. Includes field work, geophysical, and remote sensing approaches.

551. GRADUATE SEMINAR. (1). Presentations by outside speakers and by geology faculty members. Outside reading and abstracts of presentations expected of students. Required of all graduate students in first possible semester. Prereq: Completion of all required undergraduate courses.

597. DIRECTED INDIVIDUAL STUDY. (1-3). May be repeated for a total of 6 hours credit.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

GERMAN (GERM 043)

Suzanne Kocher, Head; Griffin 453

405(G). NINETEENTH CENTURY DRAMA. (3, 0, 3). Prereq: GERM 360.

441(G)-442(G). TWENTIETH CENTURY LITERATURE I, II. (3, 0, 3 each). Prereq: GERM 360.

HEALTH CARE ADMINISTRATION (HCA 106)

503. HEALTH CARE INFORMATION SYSTEMS. (3, 0, 3). Information management, systems, and technology related to strategic positioning and day-to-day administrative, financial, and clinical operations of health care organizations. Prereq: Computer competency and MBA 502.

520. ORGANIZATIONAL BEHAVIOR IN HEALTH CARE. (3, 0, 3). Management theories describing human behavior applied in health care settings. Emphasis on professionalism, medical/staff relations, governance, stress, job attitudes, motivation, leadership, decision-making, communication and teamwork. Prereq: MBA 502.

550. QUALITY MANAGEMENT IN HEALTH CARE. (3, 0, 3). Emphasis on continuous quality improvement from a system perspective. Discussion of organizational transformation to a quality culture, quality care outcomes, innovation, and internal/external consumer relationships. Prereq: MBA 502.

565. HUMAN RESOURCE MANAGEMENT IN HEALTH CARE. (3, 0, 3). Personnel forecasting and planning; recruitment, selection, and training; performance evaluation; compensation; unionization; and legal obligations. Includes obligations of infection control and assistance programs for chemically dependent personnel. Prereq: MBA 502.

580. SPECIAL TOPICS. (3, 0, 3). Current issues in the administration of health care organization. Restr: Permission of MBA director required.

590. STRATEGIC MANAGEMENT IN HEALTH CARE. (3, 0, 3). Situational analysis and strategic formulation, implementation, and control in health care organizations. Specific approaches such as mergers, diversification, vertical integration, and joint ventures. All core courses must be completed or taken concurrently.

595. INTERNSHIP IN HEALTH CARE. (3, 0, 3). May be repeated for maximum of 6 hours credit. Independent graduate level study under the direction of a health practitioner at a program approved health facility. Special project based for those with health care experience or may be experience based (e.g. working specified hours per week in one or more functional areas) for those without health care experience. Restr: Permission of MBA director required.

597. DIRECTED INDIVIDUAL STUDY. (3, 0, 3). A prospectus and the product(s) of the study will become part of the student's file. Restr: Permission of instructor and MBA director required.

HEALTH EDUCATION (HLTH 045)

405(G). NUTRITION FOR FITNESS AND SPORTS. (3, 0, 3). Study of the nutritional requirement and physiological development of the sports active individual. Special emphasis on specific nutrient interactions, metabolism, proper diets, supplementation, energy, balance, body composition and electrolyte balance. Prereq: DIET 200.

410(G). WORLD HEALTH ISSUES. (3, 0, 3).

412(G). HEALTH AND SEXUALITY. (3, 0, 3). Topics specific to the physiological, emotional, and social components of human sexuality. Emphasis on the development of healthy sexuality and human wellness in contemporary society.

440(G). HEALTH PROMOTION AND PROGRAM PLANNING. (3, 0, 3). Theory, experience, and resources needed for conducting health promotion programs in community, medical, and worksite settings.

515. SPECIAL PROBLEMS. (1-3). Content varies. May be repeated twice for credit. Alternate subtitles will appear on students' transcripts.

597. INDIVIDUAL STUDY. (3). Students pursue in-depth advanced projects.

HISTORY (HIST 050)
Semester offered information is tentative

420(G). EUROPEAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

430(G). AMERICAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

440(G). LATIN AMERICAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

451(G). APPLIED PUBLIC HISTORY SEMINAR. (1-3). Content varies. May be repeated for a total of 6 hours. Systematic examination of archival administration, museum management, historical editing, oral history, historic site management and preservation, and other areas. Alternate subtitles will appear on students' transcripts.

452(G). HISTORICAL RESOURCE ADMINISTRATION AND INTERPRETATION. (3, 0, 3). Content varies. May be repeated for credit. Examines the role of historical methodology in interpreting history in public frameworks, including museums, historic preservation, archives, and communities. Alternative subtitles will appear on students' transcripts.

461(G). APPLIED PUBLIC HISTORY INTERNSHIP. (1-6). Professional on-site work experience tailored to student's career orientation. Students may be required to reside off-campus. Grading Option: CR/NC.

471(G). ISSUES AND THEMES I, II. (3, 0, 3 ea.). Examines one issue or theme to be announced each semester. Students are limited to a maximum of 6 hours credit.

497(G)-498(G). SPECIAL PROJECTS. (1-3). Individual research or writing projects. Restr: Permission of department head and instructor required.

505. RESEARCH WRITING SEMINAR. (3).

511. EUROPEAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

515. EUROPEAN HISTORY STUDIES. (3, 0, 3). Content varies. May be repeated for credit. Alternate subtitles will appear on students' transcripts.

525. AMERICAN HISTORY STUDIES. (3, 0, 3). Content varies. May be repeated for credit. Alternate subtitles will appear on students' transcripts.

535. HISTORICAL STUDIES. (3, 0, 3). Content varies. May be repeated for credit. African, Asian, or Latin American fields. Alternate subtitles will appear on students' transcripts.

545. APPLIED PUBLIC HISTORY STUDIES. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Includes use of archives and museums, application of archaeology and geography, historical editing and publishing, family and community history, material culture, and site interpretation, preservation and management. Alternate subtitles will appear on students' transcripts.

551. LATIN AMERICAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

561. AMERICAN HISTORY SEMINAR. (3, 0, 3). Content varies. May be repeated for a total of 6 hours. Alternate subtitles will appear on students' transcripts.

570. SCIENCE, TECHNOLOGY AND HUMAN AFFAIRS SEMINAR. (3, 0, 3). Content varies. Topics include the impact of telecommunications, medicine, transportation, manufacturing, and computers. Alternate subtitles will appear on students' transcripts.

590. HISTORIOGRAPHY. (3). Seminar in the philosophy and theory of historical practice. Consideration of methods, functions, and schools of historical thought.

597. DIRECTED INDIVIDUAL STUDY. (1-3). Restr: Permission of department head and instructors required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

HUMAN RESOURCES (HUMR 052)

401(G). FOOD SERVICE SYSTEMS MANAGEMENT. (3, 0, 3). Managerial and systems approach to different food service organizations, Evaluation and analysis of labor, cost control, safety/security, facilities management, and ethics. Prereq: ACCT201, MGMT 230, HRTM 308.

431(G). FAMILY ISSUES IN GERONTOLOGY. (3, 0, 3). Individual and family issues of those aged 55 and over. Additional emphasis on public policy. HUMR124. Restr: If prerequisite not met permission of instructor required.

432(G). FAMILIES IN CRISIS. (3, 0, 3). Investigation of ways in which families react to and resolve crises. Emphasis on nature of crises, impact on family functioning, and methods of prevention and adaptation. Prereq: HUMR 323. Restr: If prerequisites not met graduate standing required.

439(G). PARENT EDUCATION. (3, 0, 3). Parenting practices involving and educating parents in a program setting. Prereq: HUMR 339. Pre or Coreq: HUMR 349.

440(G). MARRIAGE, FAMILIES, AND THE LAW. (3, 0, 3). Laws and public policy related to marriage, divorce, and child protection. Prereq: HUMR 323. Restr: If prerequisite is not met graduate standing required.

449(G). ADMINISTRATION OF CHILD AND FAMILY PROGRAMS. (3, 0, 3). Resources for organizing and administering child care and family support programs. Philosophy, policy development, methods and advocacy skills. Prereq: HUMR 339, 417. Restr: If prerequisites not met graduate standing required.

501. THEORIES OF HOSPITALITY SERVICES. (3, 0, 3). Includes philosophy of services for supervisors within the industry.

506. ADVANCED TEXTILES AND CLOTHING. (2, 2, 3). Recent developments in fibers and fabrics, with emphasis on consumer problems as related to clothing and household textiles.

508. METHODS IN HUMAN RESOURCES RESEARCH. (3, 0, 3). Principles and applications of standard methods used in human resources research.

519. APPLICATIONS OF HUMAN DEVELOPMENT THEORIES. (3, 0, 3). Integration and application of human development theories to research and program development for individuals, families, and groups.

525. CONSUMER PROTECTION. (3, 0, 3). Study of laws and agencies affecting the consumer's well-being; sources of consumer information; and discussion of current consumer issues. Prereq: HUMR 450.

530. FAMILY DEVELOPMENT. (3, 0, 3). Developmental tasks of the family and individuals during each stage of the family life cycle.

550. SUPERVISION OF STUDENT TEACHERS IN HOME ECONOMICS. (3, 0, 3). Purposes of the student teaching experience; responsibilities of the cooperating teacher; problems and practices in supervision; evaluation.

551. SEMINAR. (3).

569. ECOTOURISM. (3, 0, 3). Current issues related to the tourism industry stressing the importance of the environment in attracting, managing, and satisfying the traveling public.

570. RESORT DEVELOPMENT. (3, 0, 3). Environmental, social, and economic impacts. Emphasis on physical development of tourism centers and resort areas.

583. DIMENSIONS OF TOURISM. (3, 0, 3). Emphasis on theories and issues affecting tourism.

594. RESEARCH. (3-6). To be taken by non-thesis option master's students only. Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Grades: S, U, W.

597-598. DIRECTED INDIVIDUAL STUDY I, II. (3, 3, 3 ea.).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

INDUSTRIAL TECHNOLOGY (ITEC 058)

409(G). AUTOMOTIVE FLUID MECHANICS. (2, 2, 3). Hydraulic power application used in industry. Principles of operation analysis of systems for proper functioning, safe operation, basic repair, and maintenance of systems common to automotive, machine tool, and other fluid power applications. Prereq: Six semester hours automotive.

415(G). TECHNOLOGY AND ENVIRONMENTAL ISSUES. (3, 0, 3). Impacts of technology on the environment; technological aspects of environmental issues, laws, and regulations. Restr: Juniors and seniors only.

420(G). COMMUNICATIONS AND PC NETWORKING. (2, 2, 3). Data communications concepts, hardware, and fundamentals of network design. LAN configurations, protocols, management, maintenance, upgrading, security, and troubleshooting. Laboratory applications of LAN hardware and software installation. Prereq: ITEC 220.

440(G). WELDING DESIGN PROBLEMS. (2, 2, 3). Application and interpretation of blueprint drawings, welding codes, pressure vessels, manufacturing design, cost analysis; time studies; jig and fixture design, and mass production technique. Prereq: ITEC 340.

445(G). WORLD OF CONSTRUCTION. (2, 2, 3). Emphasis on estimating, designing, blueprint reading, and contracting in the construction of homes. Prereq: ITEC 250.

450(G). ENTREPRENEURIAL CONSTRUCTION MANAGEMENT. (3, 0, 3). Policy and procedures, ethics, incorporation structures, legal issues, business plans and finances, labor issues, bidding and sales

strategies for contractors. Prereq: ITEC 355. Restr: If prerequisite not met permission of instructor required.

473(G). INDUSTRIAL COMPUTER INFORMATION SYSTEMS. (2, 2, 3). Primary emphasis on microcomputer systems. Decision support using spreadsheets and database managers. Internet and multimedia applications. Prereq: ITEC 472 or permission of instructor required.

474(G). QUALITY ASSURANCE TECHNOLOGY. (3, 0, 3). Principles of total quality control in manufacturing and service industries. Use of control charts, acceptance sampling procedures, inspection procedures, reliability and capability studies. Prereq: STAT 214.

497(G)-498(G). DIRECTED INDIVIDUAL STUDY. (1-3). Prereq: Twelve hours in ITEC. Restr: Permission of department required.

INSTRUCTIONAL RESOURCES IN EDUCATION (IRED 064)

420(G). COMPUTER LITERACY FOR EDUCATORS. (3, 0, 3). Introduction to the uses of computers in society and in education.

421(G). METHODS AND MATERIALS FOR COMPUTER EDUCATION. (3, 0, 3). Evaluation and implementation of computer software and methods of teaching about and using computers in the classroom.

500. SOFTWARE APPLICATIONS FOR EDUCATORS. (3, 0, 3).

501. INTEGRATION OF TECHNOLOGY IN INSTRUCTION. (3, 0, 3). Use of application software to develop higher level thinking skills. Prereq: IRED 500.

503. THE INTERNET IN CLASSROOM INSTRUCTION. (3, 0, 3). Prereq: IRED 500.

505. EDUCATIONAL APPLICATIONS OF TELECOMMUNICATIONS AND THE INTERNET. (3, 0, 0). Issues and processes involved in the planning and implementation of computer networks in an educational setting; utilization of the Internet in the classroom to enhance learning.

510. LEARNING ENVIRONMENT DESIGN I. (3, 0, 3). Models for the design, implementation, and evaluation of technology-enhanced instruction based on learning theory and research.

511. LEARNING ENVIRONMENT DESIGN II. (3, 0, 3). Design and development of internet-based multimedia, examination of theory, research, and best practices in the design of multimedia learning environments. Prereq: IRED 510. Restr: If prerequisites not met permission of instructor required.

515. TECHNOLOGY LEADERSHIP IN SCHOOLS. (3, 0, 3). Foundation skills in school-wide planning for technology integration, implementation of standards, professional development, and evaluation.

517. TECHNOLOGY PLANNING AND ADMINISTRATION. (3, 0, 3). Practical aspects of planning and administering school technology implementation plans.

525. DIGITAL MEDIA IN THE CLASSROOM. (3, 0, 3). Prereq: IRED 500.

530. PROFESSIONAL DEVELOPMENT FOR K-12 TECHNOLOGY INTEGRATION. (3, 0, 3). Practical aspects of providing professional development in technology integration for K-12 faculty/staff.

535. LOGO IN THE CLASSROOM. (3, 0, 3). Theory and philosophy, programming, and methods and materials. Prereq: IRED 500.

536. ROBOTICS IN INSTRUCTION. (3, 0, 3). Understanding and using instructional robotics; designing instruction utilizing robotics and probes. Prereq: IRED 535.

545. EVALUATION OF TECHNOLOGY PROGRAMS. (3, 0, 3) Models and techniques for the evaluation of technology program effectiveness.

550. TECHNOLOGY INTEGRATION IN THE CONTENT AREAS. (3, 0, 3). Technology and software applications to develop higher order thinking skills, foster problem-based learning, and improve instruction. Prereq: IRED 501, 503.

575. ADVANCED EDUCATIONAL TELECOMMUNICATIONS AND DISTANCE LEARNING. (3, 0, 3). Technical and pedagogical issues related to telecommunications and distance learning. Prereq: IRED 505.

812. LEADERSHIP IN THE INTEGRATION OF EMERGING TECHNOLOGIES. (3, 0, 3) Designed to provide an interactive, collaborative environment that fosters development of technology leaders with skill in the design and implementation of emerging technologies in the education environment. Students will examine the integration of emerging technologies through field experiences, web-based resources, video case studies, in-class and listserv discussion. (Same as ETEC 812 at Southeastern).

INTERIOR DESIGN (INDS 060)

422(G). HISTORY OF INTERIOR DESIGN. (3, 0, 3). Historical survey of interior design, its relationship to architecture, its economic and social influences, and prevailing design philosophies from ancient through recent history. Emphasis on the evolving character of interior design since 1850.

INTERNATIONAL BUSINESS (IBUS 024)

540. INTERNATIONAL BUSINESS. (3, 0, 3). Course provides a framework for understanding broad issues and analyzing specific topics which affect international business activities in an increasingly interdependent world. The course promotes a multi-disciplinary approach to integrating various facets of international business operations. Restr: Foundation courses in all business disciplines must have been completed.

KINESIOLOGY (KNES 046)

405(G). PHYSICAL EDUCATION FOR THE EDUCATIONALLY DISABLED. (2, 2, 3). Physical and motor characteristics of children classified as mentally disabled, emotionally disturbed, and/or learning disabled. Substantial observation and practical experiences required. Prereq: KNES 306.

406(G). PHYSICAL EDUCATION FOR THE CHRONICALLY DISABLED. (2, 2, 3). Emphasizes the physical and motor characteristics of children with overt physical and/or sensory disabilities of a long-lasting nature. Substantial observation and practical experiences required. Prereq: KNES 306.

407(G). PHYSICAL EDUCATION CURRICULUM FOR INDIVIDUALS WITH DISABILITIES. (3, 0, 3). Development, implementation, and evaluation of a curriculum for persons with disabilities. Prereq: KNES 405G, 406G.

408(G). CURRICULUM DEVELOPMENT. (3, 0, 3). Emphasis on planning progressions in learning experiences of children and youth in the areas of physical education and health.

420(G). LEGAL LIABILITY IN SPORT AND PHYSICAL EDUCATION. (3, 0, 3). Legal duties and responsibilities affecting teachers and coaches of sport and physical education in contemporary society. Emphasis upon prevention and remediation strategies to help insure a reasonably safe environment for participants.

425(G). RECONDITIONING OF SPORTS INJURIES. (3, 2, 4). Emphasis on guidelines and basic principles to enable athletic trainers to properly recondition specific sports injuries. Prereq: KNES 230.

430(G). ADVANCED SPORTS MEDICINE. (3, 0, 3). Includes management strategies and pharmacological aspects of athletic training. Prereq: KNES 330. Restr: If prerequisite not met permission of instructor required.

443(G). EXERCISE AND SPORT PSYCHOLOGY. (3, 0, 3). Study of psychological processes, principles, and problems influencing behavior in sport. Research based information of factors such as personality, arousal, anxiety, and group dynamics is applied to the psychodynamics of exercise and sport.

445(G). SPORTS ERGOGENICS; ENHANCEMENT OF PERFORMANCE. (3, 0, 3). Comprehensive and current scientific information on athletic ergogenics. Possible benefits and harmful side effects of nutritional, pharmacological, physiological and biomechanical aids.

449(G). SECONDARY SCHOOL HEALTH AND PHYSICAL EDUCATION METHODS. (3, 0, 3). Strategies and materials for teaching Secondary Health and Physical Education. Restr: Successful completion of all courses listed for the freshman and sophomore years of the student's curriculum; a grade point average of 2.5 overall and a grade of "C" or better in the major and minor fields of study.

493(G). TEACHING LIFETIME SPORTS. (3, 0, 3). Theoretical, methodological and evaluation techniques applied to selected traditional lifetime sports: archery, badminton, bowling, golf, tennis. Emphasis on the development of teaching competencies.

494(G). TEACHING LIFETIME SPORTS II. (3, 0, 3) Theoretical, methodological and evaluation techniques applied to selected non-traditional lifetime sports: camping, backpacking, aquatic activities, new games and fire arms. Emphasis on the development of teaching competencies.

497(G)-498(G). SPECIAL PROJECTS IN KINESIOLOGY I & II. (1-3 ea.).

499(G). INTERNSHIP IN KINESIOLOGY. (3-6). Includes class meetings and placement in an approved professional setting. Restr: Senior standing and 2.5 GPA or permission of instructor required.

500. FOUNDATIONS. (3, 0, 3). Interpretive study and analysis of the scientific foundations and principles of physical education, health, and recreation stressing the scientific facts of these areas.

502. MEASUREMENT AND EVALUATION. (2, 2, 3). Emphasis on advanced study of the selection and construction of valid testing techniques related to over-all evaluation. Includes lab experiences.

503. MOTOR LEARNING. (2, 2, 3). Emphasis on the psychological aspects of motor learning with minor emphasis on the physiological aspects of motor learning. Includes lab experiences.

504. PHYSIOLOGICAL IMPLICATION OF EXERCISE AND FITNESS. (2, 2, 3). Emphasis on muscular efficiency and exercise performance. Analysis of current studies and techniques of utilizing equipment encountered in a physiology of exercise laboratory. Prereq: KNES 303 or permission of the department head.

505. SUPERVISION. (3, 0, 3). Role of supervision in the development of school programs for physical education and health.

506. SEMINAR. (3). Investigation of current literature, critical issues, and selected problems related to physical education and health. Restr: Nine hours of graduate work required.

530. PROGRAM PLANNING AND EVALUATION FOR HEALTH AND FITNESS PROFESSIONALS. (3, 0, 3). Design, implementation concerns, and evaluation techniques for health and kinesiology programs.

540. PSYCHOLOGY FOR HEALTH AND FITNESS PROFESSIONALS. (3, 0, 3). Introduction to psychosocial issues related to exercise behaviors emphasizing intervention strategies, adherence, arousal, anxiety, the social dynamic associated with physical activity and activity settings.

560. BIOMECHANICS OF HUMAN MOVEMENT. (3, 0, 3). Critical analysis of biomechanical principles as they apply to both specific and general human movement and patterns. Additional emphasis will center about research, methods and analytic techniques characterized by the biomechanical discipline. Further attention will be directed toward practical application, critical reading of research, and recognition of potential research. Restr: Permission of instructor required.

593. ELEMENTARY SCHOOL PHYSICAL EDUCATION. (3, 0, 3). Designed for the classroom teacher with emphasis in physiological, sociological, psychological characteristics of children in regard to planning activities. Additional emphasis on methodology as applied to teaching movement.

597. INDIVIDUAL STUDY. (3). Students pursue in-depth advanced projects.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

MANAGEMENT (MGMT 065)

503. MANAGEMENT OF ORGANIZATIONS AND BEHAVIORAL PROCESSES. (3, 0, 3). Management functions, with emphasis on both organizational and behavioral processes.

525. ORGANIZATIONAL BEHAVIOR AND LEADERSHIP. (3, 0, 3). Theory and practices including individual behavior, motivation, group dynamics, organizational structure, quality management, and leadership skills. Prereq: MBA 502 or equivalent.

540. CORPORATE ENTREPRENEURSHIP. (3, 0, 3). Strategic competencies to develop technology driven entrepreneurship in organizations. Prereq: MBA 502.

550. QUALITY MANAGEMENT. (3, 0, 3). Application of Total Quality Management concepts to all processes in organizations, with emphasis on continuous quality improvement in the delivery of goods and services.

565. PERSONNEL ADMINISTRATION. (3, 0, 3). In-depth analysis of the function of the personnel department in the organization and administration of the human resources, including employee selection, training, development, and planning for intermediate and long term personnel needs. Prereq: MBA 502.

585. MANAGEMENT PRACTICUM. (3, 0, 3). Strategic consultation activities and service-learning opportunities with community businesses and agencies using student teams. Restr: Permission of instructor and MBA director required.

590. POLICY FORMULATION, STRATEGY, AND ADMINISTRATION. (3, 0, 3). Capstone course. Emphasis is on integrated application of MBA core courses concepts. Problem analysis and decision making at an integrative level are stressed. Restr: Must be taken in the semester in which all degree requirements are fulfilled.

595. INTERNSHIP IN BUSINESS ADMINISTRATION. (1-3). May be repeated with 1 to 3 hours credit each semester up to 6 credit hours. Supervised work experience. Elective in the MBA program not applicable toward degree requirements.

597. DIRECTED INDIVIDUAL STUDY. (3, 0, 3). Detailed independent graduate level study and research, under faculty direction. A prospectus and the product(s) of the study will become part of the student's file. Restr: Permission of instructor and MBA director required.

MARKETING (MKTG 066)

524. MARKETING MANAGEMENT. (3, 0, 3). Provides guidelines for developing marketing plans and programs while emphasizing the application of marketing concepts, tools, and decision making processes. Prereq: MBA 503 or equivalent is required.

525. PRODUCT MANAGEMENT. (3, 0, 3). Investigation of the essential components of product management, with emphasis upon the innovation process, methods of new product analysis, strategy formulation, implementation, organization, and control. Prereq: MBA 503.

535. CONTEMPORARY MARKETING ISSUES. (3, 0, 3). Comprehensive survey of current issues and topics of importance to both firms and society. Individual investigation and reporting emphasized in seminar fashion. Prereq: MBA 503.

550. MARKETING RESEARCH. (3, 0, 3). Introduction to marketing research techniques. Provides knowledge of and experience in formulating marketing research methodology, data collection procedures, data sources, and the interpretation and analysis of quantitative and qualitative material. Prereq: MBA 503.

555. CONSUMER BEHAVIOR. (3, 0, 3). Introduces the concepts developed in economics, psychology, sociology, and anthropology and their relationship to consumer behavior. Emphasis is placed on relating behavioral concepts to the marketing mix development. Prereq: MBA 503.

560. HEALTH CARE MARKETING. (3, 0, 3). Management of the interface between the health care provider and its external environment. Formation of marketing strategy, policies and practices that guide the promotion, positioning, and policies on systems, institutional or departmental levels. Specific marketing concepts and tools with an understanding of the variety of marketing applications to the administration of health delivery. Prereq: MBA 503.

570. MULTINATIONAL MARKETING MANAGEMENT. (3, 0, 3). Theoretical and empirical materials on multinational marketing, including nature and justification of international trade, analysis of environments faced by multinational firms and formulation of multinational marketing strategy. Prereq: MBA 503.

580. SPECIAL TOPICS. (3, 0, 3). Current issues in Marketing or Business Law.

597. DIRECTED INDIVIDUAL STUDY. (3, 0, 3). Detailed independent graduate level study and research, under faculty direction. A prospectus and the product(s) of the study will become part of the student's file. Restr: Permission of instructor and MBA director required.

MASTER OF BUSINESS ADMINISTRATION (071)

500. SURVEY OF ACCOUNTING. (3, 0, 3).

501. SURVEY OF ECONOMICS AND FINANCE. (3, 0, 3).

502. SURVEY OF MANAGEMENT AND MANAGEMENT INFORMATION SYSTEMS. (3, 0, 3).

503. SURVEY OF MARKETING AND THE LEGAL ENVIRONMENT OF BUSINESS. (3, 0, 3).

504. SURVEY OF STATISTICS AND OPERATIONS MANAGEMENT. (3, 0, 3).

580. SPECIAL TOPICS. (3, 0, 3). Current issues in business organizations. Restr: Permission of MBA director required.

MATHEMATICS (MATH 067)

413(G). PROBLEM SOLVING FOR SECONDARY TEACHERS (3, 0, 3). Non-routine problems from number theory, proportional reasoning, functions, counting techniques, probability, geometry, linear algebra. Relating these topics to the teaching of secondary mathematics. Prereq: MATH 360 with a grade of "C" or better.

414(G). NUMBER THEORY AND ABSTRACT ALGEBRA FOR SECONDARY TEACHERS. (3, 0, 3). Equivalence classes, congruence modulo n , divisibility theorems and the Euclidean Algorithm. Introduction to semigroups, abelian and non-abelian groups, rings, and fields. Homomorphisms and isomorphisms. Relating these topics to the teaching of secondary mathematics. Prereq: MATH 360 with a grade of "C" or better.

430(G). COLLEGE GEOMETRY. (3, 0, 3). Euclidean and non-Euclidean geometry presented intuitively and rigorously. Prereq: MATH 360 with a grade of "C" or better.

435(G). INTRODUCTION TO TOPOLOGY. (3, 0, 3). Topological spaces and properties. Prereq: MATH 360 with a grade of "C" or better.

440(G). VECTOR ANALYSIS. (3, 0, 3). Vector algebra, vector calculus, applications in physics and engineering. Prereq: MATH 302 with a grade of "C" or better.

450(G). MATHEMATICAL MODELING. (3, 0, 3). Development of mathematical models arising in various areas of application in the physical, biological, and social sciences. Prereq: MATH 350, with a "C" or better and working knowledge of FORTRAN.

451(G). BIOMATHEMATICS I. (3, 0, 3). Development and analysis of discrete-time models in biology. Prereq: MATH 301 with a grade of "C" or better.

452(G). BIOMATHEMATICS II. (3, 0, 3 ea.). Development and analysis of continuous-time models in biology. Prereq: MATH 350 with a grade of "C" or better.

455(G). NUMERICAL ANALYSIS. (3, 0, 3). Computer applications for the solution of systems of equations, polynomial approximation, numerical differentiation and integration, numerical solutions of differential equations. Prereq: MATH 350 with a grade of "C" or better and working knowledge of a computer language or mathematical software.

462(G). LINEAR ALGEBRA. (3, 0, 3). Vector spaces and linear transformations. Matrices, determinants, linear systems, eigenvalues. Inner Products. Prereq: MATH 360 with a grade of "C" or better.

463(G). NUMBER THEORY. (3, 0, 3). Divisibility properties of integers, congruences, prime numbers, Diophantine equations. Prereq: MATH 360 with a grade of "C".

465(G), 466(G). MODERN ALGEBRA I, II. (3, 0, 3 ea.). Introduction to abstract algebraic systems. Prereq: MATH 360 with a grade of "C" or better.

470(G). TOPICS FOR MATHEMATICS TEACHERS. (3, 0, 3). May be repeated for credit as content varies. Not to be applied toward a degree in mathematics. Restr: Permission of instructor required.

475(G). COMPLEX VARIABLES. (3, 0, 3). Theory of functions of a complex variable with applications in physics and engineering. Prereq: MATH 302 with a grade of "C" or better.

481(G). COMBINATORIAL MATHEMATICS. (3, 0, 3). Algebraic structures, disjunctive normal forms, binomial and multinomial coefficients, generating functions, partitions of integers. Polya's enumeration formula and applications. Prereq: MATH 302 with a grade of "C" or better.

483(G). APPLIED GRAPH THEORY. (3, 0, 3). Paths, circuits and connectivity, coloring of maps and graphs. Graph traversal algorithms, directed graphs. Network algorithms, spanning trees, pruning analysis with applications. Prereq: MATH 301 with a grade of "C" or better.

487(G). COMPUTATIONAL MATHEMATICS. (3, 0, 3). Algebraic, symbolic, and numerical computations; modern concepts of visualization; applications towards calculus, differential equations, linear algebra, data analysis, numerical analysis, and special functions. Prereq: MATH 350 with a minimum grade of "C" or better.

491(G). DISCRETE & INTEGRAL TRANSFORMS. (3, 0, 3). Discrete and integral transforms with applications. Prereq: MATH 350 with a grade of "C" or better.

493(G)-494(G). ADVANCED CALCULUS I, II. (3, 0, 3 ea.). Rigorous study of the theory of calculus. Prereq: MATH 302, and MATH 360 with grades of "C" or better.

495(G). ADVANCED MATHEMATICS FOR ENGINEERS & SCIENTISTS. (3, 0, 3). Systems of first order differential equations, partial differential equations, Fourier series, Sturm-Liouville systems, Helmholtz equation, Green's functions, applications in engineering and sciences. Prereq: MATH 350 with a grade of "C" or better.

497(G)-498(G). SPECIAL PROJECTS I, II. (3 ea.). Special and individual study projects. Restr: Permission of instructor required.

511-512. TOPICS IN MATHEMATICS FOR MIDDLE SCHOOL TEACHERS I, II. (3, 0, 3 ea.). May be repeated for credit as topics vary. For the practicing middle school teacher. Covers various topics in algebra, geometry, number theory, problem solving, probability. Restr: Cannot be applied toward a degree in mathematics.

513-514. TOPICS IN MATHEMATICS FOR HIGH SCHOOL TEACHERS I, II. (3, 0, 3 ea.). May be repeated for credit as topics vary. For the practicing high school teacher. Covers various topics in algebra, geometry, number theory, problem solving, probability. Restr: Cannot be applied toward a degree in mathematics.

535-536. TOPOLOGY I, II. (3, 0, 3 ea.). Detailed study of general topology. Restr: Permission of department required.

537-538. ALGEBRAIC TOPOLOGY I, II. (3, 0, 3 ea.). Homology and homotopy theory, manifolds. Restr: Permission of department required.

554. NUMERICAL SOLUTIONS OF DIFFERENTIAL EQUATIONS. (3, 0, 3). Finite element method, functional analysis, approximation theory, and other topics. Prereq: MATH 455(G) or permission of department.

555-556. ADVANCED NUMERICAL ANALYSIS I, II. (3, 0, 3 ea.). Advanced numerical linear algebra, optimization, nonlinear systems, topics from approximation theory, quadrature, numerical solutions of differential equations. Prereq: MATH 455(G) or permission of department.

561-562. LINEAR ALGEBRA & APPLICATIONS, I, II. (3, 0, 3 ea.). Vector spaces and linear transformations over fields, matrices, diagonalization, canonical forms, multilinear algebra, spectral decomposition, inner products, normed spaces, and applications. Prereq: MATH 462(G) or permission of department.

565-566. ABSTRACT ALGEBRA I, II. (3, 0, 3 ea.). Theory of groups, rings, fields, and related algebraic structures. Restr: Permission of department required.

570. RESEARCH METHODS. (1-6). May be repeated for credit. Restr: Permission of instructor required. Grade: NC/CR.

573-574. REAL AND FUNCTIONAL ANALYSIS I, II. (3, 0, 3 ea.). Measure and integration theory. An introduction to functional analysis. Prereq: MATH 493-494(G) or permission of department.

575-576. COMPLEX ANALYSIS I, II. (3, 0, 3 ea.). Theory of functions of a complex variable. Prereq: MATH 493-494(G) or permission of department.

583-584. THEORY OF DIFFERENTIAL EQUATIONS IN ABSTRACT SPACES I, II. (3, 0, 3 ea.). Qualitative and quantitative theory of differential equations in concrete and abstract spaces. Linearization techniques including perturbation theory, theory of Lyapunov, upper and lower solutions method, monotone method and quasilinearization method. Elements of bifurcation and chaos and applications.

587. ASYMPTOTIC & PERTURBATION METHODS. (3, 0, 3). Asymptotic expansion, asymptotic analysis, regular and singular perturbation theory. Prereq: MATH 493 or MATH 495 or permission of department.

591. SEMINAR. (1). May be repeated when topics vary. Grades: CR/NC.

594. RESEARCH. (3-6). Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Restr: To be taken by non-thesis option master's students only. Grades: S, U, W.

595-596. DIFFERENTIAL EQUATIONS I, II. (3, 0, 3 ea.). Cauchy-Kowalewsky theorem, well-posed and ill-posed problems, eigenvalue problems, maximum principles, Green's functions, nonlinear problems. Prereq: MATH 493-494(G) or MATH 495(G) or permission of department.

597-598. SPECIAL TOPICS I, II. (3 ea.). Special topics or individual study. Restr: Permission of instructor required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

635-636. ADVANCED TOPICS IN GENERAL TOPOLOGY I, II. (3, 0, 3 ea.). May be repeated for credit when topics vary. Prereq: MATH 535-536 or permission of department.

655-656. ADVANCED TOPICS IN NUMERICAL ANALYSIS I, II. (3, 0, 3 ea.). May be repeated for credit when topics vary. Prereq: MATH 555-556 or permission of department.

665-666. ADVANCED TOPICS IN ABSTRACT ALGEBRA I, II. (3, 0, 3 ea.). May be repeated for credit when topics vary. Prereq: MATH 565-566 or permission of department.

677-678. ADVANCED TOPICS IN ANALYSIS I, II. (3, 0, 3 ea.). May be repeated for credit when topics vary. Restr: Permission of instructor required.

695-696. ADVANCED TOPICS IN APPLIED MATHEMATICS I, II. (3, 0, 3 ea.). May be repeated for credit when topics vary. Restr: Permission of department required.

697-698. SEMINAR I, II. (3 ea.). Restr: Permission of instructor required.

699. DISSERTATION RESEARCH & DISSERTATION. (1-24). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

MECHANICAL ENGINEERING (MCHE 068)

463(G). COMPUTER-AIDED MANUFACTURING I. (2, 3, 3). Tooling for the CNC turning center, process planning, manual programming of CNC machines, computer-assisted code generation, and design for manufacturability. Prereq: MCH 365.

464(G). COMPUTER-AIDED MANUFACTURING II. (2, 3, 3). Tooling for the CNC milling center, transfer of CAD databases to CAM systems, post processing and CNC interface, design for automation and assembly,

programmable logic controllers, and flexible manufacturing systems. Robotic applications. Prereq: MCHE 365.

466(G). ENVIRONMENTAL ENGINEERING. (2, 3, 3). Psychrometric processes, heating and cooling load calculations, heating and cooling systems, refrigerants and refrigeration systems, cryogenics. Analysis and design of a complete environmental control system. Prereq: ENGR 301, 304; MCHE 469.

474(G). CONTROL SYSTEMS. (2, 3, 3). Introduction to classical and digital control theory. Response of first and second-order systems, stability analysis and frequency response methods. Introduction to computer control of machines and processes. Use of modeling techniques in control system design. Prereq: MATH 302 and 350.

477(G). COMPUTER-AIDED DESIGN. (2, 3, 3). Content varies. May be repeated for credit. Prereq: MCHE 301 (formerly MCHE 377).

478(G). FINITE ELEMENT ANALYSIS. (2, 3, 3). Finite element analysis of complex shells and solids, thermal conduction problems, and dynamic response of structures; engineering evaluation of complex assembled systems; analysis of kinematic linkages; advanced modeling techniques. Prereq: MCHE 301, 363, 467.

485(G). MECHANICAL VIBRATIONS. (2, 3, 3). Analytical and laboratory investigations of single and two degree-of-freedom systems. Design of vibration dampers. Introduction of multi-DOF systems and modal analysis. Prereq: ENGR 313, MATH 350; MCHE 301.

508. ENGINEERING PROJECT MANAGEMENT. (3, 0, 3). Principles of engineering management applicable to project development and implementation. Includes topics such as systems theory and concepts, organizational structure, project planning, scheduling, staffing, budgeting, and control of engineering projects.

513. INTERMEDIATE DYNAMICS. (3, 0, 3). Three dimensional rigid body motion in non-inertial reference frames. Orbital mechanics, including stability. Energy methods applied to mechanical systems. Computer applications utilized as appropriate. Prereq: Basic course in dynamics.

540. QUALITY ENGINEERING. (3, 0, 3). Engineering and management methods to improve quality, such as system/parameter/tolerance design for product and production process development, feedback and process parameter control, attribute characteristics and process improvement, re-engineering, and total quality management.

561. ADVANCED FLUID MECHANICS. (3, 0, 3). Development of mathematical models and analytical solutions in the dynamics of the fluid continuum. Analysis of compressible and incompressible flow. Introduction to aerodynamics. Prereq: ENGR 304.

562. INTERNAL-COMBUSTION ENGINES AND TURBOMACHINERY. (3, 0, 3). Analysis of the thermodynamic characteristics of internal-combustion engines of the piston and rotary types; super-charging, gas turbines, jet-propulsion systems; aero-thermodynamic study of turbo-machinery. Prereq: MCHE 461.

563. THERMAL FLUIDS SYSTEM DESIGN. (2, 3, 3). Analysis and design of complete thermal and fluid systems. Emphasis on industrial applications. Prereq: MCHE 461.

565. ADVANCED HEAT TRANSFER. (3, 0, 3). Development and comprehensive treatment of the laws governing conduction, convection, and radiation, with problems using analytical and numerical techniques. Includes steady-state and transient heat conduction, introduction to boundary layer theory; radiation network analysis. Prereq: MCHE 461, 469.

569. NUMERICAL HEAT TRANSFER AND FLUID FLOW. (3, 0, 3). Development of computational techniques for the solution of multi-dimensional fluid flow, heat and mass transfer, and chemical reactions in

problems of practical interest. Numerical methods include Explicit, Implicit, Crank-Nicholson, Upwind Scheme, Hybrid Scheme, Power-Law Scheme, etc. Prereq: MCHE 469.

570. ADVANCED COMPUTER CONTROLLED SYSTEMS. (2, 1, 3). Advanced computer hardware interfacing design course. Detailed survey of standard bus systems and their applications. Computer-aided design and simulation of control system design. Prototyping implementation of control design. Newest technology control and data acquisition devices are discussed. Restr: Permission of instructor required.

572. INTEGRATED PRODUCT AND PROCESS DEVELOPMENT. (3, 0, 3). Development of a concurrent and integrated product and process organization, analysis of all aspects of product and process-related design activities. Industrial case studies. Restr: Permission of instructor required.

573. ROBUST DESIGN. (3, 0, 3). Fundamental principles of robust design, history of the robust design engineering methodology, and detailed study of loss functions, concept selection, parameter design, tolerance design, Taguchi's method, and procedures to optimize the performance of a product or process in spite of variability. Restr: Permission of instructor required.

578. SPECIAL TOPICS. (3).

583. COMPUTER-AIDED ENGINEERING. (3, 0, 3). Combination of computer-aided design and manufacturing principles into an integrated system approach using the digital computer. Use of several software packages to simulate engineering systems.

585. ADVANCED VIBRATIONS. (3, 0, 3). Study of multi-degree of freedom systems, continuous systems and experimental methods of system analysis. Investigation of finite element methods of structural analysis. Prereq: MCHE 485.

595. ENERGY SYSTEMS DESIGN. (3, 0, 3). Energy systems design and management, energy use option, and computer applications as appropriate. Restr: Undergraduate degree in Engineering or equivalent required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

MUSIC (MUS 074)

401(G). CHORAL ARRANGING. (2, 1, 2). Prereq: MUS 250.

413(G). ORCHESTRAL LITERATURE. (3, 0, 3). Historical survey of compositions from the Mannheim School to the present.

415(G). THE AESTHETICS OF MUSICAL PERFORMANCE. (1, 1, 2). Aesthetics, expressive devices, and acoustical concerns related to musical performance through score analysis.

418(G). STRING PEDAGOGY. (2, 1, 3). Covers two aspects of string teaching: a) techniques-improving performance; and b) string teaching materials method books, beginning orchestra and solo literature.

428(G). TOPICS IN KEYBOARD LITERATURE. (3, 0, 3). Contents may vary each time the course is offered. Advanced course for pianists on specialized topics. Prereq: MUS 427.

430(G). THEORY VI: MODAL COUNTERPOINT. (3, 0, 2). Analysis and composition in forms and techniques of Western music before 1600. Prereq: MUS 250.

434(G). BAND LITERATURE. (3, 0, 3). Survey of the history of the literature for the symphonic band through the study of the styles of major band composers.

445(G). ELECTRONIC AND COMPUTER APPLICATIONS IN MUSIC COMPOSITION. (3, 0, 3). Introduction to digital synthesis techniques and computer applications in music composition, notation, and performance.

460(G). ADVANCED PIANO PEDAGOGY. (3, 0, 3). Literature and technique for the advancing piano student. Emphasis on stylistic considerations of music from all periods.

461(G). METHODS AND RESEARCH IN VOCAL PEDAGOGY. (3, 0, 3). Physiological aspects of singing. Common deficiencies in techniques; methods of correction.

464(G). OPERATIC LITERATURE. (2, 1, 3). Detailed survey of the great operatic works in the Baroque, Classical, Romantic, and Modern periods.

465(G). SONG LITERATURE. (3, 0, 3). Survey of the literature of song from the 17th century to the present, with an emphasis on the 19th century.

471(G). CHORAL LITERATURE. (3, 0, 3). Survey of choral literature, its sources, and criteria for selection according to use.

473(G). SCORE STUDY I. (2, 0, 2). In-depth study in the analytical techniques of choral music with specific emphasis on small forms.

474(G). SCORE STUDY II. (2, 0, 2). In-depth study in the analytical techniques of choral music with specific emphasis towards small forms.

507. GRADUATE PREPARATORY SURVEY II: MUSIC THEORY. (3, 0, 3). Intended for graduate students for whom a one semester review of music theory would prove helpful. Will not count toward graduate degree requirements. CR/NC grading.

509. MUSIC EDUCATION IN THE ELEMENTARY SCHOOL. (3, 0, 3). Survey of teaching techniques and materials used in the classroom.

511. CHORAL TECHNIQUES. (3, 0, 3). Advanced choral techniques and literature; comprehensive musicianship through choral and academic classes in music.

513. BAND REHEARSAL TECHNIQUES. (3, 0, 3). Emphasis on rehearsal organization, verbal and non-verbal aspects, effective strategies, and improvement in performance quality.

514. ORCHESTRAL LITERATURE FOR CONDUCTORS. (3, 0, 3).

515. MUSIC RESEARCH AND BIBLIOGRAPHY. (3, 0, 3). Seminar will introduce the graduate music student to the bibliographic tools required for research in the discipline. Required course in all graduate degree programs in music.

517. TOPICS IN MUSIC EDUCATION. (3, 0, 3). Content varies. May be repeated for credit once.

518. CURRENT PHILOSOPHIES OF MUSIC. (3, 0, 3). Study of the historical development and investigation of current philosophies of music as they relate to the contemporary performer and teacher.

519. ADMINISTRATION AND SUPERVISION OF THE SCHOOL MUSIC PROGRAM. (3, 0, 3). Emphasis on purposes, functions and techniques.

APPLIED MUSIC LESSONS:

520. VOICE. (3, 0, 3).

- 521. PIANO. (3, 0, 3).**
- 522. HARPSICHORD. (3, 0, 3).**
- 524. FLUTE. (3, 0, 3).**
- 525. CLARINET. (3, 0, 3).**
- 526. OBOE. (3, 0, 3).**
- 527. BASSOON. (3, 0, 3).**
- 528. SAXOPHONE. (3, 0, 3).**
- 529. TRUMPET. (3, 0, 3).**
- 530. TROMBONE. (3, 0, 3).**
- 531. HORN. (3, 0, 3).**
- 532. BARITONE. (3, 0, 3).**
- 533. TUBA. (3, 0, 3).**
- 534. VIOLIN. (3, 0, 3).**
- 535. VIOLA. (3, 0, 3).**
- 536. CELLO. (3, 0, 3).**
- 537. STRING BASS. (3, 0, 3).**
- 538. PERCUSSION. (3, 0, 3).**
- 539. CONDUCTING. (3, 0, 3).**
- 540. INTERNSHIP RECITAL. (3, 0, 3).** Performance pedagogy only. Grades: CR, NC and W.
- 541. GUITAR. (3, 0, 3).**
- 542. COMPOSITION. (3, 0, 3).** Advanced study in composition with correlated analysis and listening.
- 544. GRADUATE ENSEMBLE. (1-2).** Performance ensemble.
- 550. RECITAL. (3, 0, 3).** Grades: NC/CR.
- 561-562. SEMINAR IN MUSIC HISTORY I, II. (3, 0, 3 ea.).** Seminars will focus upon broad historical topics to be chosen by the instructor i.e., American music 1700-1900; Bach and Handel; Berlioz and the 19th century, etc. Each student will be responsible for specific aspects of the general topic. Findings will be presented both orally and in formal written form.
- 571. OPERA. (2, 4, 3).** Production techniques: a) artistic and administrative responsibilities; b) preparation; c) styles; d) artistic visualization; e) actual performance.
- 573. SURVEY OF MUSIC THEORY. (3, 0, 3).** Survey of Western-music history and styles from Ancient Greeks to the present. Emphasis on theoretic and other source readings.

575. MUSIC THEORY PEDAGOGY. (3, 0, 3). Development of lesson plans, research, and practices for teaching music theory interactively in the college classroom. Field experiences include micro-teaching units in freshman/sophomore courses.

577. ANALYSIS OF TONAL MUSIC. (3, 0, 3). Survey of theories to tonal music, and their corresponding analytical methods. Emphasis on Rameau, Riemann, and Schenker.

578. ANALYSIS OF 20TH CENTURY MUSIC. (3, 0, 3). Survey of contemporary music styles and techniques, with special emphasis on theories and analytic methods.

580. GRADUATE KEYBOARD LITERATURE. (3, 0, 3). Study of keyboard works from the baroque through twentieth century, emphasizing stylistic and performance aspects of the music.

595. DIRECTED STUDIES IN PERFORMANCE PEDAGOGY. (3, 0, 3). In-depth exploration of selected topics specifically pertaining to various aspects of performance pedagogy in the student's major area.

597-598. SPECIAL PROJECTS IN MUSIC RESEARCH. (3, 0, 3 ea.).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

NURSING (NURS 077)

500. THEORETICAL FOUNDATIONS OF ADVANCED NURSING. (3, 0, 3). Systematic examination of the concepts of nursing, human beings, health and environment as the basis for the advanced practice of nursing in a variety of healthcare settings. Includes an analysis of major theories of nursing, the nature and use of theory, the process of theory construction, the implications of theoretical formulations for nursing practice, and the development of a personal theory of nursing. Same as NURS 600 in ICMSN.

502. GENERATING EVIDENCE FOR NURSING PRACTICE. (3, 0, 3). Logic, methods, and techniques of scientific research using an evidence-based approach. Emphasis on critical appraisal of existing evidence, design decisions, psychometrics, and appropriate statistical analyses. Students design a research proposal applicable to nursing practice. Prereq: STAT 417 or introductory statistics course. Pre or coreq: NURS 500. Same as 602 in ICMSN.

504. ISSUES IN ADVANCED NURSING. (3, 0, 3). Current issues confronting advanced practice nursing. Strategies to influence healthcare decisions. Same as NURS 604 in ICMSN.

506. HEALTH ASSESSMENT AND DIAGNOSTIC REASONING PRACTICUM. (0,4,1). Clinical practicum to apply advanced knowledge and clinical skills related to health assessment and development of individuals in groups and communities throughout the life cycle. Coreq: NURS 516. Grades: CR/NC. Same as NURS 606 in ICMSN.

508. DIAGNOSTIC CONSIDERATIONS AND PSYCHOPHARMACOLOGY FOR PSYCHIATRIC DISORDERS. (3, 0, 3). Psychopharmacological and other biological therapies currently utilized to treat specific mental illnesses based on current science and practice standards with emphasis on optimal outcomes. Prereq: NURS 517, 518. Coreq: NURS 542. Same as NURS 608 in ICMSN.

509. POPULATION-BASED PRIMARY CARE. (3, 0, 3). Analysis and synthesis of major theoretical, empirical, and clinical foundations of population-based primary health care. Populations-at-risk in culturally diverse community settings are examined. Emphasis on building advanced practice nursing competencies to assess and address unmet primary care and health service needs. Focus is also place on epidemiological techniques for community assessment and program planning, implementation, and evaluation. Prereq or coreq: NURS 500. Same as NURS 609 at MSU.

516. HEALTH ASSESSMENT AND DIAGNOSTIC REASONING FOR ADVANCED NURSING PRACTICE. (3, 0, 3). Diagnostic reasoning models and theories utilizing knowledge of advanced health assessment and development of individuals in groups and communities throughout the life cycle. Emphasis on multi-generational, gender, and cultural/ethnic issues. Coreq: NURS 506. Grades: CR/NC. Same as NURS 616 in ICMSN.

517. PHARMACOTHERAPEUTICS FOR ADVANCED PRACTICE. (3, 0, 3). Application of pharmacotherapeutics to management of clients across the life-span. Includes appropriate natural/alternative health care, educative management strategies, and expected outcomes. Same as NURS 617 in ICMCN.

518. PATHOPHYSIOLOGY FOR ADVANCED PRACTICE. (3, 0, 3). Focus on expanding the knowledge base and critical thinking skills to enhance clinical judgments utilizing physiological, pathological, and diagnostic testing for health promotion and disease prevention in individuals across the life span of diverse cultural/ethnic backgrounds. Same as NURS 618 in ICMSN.

533. LEADERSHIP AND MANAGEMENT IN NURSING EDUCATION. (3, 0, 3). Foundational course on leadership and management of academic programs. Examines the nature of contemporary nursing education programs in institutions of higher education. Same as NURS 633 in ICMSN.

534. NURSING EDUCATION CONCEPTS AND FOUNDATIONS. (3, 0, 3). Foundational course on nursing concepts and educational theories that relate to nursing education. Examines the nature of contemporary nursing education. Same as NURS 634 in ICMSN.

535. CURRICULUM AND EVALUATION IN NURSING EDUCATION. (3, 0, 3). Analysis and synthesis of theories and concepts related to curriculum development and evaluation in nursing. Emphasis on institutional purposes, goals, curriculum design, program evaluation, and nursing research in both academic and staff development content. Introduces curriculum development process and factors influencing curriculum development, implementation, and evaluation. Prereq: NURS 534. Same as NURS 635 in ICMSN.

536. INSTRUCTIONAL DESIGN IN NURSING EDUCATION. (3, 0, 3). Analysis and synthesis of theories and concepts related to instructional design for nursing education and practice. Introduces instructional design methods appropriate to academic/practice settings, including undergraduate teaching, nursing staff development, and continuing education. Prereq or coreq: NURS 535. Same as NURS 636 in ICMSN.

537. NURSING EDUCATION PRACTICUM. (2, 5, 3). Application of nursing education concepts to teaching through selected mentored academic/practice situations. Prereq: NURS 534, 535, 536. Same as NURS 637 in ICMSN.

538. ADVANCED CLINICAL CONCEPTS IN NURSING PRACTICE. (0, 15, 3). Development of advanced clinical nursing competencies in a selected clinical focus area under the supervision of an approved preceptor. The clinical focus options include adult, community, medical-surgical, obstetrics, pediatrics, or psychiatric-mental health nursing. Prereq: NURS 500, 502. Same as NURS 638 in ICMSN.

539. ADVANCED NURSING EDUCATION PRACTICUM. (1, 15, 4). Implementation of the nurse educator role in selected mentored client care environments. Prereq: NURS 537, 538. Same as NURS 639 in ICMSN.

542. ADVANCED PRACTICE NURSING: ADULT PSYCHIATRIC/MENTAL HEALTH I. (3, 8, 4). Introduction to initial diagnostic assessment, basic individual psychotherapeutic processes, interventions, and modalities with focus on differential diagnosis, risk-analysis, and clinical management of clients with common psychiatric disorders. Prereq: NURS 502, 504, 516, 517, 518. Coreq: NURS 508. Same as NURS 642 in ICMSN.

543. ADVANCED PRACTICE NURSING: ADULT PSYCHIATRIC/MENTAL HEALTH II. (3, 16, 5). Addresses advanced Psychiatric/Mental Health Nursing competencies with a focus on clinical management,

intervention, and evaluation of outcomes for clients with common psychiatric disorders. Emphasis on clients from vulnerable populations. Provides opportunity for clinical practice (including individual, group, family therapies, and medication management) in advanced Psychiatric/Mental Health Nursing under the supervision of approved preceptors.

546. POLICY, ORGANIZATION, AND STRUCTURE IN HEALTH CARE SYSTEMS. (3, 0, 3). Prepares nurse leaders for active participation in policy making for health care organizations, professional associations, and governmental agencies. Focuses on managerial decisions and influences that contribute to policy at the organizational, local, national, and international levels. Prereq: NURS 500, 502. Same as NURS 646 in ICMSN.

548. NURSE LEADERSHIP/MANAGEMENT IN HEALTH CARE ORGANIZATIONS. (3, 0, 3). Emphasizes key skills employed by successful nurse leaders/managers: critical thinking, effective communication, conflict resolution, delegation, team building, resource management, quality improvement, stress management, and leading change. Prereq: NURS 500 502. Same as NURS 648 in ICMSN.

549. HEALTH CARE WORKFORCE MANAGEMENT. (3, 0, 3). Workforce planning, development, and conservation. Emphasis on creating a workplace of choice and alignment of the workforce with organizational strategic goals and performance. Prereq: NURS 500, 502. Same as NURS 649 in ICMSN.

554. NURSE LEADERSHIP AND ADMINISTRATION FIELD STUDY I. (1, 5, 2). Development of the nurse leader role in a practicum experience under the guidance of faculty-supervised preceptors. Focus is on developing a philosophy and framework for nursing administration that promotes delivery of effective, efficient services in a multi-discipline setting. Prereq: NURS 509. Pre/coreq: NURS 546, 548, 549. Same as NURS 654 in ICMSN.

555. NURSE LEADERSHIP AND ADMINISTRATION FIELD STUDY II. (1, 5, 2). Continued development of the nurse leader role in a practicum experience under the guidance of faculty-supervised preceptors. Prereq: NURS 554. Pre/coreq: NURS 556, 558. Same as NURS 655 in ICMSN.

556. LEGAL AND REGULATORY ISSUES IN NURSING ADMINISTRATION. (3, 0, 3). Exploration of laws, legislative processes, accrediting agencies, and public policies which influence decision-making and operation of health care systems. Prereq: NURS 500, 502. Same as NURS 656 in ICMSN.

558. FISCAL AND ECONOMIC PRINCIPLES FOR NURSE LEADERS. (4, 0, 4). Examination and application of principles of budget preparation, presentation, analysis, and management in health care organizations. Introduction to applied health care economics. Prereq: NURS 500, 502. Same as NURS 657 in ICMSN.

559. NURSE LEADERSHIP AND ADMINISTRATION INTERNSHIP. (0, 15, 3). Continued nurse executive/administrative role development under the guidance of faculty-supervised preceptors. Focus is on application of leadership, management, economic, quality, and change principles in a real-world experience. Prereq: NURS 555. Same as NURS 669 in ICMSN.

576. ADVANCED PRACTICE NURSING: ADULT HEALTH I. (3, 8, 4). Provide students (CNS and NP) with content to develop entry-level competencies for adult health practitioners including care of adolescents and young, middle, and older adults. Focus on selected units of study including introduction to roles and scope of advanced practice in adult health nursing; health promotion/disease prevention; disorders of eye, ear, nose and throat; common communicable diseases; respiratory and cardiovascular disorders; and women's health. Prereq: Nursing core courses. Same as NURS 676 at MSU.

577. ADVANCED PRACTICE NURSING: ADULT HEALTH II. (3, 16, 5). Provide Students (CNS and NP) with content to develop entry-level competencies for adult health practitioners including care of adolescents and young, middle, and older adults. Focus on selected units of study including genitourinary; gastrointestinal; neurological; musculoskeletal; hematological; endocrine; integument; and psychological disorders. Prereq: NURS 576. Same as NURS 677 at MSU.

578. ADVANCED PRACTICE NURSING PRACTICUM. (3, 16, 5). Focus of online seminar discussion on professional role development and continued development of advanced clinical competencies. Prereq: NURS 577 or 543. Same as NURS 678 at MSU.

595. FOCUSED SCHOLARLY PROJECT. (3, 0, 3). Independent project supervised by a graduate faculty member. Creatively employs scientific inquiry to systematically advance the practice, teaching, or research of nursing. Emphasis on a project that has tangible application to the practice setting. Prereq: NURS 502. Restr: Approval by faculty of record must be obtained prior to registration for the course. Grades: S, U, or W. Same as NURS 695 in ICMSN.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

PETROLEUM ENGINEERING (PETE 079)

480(G). PETROLEUM ENGINEERING COMPUTER APPLICATIONS. (3, 0, 3). Computer solutions of petroleum engineering problems. Problem programming and execution. Prereq: CMPS 208. Restr: Permission of department head and instructor required.

481(G). PETROPHYSICS AND FORMATION EVALUATION. (3, 0, 3). Fundamental principles of the use of borehole surveys to evaluate the formation characteristics and fluid contents of porous strata. Prereq: ENGR 201, PETE 491, 493. Coreq: PETE 392, 483.

482(G). IMPROVED PETROLEUM RECOVERY PROCESSES. (3, 0, 3). Theoretical and practical aspects of processes to increase the recovery of oil and gas in petroleum reservoirs. A basic coverage of water flooding, thermal recovery and miscible and immiscible displacement techniques. Prereq: PETE 486, 488, 494(G), 496. Coreq: PETE 478.

483(G). PETROPHYSICS AND FORMATION EVALUATION LABORATORY. (0, 3, 1). Interpretation of borehole surveys to determine formation character, fluid content, and production potential. Coreq: PETE 481(G).

484(G). WELL PLANNING & CONTROL. (3, 0, 3). Drilling, well planning and control, theory and practice. Drilling program design and technology and pore pressure, fracture gradients, drilling optimization, and well control considerations. Prereq: PETE 392, 394, 481, 483(G).

489(G). WELL COMPLETION. (3, 0, 3). Design of tubing, connections, well geometry, reservoir entry, performance, completion fluids, acidizing, fracturing, and Frac-Packing for single or multiple completions, and fundamentals of sand control. Prereq: PETE 484, 486. Restr: If prerequisites are not met permission of instructor required.

494(G). RESERVOIR ENGINEERING. (3, 0, 3). Oil and gas reservoirs and reservoir mechanics. Reservoir rock-fluid systems are analyzed, principles of reservoir behavior and control are studied. Theories of fluid flow through porous media presented and techniques of predicting reservoir performance outlined and studied. Prereq: ENGR 305, PETE 392, 394, 481(G), 483(G). Coreq: PETE 496.

498(G). OFFSHORE DEVELOPMENT PRACTICES. (3, 0, 3). Includes spacing and field development problems for optimum economic production of offshore reserves. Prereq: PETE 486, 491, 494(G).

499(G). OIL AND GAS LAW CONSERVATION AND ECONOMICS. (3, 0, 3). Basic principles of conservation, utilization, and economics in the development and depletion of oil and gas properties. Environmental considerations in oil and gas drilling and producing operations. Restr: Permission of department head required.

500. PETROLEUM ENGINEERING RESEARCH SEMINAR. (1, 0, 1). Written and oral presentation on research or thesis topics; participation in all presentations made by other students, visiting lecturers and

faculty members. Required of all students for graduation. Prerequisites: Two prior informal presentations, permission of student's thesis committee chairman and department head.

501. FORMATION DAMAGE CONTROL. (3, 0, 3). Fundamentals of formation damage mechanisms, damage characterization and control, basic clay minerals engineering, control of screen entrance velocity, well treatment design, and well flow back analysis. Prereq: PETE 486, 489(G). Restr: If prerequisites not met permission of instructor required.

502. HORIZONTAL WELL ENGINEERING. (3, 0, 3). Environmental remediation with horizontal wells, reservoir or acquirer fluid flow to horizontal wells, modern downhole assemblies and production/injection/completion of horizontal wells. Prereq: PETE 489(G), 491, 494(G), 496. Restr: If prerequisites not met permission of instructor required.

578. ADVANCED PRINCIPLES OF NATURAL GAS. (3, 0, 3). Covers the theory and practice involving natural gas from its initial location in the reservoir to its final destination, including the design of an optimum development plan for a natural gas field. Unconventional gas sources also covered. Prereq: PETE 478, 494(G).

586. SECONDARY RECOVERY PROCESSES. (3, 0, 3). Theory of multiphase flow, miscible and immiscible displacement mechanisms in porous media. Analysis of various improved recovery methods such as water flooding, gas flooding on digital computer. Prereq: PETE 482(G).

587. NATURAL WATER DRIVE SYSTEMS. (3, 0, 3). Theory of natural aquifer expansion and water encroachment in porous media using classical influence functions for finite and infinite aquifer of linear and radial extent. Numerical simulation of water encroachment in arbitrary shaped patterns with irregular well distributions. Prereq: PETE 494(G), 478.

590. DRILLING OPTIMIZATION TECHNIQUES. (3, 0, 3). Methods and techniques to optimize drilling hydraulics, bit weight and rotary speed, penetration rates, and minimize drilling costs. Prereq: PETE 491.

591. TRANSIENT PRESSURE BEHAVIOR. (3, 0, 3). Mathematical development and analysis of transient behavior in well and reservoir systems. Factors influencing skin effect evaluation in heterogeneous porous media. Effect of horizontal and vertical factors, anisotropy and shale barriers on reservoir limits tests. Prereq: PETE 494(G), 478.

592. ADVANCED PETROLEUM PRODUCTION SYSTEM AND OPTIMIZATION. (3, 0, 3). Principles of the development and operation of petroleum production system. Considers the combined behavior of the reservoir, the producing strings, the surface equipment, and pipeline system. Optimization of such a production system for various schedules. Prereq: PETE 486, 494(G).

593. ADVANCED GEOLOGIC WELL LOG ANALYSIS. (3, 0, 3). Study of advanced well logging methods and techniques for qualitative and quantitative use of well logs as geological mapping tools in hydrocarbon and mineral exploration. Prereq: PETE 481(G) or GEOL 410(G).

595. THEORY AND TECHNIQUES OF MATHEMATICAL RESERVOIR SIMULATION. (3, 0, 3). Comprehensive coverage of the mathematical reservoir simulator with special emphasis on the practical application of theoretical techniques on modern-day computers. Prereq: PETE 494(G) and MATH 350 or 455(G) and a working knowledge of FORTRAN or permission of the instructor.

598. SPECIAL TOPICS. (3, 0, 3). Advanced level study of special topics in petroleum engineering. May be repeated for credit. Prereq: PETE 486, 491. Restr: Permission of department head and instructor required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

PHILOSOPHY (PHIL 081)

428(G). SEMINAR IN THE HISTORY OF PHILOSOPHY. (3, 0, 3). Content varies. May be repeated for credit. Alternate subtitles will appear on students' transcripts. Examination of a philosophical movement, period, issue, or philosopher. Prereq: Six hours of philosophy.

441(G). THEORY OF KNOWLEDGE. (3, 0, 3). Critical examination of the nature and limits of knowledge. Prereq: Six credits of philosophy.

448(G). SEMINAR IN MIND AND COGNITION. (3, 0, 3). Specific problems related to philosophical attempts to understand the nature of the human mind and/or human cognitive ability. Prereq: PHIL 342, 349, 441 or permission of instructor required.

483(G). PHILOSOPHY IN LITERATURE. (3, 0, 3). Basic philosophical problems in great works of literature. Prereq: Three hours of philosophy or permission of instructor.

533. ADVANCED LOGICAL TOPICS. (3, 0, 3). Content varies. May be repeated for credit. In-depth study of a selected logical topic such as non-monotonic logics, temporal logics, modal logics, entailment logics, or combinatorial logic. Prereq: PHIL 361. Restr: If prerequisite not met permission of instructor required.

541. PHILOSOPHY OF MIND. (3, 0, 3). Central themes pertaining to cognitive science.

542. PHILOSOPHY OF SCIENCE (3, 0, 3). Epistemology and ontology of science and its branches.

597-598. INDIVIDUAL STUDY I, II. (1-3 ea.). Restr: Permission of department head and instructor required.

PHYSICS (PHYS 083)

405(G). THERMODYNAMICS. (3, 0, 3). Development of the laws of classical thermodynamics from the statistical mechanics of atomic systems. Applications of classical thermodynamics and quantum statistical mechanics. Prereq: PHYS 202.

411(G). COMPUTATIONAL PHYSICS LABORATORY. (2, 2, 3). Exploration of advanced problems in physics using multimedia software and utilization of Internet resources. Prereq: PHYS 301, 323.

420(G). PHYSICAL ACOUSTICS. (3, 0, 3). Introduction to physical phenomena related to the propagation of acoustic waves through matter. Topics include vibrational motion, plane waves, reflection and refraction at interfaces, spherical waves, absorption of sound, and applications of acoustics. Prereq: PHYS 202 or 208; MATH 302 or permission of instructor.

423(G). ADVANCED MECHANICS. (3, 0, 3). Lagrangian and Hamiltonian dynamics of mechanical systems. Prereq: PHYS 323.

424(G). ADVANCED ELECTROMAGNETIC THEORY. (3, 0, 3). Maxwell's equations, electromagnetic waves, and the Special Theory of Relativity. Prereq: PHYS 324.

437(G). QUANTUM MECHANICS. (3, 0, 3). Schrodinger Theory applied to simple and multiparticle systems, perturbation and collision theories. Prereq: PHYS 301; MATH 350.

440(G). NUCLEAR PHYSICS. (3, 0, 3). Nuclear properties, models, reactions and instrumentation. Nucleon-nucleon forces, radioactive decay, radiation safety, and high energy physics. Prereq: PHYS 202, MATH 350.

450(G). SOLID STATE PHYSICS. (3, 0, 3). Crystal structure, crystal diffraction, lattice vibrations, electrons in metals and semiconductors, other physical phenomena in solids. Prereq: PHYS 202, MATH 350.

471(G). PHYSICS FOR SECONDARY TEACHERS I. (3, 0, 3). Limited to and designed for the practicing secondary science teacher. Emphasis on the further development of the teacher's understanding of physical phenomena and the demonstration techniques of presenting such phenomena.

472(G). PHYSICS FOR SECONDARY TEACHERS II. (3, 0, 3). Limited to and designed for the practicing secondary science teacher. Emphasis on the further development of the teacher's understanding of physical phenomena and the demonstration techniques of presenting such phenomena. Prereq: PHYS 471(G).

473(G). PHYSICS FOR ELEMENTARY TEACHERS. (3, 0, 3). Limited to and designed for the practicing elementary school teacher. Emphasis in this lecture/demonstration course is on the enhancement of the teacher's understanding of basic physical principles and their relationship to the experiences of typical elementary students.

501. CLASSICAL MECHANICS. (3, 0, 3). Lagrangian and Hamiltonian dynamics, two-body central force problem, rigid bodies, Hamilton-Jacobi theory.

502. QUANTUM THEORY. (3, 0, 3). Schrodinger theory, angular momenta, identical particles and atoms, time-independent and time-dependent perturbation theory, interaction of radiation with atoms and collision theory.

503. STATISTICAL MECHANICS. (3, 0, 3). Survey of ensembles with applications of physical problems with emphasis on the gaseous state.

504. ELECTROMAGNETIC THEORY. (3, 0, 3). Introduction to advanced electromagnetic theory with special emphasis on static and stationary charge systems, Maxwell's equations.

521. TOPICS IN APPLIED PHYSICS. (3, 0, 3). Content varies. May be repeated for credit. Subtitles will appear on students' transcripts.

523. TOPICS IN COMPUTATIONAL PHYSICS. (3, 0, 3). Content varies. May be repeated for credit. Subtitles will appear on students' transcripts.

571. PHYSICS FOR SECONDARY TEACHERS III. (1-6). Pre-service and in-service secondary school physics teachers. Includes the presentation of innovations for teaching physics in a high school setting. Cannot be taken for more than 6 credits.

591-592, 595-596. SEMINAR I, II, III, IV. (1, 0, 1 ea.).

594. RESEARCH. (3-6). To be taken by non-thesis option master's students only. Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Grades S, U, W.

597, 598. DIRECTED INDIVIDUAL STUDY I, II. (3 ea.).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

POLITICAL SCIENCE (POLS 085)

417(G). SOUTHERN POLITICS. (3, 0, 3). Politics in the southern U.S. with emphasis on continuity and change.

425(G). MIDDLE EASTERN POLITICS. (3, 0, 3). Selected general problems in developing areas. Focus on issues in the Middle East and North Africa. Survey of individual political systems. Formerly POLS 327.

442(G). BUREAUCRATIC POLITICS. (3, 0, 3). Public organizations as institutions of U.S. government. Emphasis on the operational environment, organizational dynamics, and management as principal components in the administration of law-based government activities.

452(G). ENVIRONMENTAL POLICY. (3, 0, 3). U.S. environmental policy focusing on formulation, legitimation, implementation, and evaluation. Formerly POLS 402(G).

457(G). PUBLIC POLICY ANALYSIS. (3, 0, 3). Formal and informal processes of the development, administration, and evaluation of public policies. Formerly POLS 487(G).

462(G). INTERNATIONAL POLITICAL ECONOMY. (3, 0, 3). Studies the interaction between international political conflict, cooperation, and global economic transactions.

467(G). ETHICS AND INTERNATIONAL POLITICS. (3, 0, 3). Examination of the various ethical and theoretical foundations of international relations, (e.g., classical, Christian, and/or modern).

470(G). POLITICAL PHILOSOPHY: MAJOR THEMES. (3, 0, 3). Enduring issues, such as the theological-political problem, moral virtue, relativism, and natural right and law. Formerly POLS 371.

475(G). AMERICAN POLITICAL THOUGHT. (3, 0, 3). Political philosophy and ideology from colonial times to the beginning of the twentieth century. Formerly POLS 450(G).

483(G). CIVIL LIBERTIES. (3, 0, 3). Philosophy and development of civil liberties and civil rights in the United States Concentration on the interpretation of constitutional guarantees by the Supreme Court.

497(G)-498(G). SPECIAL PROJECTS I, II. (3, 0, 3 ea.). Study and research in areas not covered by existing courses.

510. SEMINAR IN COMPARATIVE GOVERNMENT. (3, 0, 3).

520. SEMINAR IN AMERICAN GOVERNMENT. (3, 0, 3).

521. ENVIRONMENTAL LAW. (3, 0, 3). Major federal and state environmental statutes, cases, and administrative regulations and their applications. Same as BLAW 521.

524. TELECOMMUNICATIONS POLICY. (3, 0, 3). Evolution and content of U.S. Telecommunications policy and the processes that shape those policies.

530. SEMINAR IN INTERNATIONAL RELATIONS. (3, 0, 3).

540. SEMINAR IN POLITICAL PHILOSOPHY. (3, 0, 3).

550. SEMINAR IN PUBLIC ADMINISTRATION. (3, 0, 3).

560. SEMINAR IN STATE AND LOCAL GOVERNMENT. (3, 0, 3).

590. RESEARCH WRITING. (3, 0, 3). Individual writing course for non-thesis students who must submit an article-length paper demonstrating an ability to do professional research.

597-598. DIRECTED INDIVIDUAL STUDIES. (3, 0, 3 ea.). Students pursue in depth advanced projects on the graduate level.

PSYCHOLOGY (PSYC 087)

425(G). PHYSIOLOGICAL PSYCHOLOGY I. (3, 0, 3). Structure and function of the physiological mechanisms underlying behavior as revealed by neuroanatomy and neurochemistry. Mechanisms involved in sensation, movement, states of consciousness, and motivation. Laboratory exercises include neuroanatomical localization. Prereq: BIOL 122, six hours of psychology or permission of instructor required.

426(G). PHYSIOLOGICAL PSYCHOLOGY II. (3, 0, 3). Behavior aspects governed by physiological mechanisms. Motivational behaviors, emotions, learning and memory, and psychopathology. Prereq: PSYC 425(G).

501. SCHOOL PSYCHOLOGY. (3, 0, 3). Study of the school psychologist's role in school and community situations.

502. THEORIES AND TECHNIQUES IN COUNSELING. (3, 0, 3). Prereq: EDFL 503 or permission of instructor required.

509. GROUP PROCESSES IN COUNSELING. (3, 0, 3). Dynamics underlying interaction among members of a group; problems amenable to help through group processes, and techniques of working with different kinds of groups. Prereq: EDFL 503.

510. ETHICAL AND PROFESSIONAL STANDARDS IN PSYCHOLOGY. (3, 0, 3). Ethical and professional issues related to research and practice in psychology and application of principles in solving ethical dilemmas based on the American Psychological Association standards; including membership in professional organizations and CV development.

511. CONCEPTUAL AND PHILOSOPHICAL ISSUES IN PSYCHOLOGY. (3, 0, 3). Study of the historical and current trends which have formed the science of psychology.

512. PERCEPTION. (3, 0, 3). Study of individual sense modalities from a physiological/ psychological perspective; perceptual learning, constancy, illusions, language and the effect of organismic variables on perception. Prereq: PSYC 425(G).

513. QUANTITATIVE MODELS IN PSYCHOLOGY. (3, 0, 3). Introduction to model building in psychological theory and research, including psychometric, structural equation, and regression models.

515. ADVANCED PSYCHOLOGICAL RESEARCH DESIGN. (3, 0, 3). Specific research design in motivation, learning, perception, physiology, psychopharmacology, personality (normal and abnormal), and test development and evaluation. Prereq: PSYC 315.

516. HUMAN LEARNING. (3, 0, 3). Introduction to research in learning, memory, and cognition.

517. ADVANCED THEORIES OF PERSONALITY. (3, 0, 3). Intensive examination of the theories of representative psychoanalytic, behavioristic, and humanistic personality theorists.

530. COGNITIVE BEHAVIORAL THERAPY. (3, 0, 3). Theoretical underpinnings of cognitive behavioral therapy including case conceptualization in treatment planning and application of treatment interventions in various client populations.

533. ADVANCED PSYCHOPATHOLOGY. (3, 0, 3). Survey of current and historical research and theories involving diagnosis and treatment of behavioral disorders. Emphasis on etiology of neurotic, psychotic and character disorders. Prereq: PSYC 445.

534. ADVANCED DEVELOPMENTAL PSYCHOLOGY. (3, 0, 3). Study of development throughout the life cycle; an in-depth investigation of various theories and processes of development. Prereq: PSYC 455.

535. INTRODUCTION TO PSYCHOTHERAPY. (3, 0, 3). Introduction to historical and current theories of psychotherapy and their application to clinic practice. Individual and group approaches. Prereq: PSYC 340, 445.

536. ABILITIES TESTING. (3, 0, 3). Test theory, achievement tests, aptitude tests, intelligence tests.

538. ADVANCED SOCIAL PSYCHOLOGY. (3, 0, 3). Examination of social psychological theories and research on social cognition, social influence, and social interaction.

590. SEMINAR IN PSYCHOLOGY. (3).

591. SUPERVISED TEACHING. (1, 0, 1). Introduction to professional practices, ethics, and teaching techniques at the college level.

595. FIELD PRACTICUM. (3-12). Practical psychological experience under supervision in selected agencies.

597. DIRECTED RESEARCH IN PSYCHOLOGY. (1-3).

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

QUANTITATIVE METHODS (QMET 080)

505. FOUNDATIONS OF STATISTICAL ANALYSIS FOR BUSINESS DECISIONS. (3, 0, 3). Fundamentals of the use of statistics for improving business decisions under conditions of uncertainty. Topics covered include sampling distributions, probability concepts, statistical concepts and inferences, tests of significance, correlations and regression, forecasting and analysis of variance. Computer assisted quantitative analysis will be used and previous course in calculus is required.

READING (READ 088)

495(G)-496(G). SPECIAL PROJECTS IN READING. (1-3 ea.). Restr: Appropriate standing and permission of department required.

Prerequisites for admission to graduate level reading courses: A valid teacher's certificate and eighteen semester hours of professional education.

510. READING AND STUDY METHODS FOR CONTENT AREA TEACHERS. (3, 0, 3). Identification and evaluation of effective reading skills, habits, and study-strategies for teaching content-area subjects. Restr: Teaching certification and READ 520 required.

520. DEVELOPMENTAL READING. (3, 0, 3). Methods, materials, learning and teaching problems with emphasis on evidence-based methods for teaching reading. Restr: Teaching certification required.

523. DIAGNOSIS OF READING DISABILITIES. (3, 0, 3). Causes of reading disabilities, observation and interview techniques, standardized and informal diagnostic testing. Restr: Teaching certification and READ 520 required.

524. CORRECTION OF READING DISABILITIES. (3, 0, 3). Theory of remedial techniques and procedures, combined with a supervised practicum. Restr: Teaching certification and READ 523 required.

597-598. DIRECTED INDIVIDUAL STUDY. (3 ea.). Prereq: Six graduate hours in reading, and departmental approval.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

RECREATION (RCEA 049)

405(G). THERAPEUTIC RECREATION I. (3, 0, 3). Physiological, psychological and social characteristics of disabled individuals; assessment, programming, implementation and evaluation of leisure functioning; prescriptive programming and adaptation of activities for the disabled. Prereq: RCEA 250.

406(G). THERAPEUTIC RECREATION II. (3, 0, 3). Rehabilitation service delivery systems; role of government; role of rehabilitation team members in clinical and community facilities; therapeutic recreation in the rehabilitation process. Prereq: RCEA 405(G).

429(G). ORGANIZATION AND ADMINISTRATION OF RECREATION PROGRAMS. (3, 0, 3). Emphasizes the study of factors underlying organization, administration and supervision essential to successful program operation and the promotion of school and community recreation programs.

435(G) AGING AND LEISURE (3, 0, 3). Leisure programming techniques, concepts, practices, trends, issues, and research in aging.

497(G)-498(G). SPECIAL PROJECTS. (1-3 ea.). Content varies.

RENEWABLE RESOURCES (RRES 003)

401(G). AGRIBUSINESS FINANCE. (3, 0, 3). Structure, functions and sources of credit in agribusiness; analysis of profitability and types of credit problems.

402(G). FOOD AND AGRICULTURE PUBLIC POLICY. (3, 0, 3). Analysis of food, agricultural and associated environmental policies, programs and regulations.

422(G). ENVIRONMENTAL SCIENCE PROJECTS. (3, 0, 3). Career education, innovations and trends, including off-farm and occupational experience programs. Restr: Senior classification; permission of department head if taken for graduate credit.

423(G). FOODBORNE DISEASE CONTROL. (3, 0, 3). Study of the human diseases transmitted by food and the industry practices used to prevent foodborne illness.

426(G). HISTORICAL DEVELOPMENT. (3, 0, 3). Survey of the history, principles and philosophy of Agricultural Education and its relationship to the total educational program. May not be substituted for required Agricultural Education courses. Restr: Senior standing, permission of department head if taken for graduate credit.

428(G). ENVIRONMENTAL PHYSIOLOGY OF DOMESTIC ANIMALS. (3, 0, 3). Physiology of organ systems and influences of environmental factors on physiological processes. Prereq: RRES 220.

433(G). NUTRIENTS AND ANIMAL METABOLISM. (3, 0, 3). Biochemical and physiological bases for nutrient requirements for growth, maintenance, and production in monogastrics and ruminants. Prereq: RRES 220.

440(G). SURVEY OF BIOTECHNOLOGY. (3, 0, 3). Improving the production of food and fiber with the genetic enhancement of commercially important plants and animals.

443(G). ANIMAL ENDOCRINOLOGY. (3, 0, 3). Biochemistry, physiology and interrelationships of hormones and target tissues of endocrine glands. Prereq: RRES 220.

445(G). COASTAL SCIENCES. (3, 0, 3). Management of coastal aquatic ecosystems; emphasis on interactions with terrestrial and atmospheric systems; hydraulic and ecological modeling; and coastal restoration. Prereq: RRES 100, 150, 151, and 285. Restr: Permission of instructor required.

448(G). ETIOLOGY OF ANIMAL DISEASES. (3, 0, 3). Causes and prevention of animal diseases.

455(G). COLLOQUIUM. (1, 0, 1). Current topics.

457(G). DIRECTED STUDIES IN RENEWABLE RESOURCES. (3). May be repeated for a maximum of 6 hours. Independent research or special projects. Restr: Permission of instructor required.

480(G). INTEGRATED PEST MANAGEMENT. (2, 2, 3). Strategies for developing a pest management program incorporating biological, cultural, mechanical, and chemical practices for renewable resources. Prereq: RRES 150.

486(G). WATER QUALITY. (3, 2, 4). Design of data collection and analysis of chemical and biological properties necessary to support the planning process.

488(G). FIELD STUDIES IN RENEWABLE RESOURCES. (1). May be repeated for credit.

490(G). ENVIRONMENTAL PEDOLOGY. (3, 0, 3). Soil-solute interactions occurring as a result of natural and human activities. Prereq: RRES 285 or permission of instructor required.

493(G). SOIL-PLANT RELATIONSHIPS. (3, 0, 3). Chemical, biological, and physical properties of soils in relation to nutrient cycling and plant growth, including evaluation of soil supplements. Prereq: RRES 285 or permission of instructor required.

495(G). SOIL GENESIS AND SURVEY. (3, 0, 3). Formation, distribution, and classification of soils as natural bodies. Restr: Non-majors-Permission of instructor required.

498(G). SOIL BIOLOGY. (3, 0, 3). Role of plants, animals, and microbes in soil generation and the biochemical transformations in soil ecosystems; required for plant nutrition. Prereq: RRES 285 or permission of instructor required.

580. FATE OF POLLUTANTS IN SOILS AND NATURAL WATERS. (3, 0, 3). Thermodynamics and surface reactions affecting the presence, distribution, and fate of pollutants. Prereq: CHEM 101, 240; RRES 285.

SOCIOLOGY (SOCI 092)

408(G). ADVANCED SOCIAL RESEARCH. (3, 0, 3). Advanced social research course emphasizing development and implementation of research designs and actual collection, coding, analysis and interpretation of data. Completion of a research project to include data manipulation and hypothesis testing by computer is required. Restr: SOCI 308 and permission of instructor required.

411(G). SOCIOLOGICAL THEORY. (3, 0, 3). Conceptual analysis of sociological theory from Comte to contemporary theorists. Prereq: SOCI 100.

420(G). SOCIAL INTERACTION. (3, 0, 3). Sociological analysis of symbolic interaction and exchange patterns within informal situations.

430(G). MEDICAL SOCIOLOGY. (3, 0, 3). Study of the social organization of health care systems and of the social factors related to health and illness. Prereq: SOCI 100 and at least junior standing.

452(G). SOCIAL STRATIFICATION. (3, 0, 3). Examination of the dynamics of inequality, including types of inequality and mechanisms of social mobility. Prereq: SOCI 100.

454(G). GENDER ACROSS CULTURES. (3, 0, 3). Application of social definitions of appropriate and inappropriate thought, feeling, behavior, and appearance on various gender categories. Emphasis on multiple cultures and contexts. {Same as ANTH 454(G)}. Prereq: SOCI 100. Restr: If prerequisite not met permission of instructor required.

471(G). RURAL AND URBAN SOCIOLOGY. (3, 0, 3). Study of rural and urban social organization/social processes. Prereq: SOCI 100.

480(G). DEATH AND DYING. (3, 0, 3). Examines individual and collective death-related attitudes, expectations, and behaviors with emphasis on the social implications of death and dying. Prereq: SOCI 100. Restr: Permission of instructor for all non-Sociology majors required.

494(G). SEMINAR IN SOCIOLOGY. (3, 0, 3). Restr: Permission of instructor required.

497(G)-498(G). SPECIAL PROJECTS IN SOCIOLOGY I, II. (3 ea.). Restr: Permission of department head required.

530. SEMINAR IN MEDICAL SOCIOLOGY. (3, 0, 3). Survey of dominant issues in medical sociology. Restr: Permission of instructor required.

SPANISH (SPAN 094)

451(G). TOPICS IN HISPANIC CULTURE. (3, 0, 3). Content varies. May be repeated for credit with permission of department head or graduate coordinator. Prereq: SPAN 340. Restr: If prerequisite not met permission of instructor required.

455(G). HISPANIC CINEMA. (3, 0, 3). Screenings, discussion, research, and writing on themes, movements, or directors in Hispanic cinema. Prereq: SPAN 340. Restr: If prerequisite not met permission of instructor required.

462(G). LINGUISTIC STUDIES. (3, 0, 3). Content varies. May be repeated for credit with permission of department head or graduate coordinator. Morphosyntax, dialectology, applied linguistics, theories of second language acquisition, or evolution of the Spanish language. Prereq: SPAN 340. Restr: If prerequisite not met permission of instructor required.

480(G) TOPICS IN SPANISH AMERICAN LITERATURE. (3, 0, 3). Prereq: SPAN 340. Restr: If prerequisite not met permission of instructor required.

491(G). TOPICS IN PENINSULAR SPANISH LITERATURE. (3, 0, 3). Content varies. May be repeated for credit with permission of department head or graduate coordinator. Reading, discussion, research, and writing on themes, movements, or authors in Spanish literature. Prereq: SPAN 340. Restr: If prerequisite not met permission of instructor required.

492(G). TOPICS IN HISPANIC LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Reading, discussion, research and writing on themes, movements, or authors in the literature of Spain, Spanish American, and/or the Spanish speaking United States. Prereq: SPAN 340. Restr: Permission of department head or graduate coordinator required.

501. PROFESSIONAL PREPARATION FOR COLLEGE TEACHERS. (3, 0, 3). Practical application of teaching methodology and supervision of foreign language teaching.

502. LITERARY OR LINGUISTIC STUDY. (3, 0, 3). Content varies. May be repeated for credit. Restr: Permission of department head or graduate coordinator required.

512. READINGS IN OLD SPANISH. (3, 0, 3).

517. GOLDEN AGE LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Restr: Permission of department head or graduate coordinator required.

580. TOPICS IN SPANISH AMERICAN LITERATURE. (3, 0, 3). Content varies. May be repeated for credit. Restr: Permission of department head or graduate coordinator required.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

SPECIAL EDUCATION (SPED 095)

404(G). BEHAVIORAL APPROACHES TO MANAGING STUDENTS WITH MILD/MODERATE DISABILITIES. (3, 0, 3). Theoretical principles and techniques of behavioral management of students with mild/moderate disabilities. Prereq: SPED 300 or 391 or 502.

405(G). DEVELOPMENTAL FOUNDATIONS EARLY CHILDHOOD EDUCATION AND EARLY INTERVENTION. (3, 0, 3). Characteristics, identification and development of programming for early intervention. Prereq: SPED 300 or 491 or 502. Same as EDCI 405(G).

406(G). PHYSICAL AND MEDICAL MANAGEMENT IN THE CLASSROOM. (3, 0, 3). Etiology, prognosis, therapeutic approaches, and classroom management of acquired and congenital childhood diseases and medical conditions. Prereq: SPED 300 or 391 or 502.

407(G). UNDERSTANDING AND FACILITATING PLAY. (3, 0, 3). Theories of play and its relationship to all aspects of the early childhood learning experience. Instruction and practice in skills to provide a developmentally appropriate play environment for children with and without special needs in a variety of learning environments. Prereq: SPED 300 or SPED 391 and PSYC 311. Same as EDCI 407.

413(G). METHODS OF TEACHING THE MALADJUSTED. (3, 0, 3). Methods and materials for teaching emotionally maladjusted children, with emphasis on conducting special classes for the maladjusted. Prereq: SPED 300, 412(G).

414(G). INTERDISCIPLINARY AND INTERAGENCY TEAMING. (3, 0, 3). Policy implementation, effective collaboration and service coordination for children with disabilities. Prereq: SPED 300, 491 or 502.

420(G). EARLY INTERVENTION METHODS, CURRICULUM AND READING. (3, 0, 3). Organization and implementation of programs for early intervention for children with exceptional learning needs including early literacy. Prereq: SPED 405(G) and either SPED 300, 391, or 502.

422(G). WORKING WITH FAMILIES OF YOUNG CHILDREN. (3, 0, 3). Family systems and life cycles; family dynamics and skills for working with families of young children. Prereq: SPED 300, 391, or 502.

423(G). ASSESSMENT OF YOUNG CHILDREN. (3, 0, 3). Child development theory, assessment, and interpretation of data about young children with exceptionalities. Prereq: SPED 300, 405(G).

456(G). TRANSITION IN MILD/MODERATE EDUCATION (3, 0, 3). Legal requirements and program planning for transitional issues. Prereq: SPED 300 or 391 or 502.

475(G). DEVELOPING CREATIVITY IN THE CLASSROOM. (3, 0, 3). Various conceptions of creativity. Methods for eliciting creative thinking from students, application of creative problem solving strategies, and exploration of personal creativity. Same as EDCI 475(G).

492(G). CLASSROOM MANAGEMENT OF STUDENTS WITH DISABILITIES. (3, 0, 3). Theories of behavioral management legal requirements of discipline under IDEA; behavioral analysis and intervention plans; and methods for creating a positive learning environment. Prereq: SPED 300 or 391 or 502.

493(G). METHODS AND MATERIALS FOR STUDENTS WITH MILD/MODERATE DISABILITIES. (3, 0, 3). Development of Individualized Education Programs to meet federal and state requirements; design of teaching strategies for positive learning experiences in general curriculum. Prereq: SPED 300 or 391 or 502.

494(G). ASSESSMENT AND EVALUATION OF STUDENTS WITH MILD/MODERATE DISABILITIES. (2, 2, 3). Diagnostic and prescriptive skills to effectively assess and teach students with learning difficulties in various instructional environments. Prereq: SPED 300 or 391 or 502, and SPED 493.

495(G)-496(G). SPECIAL PROJECTS IN SPECIAL EDUCATION. (1-3 ea.). May be repeated for credit. Alternate subtitles will appear on student's transcript. Intensive examination of various topics in special education.

497(G). SPECIAL TOPICS IN GIFTED EDUCATION. (3, 0, 3). Contents vary. May be repeated under varied titles for graduate credit. In-depth study of specific areas in the education of the gifted student. May be pursued as a directed study. Restr: Permission of program coordinator required.

500. SOCIAL-EMOTIONAL NEEDS OF THE GIFTED. (3, 0, 3). Affective needs of academically and creatively talented students. Emphasis on issues which are functions of these abilities and societal perceptions and expectations of such students. Same as EDCI 500.

502. EDUCATING THE EXCEPTIONAL CHILD. (3, 0, 3). Learning differences and collaborative instructional models in inclusive settings.

503. DEVELOPING CREATIVITY IN THE CLASSROOM. (3, 0, 3). Various conceptions of creativity. Methods for eliciting creative thinking from students, application of creative problem solving strategies, and exploration of personal creativity. Same as EDCI 503.

505. CURRICULUM DEVELOPMENT AND VOCATIONAL PLANNING FOR EXCEPTIONAL CHILDREN. (3, 0, 3). Factors in program design for career and vocational curriculum development are explored. Attention is given to community training centers, placement resources, assessment, and evaluation, all emphasizing school and parent involvement.

507. CLINICAL EDUCATION DIAGNOSIS. (3, 6, 6). Evaluation of exceptional children through administration and interpretation of educational tests, other assessment techniques, and behavioral/academic interventions. Lecture and practicum/clinical experiences. Prereq: SPED 539.

508. SEMINAR IN SPECIAL EDUCATION. (3, 0, 3). Contemporary special education problems and issues.

509. INSTRUCTIONAL STRATEGIES FOR TEACHING THE GIFTED. (3, 0, 3). Creativity, leadership development, futuristics, group dynamics, and other strategies for differentiating instruction. Prereq: EDCI 506 (formerly EDCI 474G). Restr: If prerequisite not met permission of program coordinator required. Formerly SPED 511.

510. CURRICULUM DEVELOPMENT FOR THE GIFTED. (3, 0, 3). Theoretical models, program development and evaluation, and current trends in planning of curriculum for gifted students. Prereq: six hours in gifted education. Restr: If prerequisite not met permission of program coordinator required.

513. PRACTICUM IN GIFTED EDUCATION. (6). Prereq: Student teaching or certification in elementary or secondary education and SPED 509. Restr: If prerequisites not met permission of program coordinator required; pre-registration with program coordinator at beginning of previous semester.

518. ADVANCED METHODS OF TEACHING BASIC SUBJECTS TO MILD/ MODERATE. (3, 1, 3). Specific methods of instruction for elementary students: MR, LD, BD, and OH. Prereq: SPED 418.

534. LEGAL ISSUES IN SPECIAL EDUCATION. (3, 0, 3). Interpretation and application of special education laws, regulations, and relevant case law. Prereq: SPED 456(G), 492(G), and 494(G).

535. CONSULTATION AND COLLABORATION IN SPECIAL EDUCATION. (3, 0, 3). Needs and competencies for teachers and educational diagnosticians in the inclusive classroom. Prereq: SPED 300, 491, or 502.

539. ADVANCED STUDIES IN ASSESSMENT. (3, 1, 3). Problems, issues, regulations, and practices in special education assessment. Prereq: SPED 456(G), 492(G), and 494(G).

540. TECHNOLOGY ISSUES IN SPECIAL EDUCATION. (3, 0, 3). Assessment and planning of special education technology including assistive and adaptive technology and augmentative communication devices. Prereq: SPED certification, SPED 534, 535, and 539.

541. CHARACTERISTICS OF STUDENTS WITH BEHAVIOR AND LEARNING DISABILITIES. (3, 0, 3). Behavioral and cognitive characteristics of individual learners, criteria for identification, and etiology. Prereq: SPED certification, SPED 540.

542. ADVANCED METHODS FOR STUDENTS WITH BEHAVIOR AND LEARNING DISABILITIES. (3, 0, 3). Theoretical bases for instructional design, program development and intervention planning. Prereq: SPED certification, SPED 541.

543. PRINCIPLES OF INCLUSIVE EARLY CHILDHOOD EDUCATION. (3, 0, 3). Prereq: SPED 540.

544. ADVANCED METHODS FOR INCLUSIVE EARLY CHILDHOOD EDUCATION. (3, 0, 3). Prereq: SPED 543.

545. ADVANCED BEHAVIORAL ANALYSIS. (3, 0, 3). Theory and implementation of strategies for changing student behavior. Prereq: SPED 404(G). Restr: Permission of department head required.

590. CURRENT RESEARCH IN GIFTED EDUCATION. (3, 0, 3). Trends and issues in gifted education. Restr: Certification in gifted education required.

591. INTERNSHIP IN GIFTED EDUCATION. (6). May be repeated. Alternate subtitles will appear on student's transcripts. Supervised experience in the provision of direct services or administrative leadership. Restr: Student teaching or certification in elementary or secondary education; availability of placement appropriate to the internship; SPED 509; and permission of program coordinator required.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

STATISTICS (STAT 097)

417(G). BIOMETRY. (3, 0, 3). Statistical applications in the biological and health sciences. Topics include descriptive statistics, hypothesis testing, prediction, survey design and analysis, use of statistical software packages. Prereq: STAT 214 with a grade of "C" or better.

425(G), 426(G). BASIC THEORY OF STATISTICS I, II. (3, 0, 3 ea.). Probability distributions, random variables, moments, sampling theory, estimation, hypothesis testing. Prereq: MATH 302 with a grade of "C" or better.

427(G). STATISTICAL METHODS FOR RESEARCHERS I. (3, 0, 3). Applications useful to researchers in all fields. Probability distributions, measurements of precision and accuracy, control charts, tests of significance, confidence intervals, analysis of variance, use of statistical software packages. Prereq: MATH 109 with a grade of "C" or better.

428(G). STATISTICAL METHODS FOR RESEARCHERS II. (3, 0, 3). Multiple correlation and regression, design and analysis of experiments, problems from behavioral sciences, biological sciences, and engineering. Prereq: STAT 417(G) or STAT 427(G) with a grade of "C" or better.

440(G). APPLIED NON-PARAMETRIC STATISTICS. (3, 0, 3). Inferential methods where assumptions for parametric tests are questionable. Includes tests for randomness, goodness of fit, location, spread and correlation. Applications stressed. Prereq: STAT 214 with a grade of "C" or better.

450(G). QUALITY CONTROL. (3, 0, 3). Construction and analysis of control charts for variables and attributes, acceptance sampling, tolerances. Prereq: STAT 325 with a grade of "C" or better.

454(G). OPERATIONS RESEARCH. (3, 0, 3). Deterministic and probabilistic models of operations research, including linear programming, queuing, and inventory models. Prereq: MATH 250 or MATH 270, and STAT 325 with grades of "C" or better.

480(G). SEMINAR IN STATISTICS. (3, 0, 3). Special interest not covered in detail in other courses. Restr: Permission of instructor required.

497(G)-498(G). SPECIAL PROJECTS I, II. (3 ea.). Special and individual study projects. Restr: Permission of department required.

502. STATISTICAL CONSULTING. (0, 1, 1). Restr: Graduates only.

520. PROBABILITY THEORY. (3, 0, 3). Probability distributions, limit theorems, special functions, probability models. Restr: Permission of department required.

521. APPLIED REGRESSION ANALYSIS AND EXPERIMENTAL DESIGN. (3, 0, 3). Least squares, curve fitting, stepwise and multiple regression, response surfaces, correlation analysis, nonlinear regression, use of statistical software packages. Prereq: STAT 427 or permission of department required.

522. EXPERIMENTAL DESIGN. (3, 0, 3). Applications of statistics to the design and analysis of experiments, including randomized and factorial designs. Prereq: STAT 521.

523-524. MATHEMATICAL STATISTICS I, II. (3, 0, 3 ea.). Theory of distributions and statistical inference. Restr: Permission of department required.

525. STOCHASTIC PROCESSES. (3, 0, 3). Counting, Gaussian, stationary, and ergodic processes. Prereq: STAT 523, or permission department required.

528. APPLIED TIME SERIES. (3, 0, 3). Box-Jenkins Models, including autocorrelation, spectrum, linear, and nonlinear stationary models, model identification, model estimation, seasonal models. Prereq: Stat 520 or permission of department required.

530. LINEAR MODELS. (3, 0, 3). Linear hypothesis, Gauss-Markoff theorem, generalized least squares, analysis of variance, hypothesis testing, orthogonal polynomials, covariance. Prereq: STAT 524 or permission of department required.

535. APPLIED MULTIVARIATE ANALYSIS. (3, 0, 3). Principal component and factor analysis, discriminant and cluster analysis, canonical correlation, multiple analysis of variance. Prereq: STAT 522 or permission of department.

540. NON-PARAMETRIC STATISTICS. (3, 0, 3). Distribution-free testing and estimation techniques. Prereq: STAT 523 or permission of department required.

545. STATISTICAL COMPUTING. (3, 0, 3). Random number generators, techniques for generating data from various distributions, techniques used in statistical software packages, plotting techniques, statistical simulation. Restr: Permission of department required.

550. ADVANCED QUALITY CONTROL. (3, 0, 3). New theoretical developments in statistical quality control. New approaches to quality, the design and comparison of control charts, Markov chain representations of control charts, continuous sampling plans, and the theory of acceptance sampling. Prereq: Stat 523 or permission of department required.

568. SAMPLING THEORY. (3, 0, 3). Prereq: STAT 427(G) or permission of department required.

570. RESEARCH METHODS. (3, 0, 3). May be repeated for credit. Restr: Permission of department required. Grade: NC/CR.

580. SPECIAL TOPICS IN APPLIED STATISTICS. (3, 0, 3). Restr: Permission of department required.

581. SPECIAL TOPICS IN MATHEMATICAL STATISTICS. (3, 0, 3). Restr: Permission of department required.

594. RESEARCH. (3-6). To be taken by non-thesis option master's students only. Credit to be 3 hours unless written justification for varied credits is accepted by the Graduate School. Grades: S, U, W.

597-598. SPECIAL TOPICS I, II. (3 ea.). Special topics or individual study. Restr: Permission of department required.

622. ADVANCED EXPERIMENTAL DESIGN. (3, 0, 3). Construction, theory, and analysis of experimental designs. Prereq: STAT 522 and STAT 523 or permission of department required.

623-624. ADVANCED STATISTICAL INFERENCE I, II. (3, 0, 3 ea.). Sufficient statistics, completeness, bounds of variance for estimators, invariance, UMP tests, general linear hypothesis, confidence ellipsoids, multiple comparisons and decision problems, sequential analysis. Prereq: STAT 524 or permission of department required.

635. MULTIVARIATE ANALYSIS. (3, 0, 3). Multivariate normal distribution, Hotelling's statistic, Wishart distribution, multivariate analysis of variance. Prereq: STAT 523, STAT 524 or permission of department required.

640. THEORY OF NON-PARAMETRIC STATISTICS. (3, 0, 3). Empirical distribution functions, order statistics, tolerance regions, rank order tests, asymptotic distributions. Prereq: STAT 523, STAT 540 or permission of department required.

680. SEMINAR IN ADVANCED STATISTICAL INFERENCE. (3, 0, 3). Restr: Permission of instructor required.

TELECOMMUNICATIONS (TLCM) (EECE 029)

500. PHYSICAL SCIENCE OF TELECOMMUNICATIONS. (3, 0, 3). Course in the physical phenomena that form the basis for telecommunications systems is intended for students with minimal science and math backgrounds. The concepts include electromagnetic waves, electro-optics, time and frequency description of signals, sampling, and noise.

502. TELECOMMUNICATION SYSTEMS. (2, 3, 3). Fundamentals of telecommunications terminal, transmission and switching equipment are presented along with a hands-on laboratory. Terminals include voice, data and video and their interfaces with digital networks. Transmission includes wire line, radio and fiber optic. Switches considered are digital. Prereq: TLCM 500.

503. TELECOMMUNICATIONS NETWORK FUNDAMENTALS. (3, 0, 3). Fundamental concepts of telecommunications networks including both packet-switched and circuit-switched networks. Local area network protocols and their operational properties. Familiarity with computers required. Prereq: TLCM 500.

510. RANDOM PHENOMENA IN TELECOMMUNICATIONS. (3, 0, 3). Course in the concepts of probability and random processes needed for the study of telecommunications is designed for students with engineering, math or science background. Included in this course are Poisson processes and queuing, noise processes that describe thermal and quantization noise, and the spectra of various random signals.

511. TELECOMMUNICATIONS TRANSMISSION PRINCIPLES. (3, 0, 3). Bandwidth considerations for coding of information signals from various information media. Transmission of baseband and modulated waveforms through radio, conducting cable, and fiber optic channels. Prereq: TLCM 510.

513. TELECOMMUNICATIONS NETWORK ANALYSIS AND DESIGN. (3, 0, 3). Layered architecture for telecommunications networks with emphasis on layers two through four. Standards-based networks including link protocols, flow control, and routing algorithms. Integrated-services networks for multimedia information flow are considered along with appropriate signaling systems. Prereq: TLCM 510.

519. FUNDAMENTALS OF RF IC DESIGN. (3, 0, 3). Design of RF integrated circuits for communications systems. Includes basics of information theory, communication systems, amplification, modulation, mixing and detection, followed by a detailed treatment of topics such as passive components, active components, lumped RLC networks, distributed RLC networks, Smith Chart, S-parameters, bandwidth estimation, high frequency amplifier design, and noise.

520. NETWORK MANAGEMENT AND CONTROL. (3, 0, 3). Standards-based protocols for the management of telecommunications networks, including the Simple Network Management Protocol and the Common Management Information Protocol. Extensions of present protocols to optimize network performance. Prereq: TLCM 513.

521. TOPICS IN LIGHTWAVE NETWORKS. (3, 0, 3). Optical fiber propagation; optical sources and receivers; photonic switching networks; high-capacity optical networks and standards; WDM; and multi-hop lightwave networks. Prereq: TLCM 511.

522. OPTICAL FIBER COMMUNICATION DEVICES. (3, 0, 3). Light-wave communication fundamentals, integrated optic waveguides, measurement standards and test procedures. DWDM concepts, and passive and active components. Restr: Permission of instructor required.

523. MULTIPLE ACCESS NETWORKS. (3, 0, 3). Media access control and logical link control methods for multiple access networks. Time, frequency, and code division access methods for LANs, MANs, and satellites. Performance analysis of Token Ring, Token Bus, CSMA/CD, and IEEE 802.x protocols. Prereq: TLCM 513.

524. MOBILE AND WIRELESS NETWORKS. (3, 0, 3) Techniques in the design and operation of first and second generation wireless networks including data networks and nomadic computing; personal communication services (PCS); mobile signaling, calls, and sessions; protocols; and system management procedures.

525. MODELING AND PERFORMANCE EVALUATION OF TELECOMMUNICATIONS NETWORKS. (3, 0, 3). Basic principles and selected methodologies. Prereq: TLCM 510.

526. NEURAL NETWORKS AND FEEDBACK CONTROL FOR TELECOMMUNICATIONS. (3, 0, 3). Techniques for stabilization and control. Neural networks for modeling simulation.

529. ELECTRONIC DEVICES FOR WIRELESS AND LIGHTWAVE COMMUNICATION. (3, 0, 3). Physical theory and operation of MOS field-effect transistors using charge-sheet models. Short and narrow channel effects, noise mechanisms, and RF performance in QS and NQS regimes.

530. TELECOMMUNICATION PROJECT PLANNING. (3, 0, 3). Planning and implementation of telecommunications systems from strategic planning through project definition, request-for-proposal writing and responding to an RFP with a plan. Students without experience in industry must have taken TCM 550.

550. TELECOMMUNICATIONS INDUSTRY DEVELOPMENT. (3, 0, 3). Overview of the telecommunications industry, its structure, historical background, and the regulations under which it operates. Spectrum management, public utility regulation, natural monopoly concepts and antitrust laws as they apply in telecommunications.

580. SPECIAL TOPICS IN TELECOMMUNICATIONS. (3,0, 3). New technologies and trends including engineering, business and policy aspects.

597-598. DIRECTED INDIVIDUAL STUDY IN TELECOMMUNICATIONS. (3, 0, 3 ea.). Students pursue in-depth advanced projects subject to faculty approval.

599. THESIS RESEARCH AND THESIS. (1-9). Grades: S, U, W.

899. EXAMINATIONS ONLY. (3). Required of all graduate non-thesis students taking examinations, oral and/or written, who are not registered for any other course. Grades: S, U, W.

THEATRE (THEA 021)

440(G). SPECIAL PROJECT. (3, 0, 3). Investigation of one or more phases of theatre.

464(G). DIRECTING II. (2, 2, 3). Text analysis, staging, prompt book, working with actors, and the preparation of a one-act play for public performance. Prereq: THEA 364. Restr: Upper division status required.

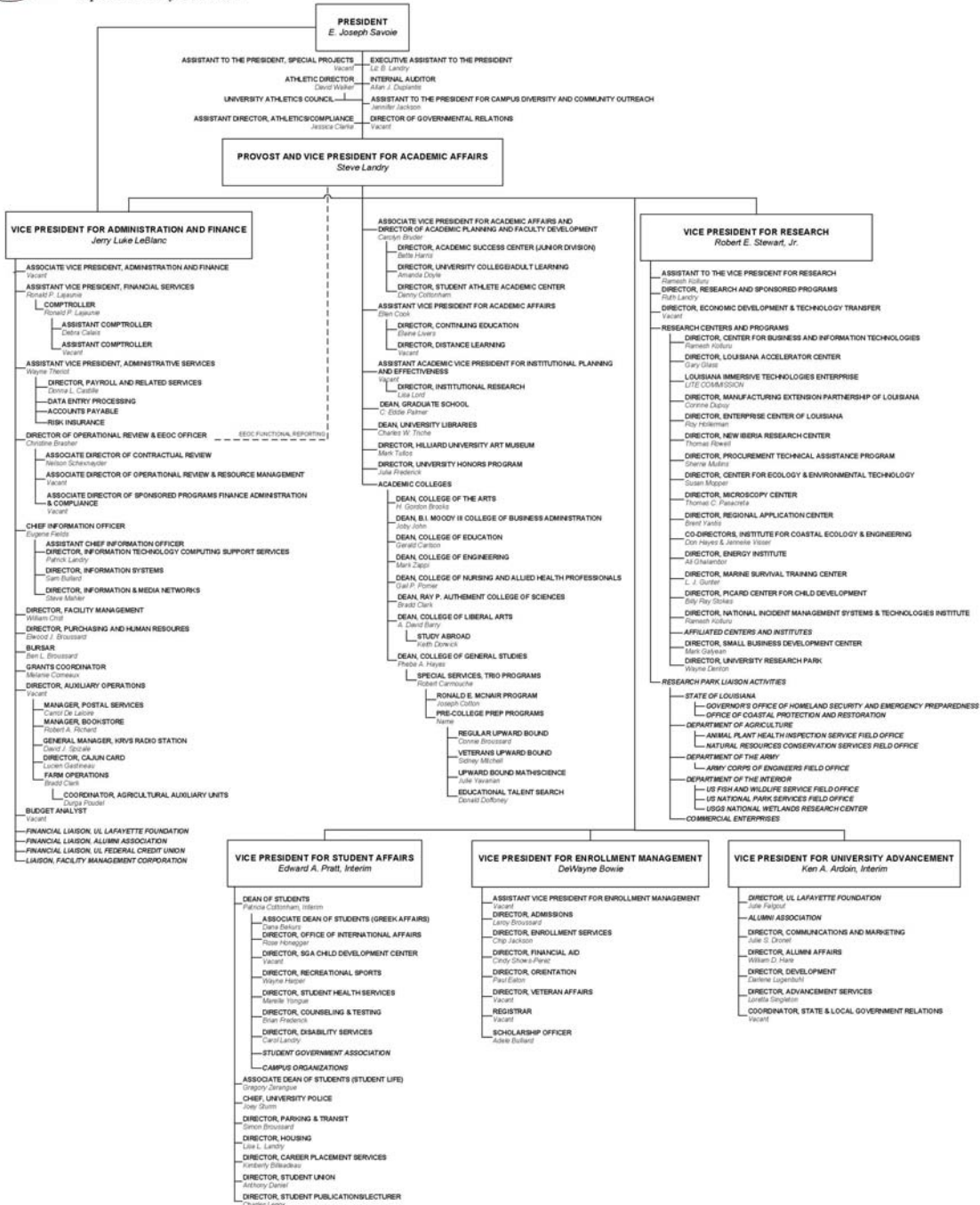




University of Louisiana at Lafayette

Organization Chart

Updated: July 31, 2009



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GRADUATE PERSONNEL

THE UNIVERSITY COUNCIL

E. Joseph Savoie, Ed.D.	President
Kenneth A. Ardoin, M.L.A.	Interim Vice President, University Advancement
DeWayne Bowie, Ph.D.	Vice President for Enrollment Management
Jennifer Jackson, Ed.D.	Assistant to the President for Campus Diversity and Community Outreach
Ronald P. Lajaunie, B.S.	Assistant Vice President for Financial Services
Liz B. Landry, B.S.	Executive Assistant to the President
Steve P. Landry, Ph.D.	Provost and Vice President for Academic Affairs
Jerry Luke LeBlanc, B.S.B.A.	Vice President for Administration and Finance
Robert McKinney, M.Arch.	Executive Officer of the Faculty Senate
Edward Pratt, M.Ed.	Interim Vice President for Student Affairs

THE GRADUATE COUNCIL

Jack S. Damico, Ph.D.; Chair	Communicative Disorders
Christo Christov, D.Sc.	Mathematics
Keng Deng, Ph.D.	Mathematics
Suren M. Dwivedi, Ph.D.	Mechanical Engineering
Brad Moon, Ph.D.	Biology
C. E. Palmer, Ph.D.	Dean of the Graduate School
Dmitri Perkins, Ph.D.	Center for Advanced Computer Studies
Rand W. Ressler, Ph.D.	Economics
William Rieck, Ed.D.	Curriculum and Instruction
Natalia Sidorovskaia, Ph.D.	Physics
Monica Wright, Ph.D.	Modern Languages
Yung Hsing Wu, Ph.D.	English

ARCHITECTURE

Robert McKinney, M.Arch.; Head	Virginia Polytechnic Institute and State University, 1989
Dan W. Burkett, M.Arch.	Rice University, 2005
William Geoffrey Gjertson, M.Arch.	Rice University, 1992
Hector Lasala, M.Arch.	Texas A&M University, 1976
Andy F. Loewy, M.F.A.	University of Memphis, 1984
Michael A. McClure, M.Arch.	Columbia University, New York, 1996
Onézieme Mouton, M.Arch.	Rice University, 2001
Corey Saft, M.Arch.	University of Oregon, 1999
Thomas C. Sammons, M.Arch.	Cornell University, 1987
Kari Smith, M.Arch.	Rice University, 2005

BIOLOGY

Specialties in evolutionary biology, environmental processes and physiology, functional morphology, ultrastructure, community structure, population ecology, population genetics, systematics, and microbiology.

Glen M. Watson, Ph.D., Head	Florida State University, 1983
James S. Albert, Ph.D.	University of Michigan, 1995

Raymond T. Bauer, Ph.D.	University of California, 1976
Roy C. Brown, Ph.D.	Arizona State University, 1974
Andrei Chistoserdov, Ph.D.	Institute of Genetics and Selection of Industrial Microorganisms, 1985
Caryl Anne Chlan, Ph.D.	University of Georgia, 1985
Rachel Collin, Ph.D.	University of Chicago, 2002
Lewis E. Deaton, Ph.D.	Florida State University, 1979
Scott Duke-Sylvester, Ph.D.	University of Tennessee, 2006
Don G. Ennis, Ph.D.	University of Arizona, 1988
Darryl L. Felder, Ph.D.	Louisiana State University, 1975
Bruce E. Felgenhauer, Ph.D.	Florida State University, 1982
Scott C. France, Ph.D.	University of California San Diego, 1992
Suzanne Fredericq, Ph.D.	University of North Carolina, 1988
James B. Grace, Ph.D.	Michigan State University, 1980
Karl H. Hasenstein, Doctor rerum naturalium	University of Saarland, 1982
Kirsten Heimann, Ph.D.	Universität zu Köln, 1991
Mark W. Hester, Ph.D.	Louisiana State University, 1995
Jill A. Jenkins, Ph.D.	Memphis State University, 1991
Derek M. Johnson, Ph.D.	University of Miami, 2003
Paul L. Klerks, Ph.D.	State University of New York at Stony Brook, 1987
Paul L. Leberg, Ph.D.	University of Georgia, 1990
Rafael Lemaitre, Ph.D.	University of Miami, 1986
Thomas C. Michot, Ph.D.	Louisiana State University, 1981
Beth A. Middleton, Ph.D.	Iowa State University, 1989
Patricia Mire, Ph.D.	University of Louisiana at Lafayette, 1993
Brad R. Moon, Ph.D.	University of Michigan at Ann Arbor, 1998
Susan Mopper, Ph.D.	Northern Arizona University, 1987
Joseph E. Neigel, Ph.D.	University of Georgia, 1984
James N. Norris, Ph.D.	University of California, Santa Barbara, 1975
Thomas C. Pesacreta, Ph.D.	Cornell University, 1981
Daniel J. Povinelli, Ph.D.	Yale University, 1991
Mauricio Rodriguez-Lanetty, Ph.D.	University of Queensland, 2001
Patricia E. Rosel, Ph.D.	University of California, San Diego, 1992
Lawrence P. Rozas, Ph.D.	University of Virginia, 1987
Jeffrey H. Spring, Ph.D.	University of British Columbia, 1979
Judith E. Winston, Ph.D.	University of Chicago, 1974

BUSINESS ADMINISTRATION

Accounting

Thomas E. Wilson, Jr., Ph.D.; Head	Louisiana State University, 1991
Harlan Etheridge, Ph.D.	Louisiana State University, 1991
Kathy Hsiao Yu Hsu, Ph.D.	University of Houston, 1995
Dan R. Ward, D.B.A.	Louisiana Tech University, 1979
Suzanne Pinac Ward, Ph.D.	Louisiana State University, 1986

Business Systems, Analysis, and Technology

Harlan Etheridge, Ph.D.; Interim Head	Louisiana State University, 1991
Hsiu-Yueh Hsu, Ph.D.	Southern Illinois University, 2006
Mohan Rao, Ph.D.	University of Alabama, 1988
John R. Tanner, Ph.D.	University of Arkansas, 1973
Michael Wayne Totaro, Ph.D.	University of Louisiana at Lafayette, 2007
Zhiwei Zhu, Ph.D.	Clemson University, 1988

Economics/Finance

Rand W. Ressler, Ph.D.; Head Auburn University, 1993
 Denis O. Boudreaux, Ph.D. Mississippi State University, 1988
 William L. Ferguson, Ph.D. University of Georgia, 1995
 Anthony Greco, Ph.D. University of Tennessee, 1978
 Will C. Heath, Ph.D. Louisiana State University, 1983
 Spuma M. Rao, D.B.A. Mississippi State University, 1988
 John Keith Watson, Ph.D. Texas A&M, 1982

Management

Mark Smith, Ph.D.; Head University of Washington at Seattle, 1983
 Kerry David Carson, Ph.D. Louisiana State University, 1991
 Paula Phillips Carson, Ph.D. Louisiana State University, 1992
 Ronald G. Cheek, Ph.D. University of New Orleans, 1996
 Tamela Dawn Ferguson, Ph.D. Louisiana State University, 2000
 James Brooke Hamilton, III, Ph.D. Emory University, 1972
 Vanessa Hill, Ph.D. Carnegie Mellon University, 1998
 Stephen B. Knouse, Ph.D. Ohio State University, 1977
 Patricia A. Lanier, D.B.A. Louisiana Tech, 1994
 Lise Anne D. Slatten, E.D.M. Case Western Reserve University, 2009

Marketing and Hospitality Management

Gwen Fontenot, Ph.D.; Head University of North Texas, 1988
 Lucy L. Henke, Ph.D. University of Massachusetts, Amherst, 1980
 Anne Keaty, J.D. Louisiana State University, 1978
 Geoffrey T. Stewart, Ph.D. University of Tennessee, 2006
 Ramendra Thakur, Ph.D. Southern Illinois University Carbondale, 2005
 P. Robert Viguerie, Jr., J.D. Louisiana State University, 1977

THE CENTER FOR ADVANCED COMPUTER STUDIES**Computer Engineering**

Specialties in Computer Design and System Architecture, Computer Networks and Communication, Fault-Tolerant Computing, Parallel and Distributed Computing, VLSI Architectures and Design Methodologies, Robotics and Automation, Mobile and Wireless Communication, Visual and Image Computing, Neural Networks, Real-Time Systems, and Reality.

Magdy Bayoumi, Ph.D., Director; CACS University of Windsor, 1984
 Chee-Hung Henry Chu, Ph.D. Purdue University, 1988
 Mohamed Elgamel, Ph.D. University of Louisiana at Lafayette, 2003
 Soumik Ghosh, Ph.D. University of Louisiana at Lafayette, 2008
 Nian-Feng Tzeng, Ph.D. University of Illinois at Urbana, 1986

Computer Science

Specialties in Artificial Intelligence and Cognitive Science, Database Systems, Information Retrieval and Mining, Software Systems and Engineering, Multimedia Systems and Architectures, Computer Graphics, Information and Coding Theory, Distributed and Parallel Computing, Networks, Internet Computing, and Security.

Dipesh Bhattarai, Ph.D. Louisiana State University, 2008
 Ryan Benton, Ph.D. University of Louisiana at Lafayette, 2001
 Christoph Borst, Ph.D. Texas A&M University, 2002
 Subrata Dasgupta, Ph.D. University of Alberta, 1976
 William R. Edwards, Jr., Ph.D. University of Kansas, 1973

Kemal Efe, Ph.D.	University of Leeds, 1985
Miao Jin, Ph.D.	Stony Rock University, 2008
Gui-Liang Feng, Ph.D.	Lehigh University, 1990
Arun Lakhotia, Ph.D.	Case Western Reserve University, 1989
Rasiah Loganantharaj, Ph.D.	Colorado State University, 1985
Anthony S. Maida, Ph.D.	State University of New York at Buffalo, 1980
Dmitri D. Perkins, Ph.D.	Michigan State University, 2002
Vijay V. Raghavan, Ph.D.	University of Alberta, 1978
Dirk Reiners, Doktor-Ingenieur	Technical University of Darmstadt, 2002
Hongyi Wu, Ph.D.	State University of New York at Buffalo, 2002
Danella Zhao, Ph.D.	State University of New York at Buffalo, 2004

COGNITIVE SCIENCE

Research in human, animal, and machine cognition. Specialties in cognitive development, creativity and problem solving, philosophy of mind and epistemology, comparative psychobiology of apes and humans, neuroscience, computer simulation of cognition, artificial neural networks, and machine vision.

Subrata Dasgupta, Ph.D.; Director	University of Alberta, 1976
Istvan S. N. Berkeley, Ph.D.	University of Alberta, 1997
Claude G. Cech, Ph.D.	University of Illinois, 1981
Michele I. Feist, Ph.D.	Northwestern University at Evanston, 2000
Matthew Isaak, Ph.D.	Carnegie Mellon University, 1994
Michael L. Kalish, Ph.D.	University of California at San Diego, 1993
Cheryl S. Lynch, Ph.D.	Tulane University, 1991
Anthony S. Maida, Ph.D.	State University of New York at Buffalo, 1980

COMMUNICATION

Concentrations in Advertising, Interpersonal/Organizational Communication, Mass Communication (journalism), and Public Relations.

Michael Maher, Ph.D.; Head	University of Texas at Austin, 1995
Tyrone L. Adams, Ph.D.	Florida State University, 1995
Philip Auter, Ph.D.	University of Kentucky, 1992
Heidi C. Bordogna, M.F.A.	Goddard University, 2004
Robert T. Buckman, Ph.D.	University of Texas at Austin, 1986
Wonjun Chung, Ph.D.	Purdue University, 2005
William R. Davie, Ph.D.	University of Texas at Austin, 1991
Lucian F. Dinu, Ph.D.	University of Alabama, 2005
Sandra C. Duhé, Ph.D.	University of Texas at Dallas, 2004
Dedria Givens-Carroll, Ph.D.	University of Southern Mississippi, 2006
Do Kyun Kim, Ph.D.	Ohio University, 2007

COUNSELOR EDUCATION

Emphasis areas in School Counseling, Community Counseling, Rehabilitation Counseling, and College Counseling.

Irvin G. Esters, Ph.D.; Director	University of Mississippi, 1995
Latifey B. LaFleur, Ph.D.	University of New Orleans, 2007

EDUCATION

Curriculum and Instruction: Master's degrees offered in Curriculum and Instruction and Gifted Education.

Christine J. Briggs, Ph.D.; Head University of Connecticut, 2003
 Albertaeve S. Abington-Pitre, Ed.D. Oklahoma State University, 2005
 Toby Allen Daspit, Ph.D. Louisiana State University, 1998
 Joy L. Davis, Ed.D. The College of William and Mary, 2008
 Sally M. Dobyns, Ph.D. University of Connecticut, 1992
 Mary Jane Ford, Ed.D. University of Southern Mississippi, 1984
 Beth R. Handler, Ph.D. University of Wisconsin-Madison, 2002
 Yuxin Ma, Ph.D. Georgia State University, 2005
 Edith G. Mayers, Ph.D. Louisiana State University, 1995
 Robin E. McCartney, Ph.D. Louisiana State University, 1999
 William A. Rieck, Ed.D. Loyola University, Chicago, 1976
 Pavel Samsonov, Ph.D. Texas A&M University, 2001
 Peter A. Sheppard, IV, Ph.D. Southern University, 2005
 Elaine Riley Taylor, Ph.D. Louisiana State University, 2000
 Donna Elizabeth Wadsworth, Ph.D. Louisiana State University, 1995
 Elizabeth C. Webre, Ed.D. University of Louisiana at Monroe, 1979
 Douglas C. Williams, Ph.D. University of Texas at Austin, 1999

Foundations and Leadership: Master's degree offered in Educational Leadership.

Nathan M. Roberts, Ph.D.; Head Louisiana State University, 2001
 Janet G. Broussard, Ph.D. Louisiana State University, 2006
 Frank S. Del Favero, Ph.D. State University of New York, Albany, 2003
 Irvin G. Esters, Ph.D. University of Mississippi, 1995
 James R. Flaitz, Ph.D. University of Alabama, 1984
 Roslin E. Growe, Ed.D. Mississippi State University, 1986
 Rayma Harchar, Ed.D. Oklahoma State University, 1992
 Paula S. Montgomery, Ph.D. University of Southern Mississippi, 1997
 Dianne F. Olivier, Ph.D. Louisiana State University, 2001
 Charles Jeffrey Sandoz, Ph.D. Temple University, 1995
 Robert O. Slater, Ph.D. University of Chicago, 1983
 Maritza (Mitzi) Trahan, Ph.D. Louisiana State University, 2008
 Jefry L. White, Ph.D. Ohio State University, 2005

Kinesiology: Master's emphases in Exercise Science, Adapted Physical Education, Health, and Curriculum and Administration.

Gerald P. Carlson, Ed.D.; Dean of Education University of Utah, 1973
 Charity Leigh Bryan, Ph.D.; Head Louisiana State University, 2006
 David Michael Beller, Ph.D. Kent State University, 2009
 Brian Jude Campbell, Ph.D. Auburn University, 2006
 James M. Clemons, Ph.D. University of Mississippi, 1991
 Toby Dore, Ph.D. University of Southern Mississippi, 2000
 Charles A. Duncan, Ph.D. Florida State University, 1992
 Claire M. Foret, Ph.D. Texas Woman's University, 1985
 Andrew Hatchett, Ph.D. University of Mississippi, 2008
 Praphul Joshi, Ph.D. University of South Carolina, 2004
 Susan Lyman, Ph.D. Texas A&M University, 1995
 Justin F. Shroyer, Ph.D. Auburn University, 2009

ENGINEERING

Chemical Engineering Option: Research directed toward the needs of local industries. Specializations in: corrosion and material science; high pressure phase equilibria; multiphase flow, flow through porous media; heat transfer; fermentation; environmental science; and industrial waste treatment.

Mark E. Zappi, Ph.D.; Dean of Engineering Mississippi State University, 1995
 James D. Garber, Ph.D.; Head Georgia Institute of Technology, 1971
 Rakesh K. Bajpai, Ph.D. Indian Institute of Technology, 1976
 William M. Chirdon, Ph.D. University of Michigan, 2004
 Stephen Dufreche, Ph.D. Mississippi State University, 2008
 Fred Farshad, Ph.D. Oklahoma State University, 1975
 Yen-Shan Amy Liu, Ph.D. Texas A&M University 2006
 R. Devesh K. Misra, Ph.D. University of Cambridge, 1984
 James R. Reinhardt, Ph.D. University of Arkansas, 1977

Civil Engineering Option: Specialization in structural and geotechnical engineering, water resources and environmental engineering, and pavement and transportation engineering.

Kenneth McManis, Ph.D.; Head Louisiana State University, 1975
 J. Chris Carroll, Ph.D. Virginia Polytechnic Institute and State University, 2009
 Dianchen D. Gang, Ph.D. University of Missouri-Columbia, 2001
 Emad Habib, Ph.D. University of Iowa, 2001
 Donald F. Hayes, Ph.D. Colorado State University, 1990
 Russell Hibbeler, Ph.D. Northwestern University, 1968
 Mohammad Jamal Khattak, Ph.D. Michigan State University, 1999
 Ehab A. Meselhe, Ph.D. University of Iowa, 1994
 Xiaoduan Sun, Ph.D. Ohio State University, 1994

Electrical and Computer Engineering:

George Thomas, Ph.D.; Head Indian Institute of Science, 1978
 Carolina Cruz-Neira, Ph.D. University of Illinois at Chicago 1995
 Aef Fekih, Ph.D. National Engineering School of Tunis, Tunisia, 2002
 Robert Henry, Ph.D. New Mexico State University, 1974
 Renuka P. Jindal, Ph.D. University of Minnesota, 1981
 Mohammad Madani, Ph.D. Louisiana State University, 1989
 Zhongqi Pan, Ph.D. University of Southern California, 2003
 Michael A. Pratt, Ph.D. University of Louisiana at Lafayette, 2003

Mechanical Engineering Option: Specializing in Thermal-fluids Science, Thermodynamics, Heat Transfer, Fluid Mechanics, Machine Design, Stress Analysis and Vibrations, CAD/CAM, Robotics, Energy Systems Design, and Management.

Terrence L. Chambers, Ph.D. Brigham Young University, 1994
 Suren M. Dwivedi, Ph.D. Birla Institute of Technology, 1976
 Mostafa A. Elsayed, Ph.D. University of Pennsylvania, 1972
 William J. Emblom, Ph.D. Michigan Technological University, 2006
 Jerry K. Keska, D.Sc.Eng. State Polytechnic University of Krakow, 1974
 Theodore A. Kozman, Ph.D. University of Tennessee, 1972
 Jim Lee, Ph.D. University of Iowa, 1987
 Yucheng Liu, Ph.D. University of Louisville, 2005

Petroleum Engineering Option

Ali Ghalambor, Ph.D.; Head Virginia Polytechnic Institute and State University, 1974
 Fathi Boukadi, Ph.D. Pennsylvania State University, 1991
 Boyun Guo, Ph.D. New Mexico Tech, 1992
 Herman H. Rieke, Ph.D. University of Southern California, 1970

ENGLISH

Traditional concentrations in British and American literature and in literary criticism; rhetoric concentration at M.A. and Ph.D. level; creative writing concentrations at M.A. and Ph.D. levels; Folklore Concentration at M.A. and Ph.D. Levels; Linguistics Concentration at M.A. and Ph.D. levels, and TESOL concentration at M.A. level.

James C. McDonald, Ph.D.; Head University of Texas at Austin, 1987
 Joseph D. Andriano, Ph.D. Washington State University, 1986
 Elizabeth Bobo, Ph.D. Claremont Graduate University, 2005
 Christine DeVine, Ph.D. University of Wisconsin at Madison, 2001
 Keith Dorwick, Ph.D. University of Illinois at Chicago, 1998
 Willard Fox, Ph.D. Bowling Green State University, 1981
 M. Marcia Gaudet, Ph.D. University of Louisiana at Lafayette, 1980
 Jennifer Geer, Ph.D. University of Virginia, 2002
 Jonathan Goodwin, Ph.D. University of Florida, 2005
 John C. Greene, Ph.D. George Washington University, 1981
 Mark Honegger, Ph.D. University of Illinois at Urbana, 1997
 John Laudun, Ph.D. Indiana University, 1999
 Jerry L. McGuire, Ph.D. State University of New York at Buffalo, 1981
 Clancy Ratliff, Ph.D. University of Minnesota, 2006
 Marthe Reed, Ph.D. University of Western Australia, 2008
 Claiborne Rice, Ph.D. University of Georgia, 2008
 Lydia M. Whitt Rice, Ph.D. University of Georgia, 2006
 Charles E. Richard, M.F.A. Louisiana State University, 1993
 Daniel T. Smith, Ph.D. University of Cincinnati, 2008
 Dayana Stetco, Ph.D. Wayne State University, 1998
 Jennifer C. Vaught, Ph.D. Indiana University, 1997
 Mary Ann Wilson, Ph.D. Louisiana State University, 1977
 Yung-Hsing Wu, Ph.D. Indiana University, 1998
 Reginald S. Young, Ph.D. University of Illinois at Chicago, 1990

FRENCH

Concentrations in French culture and literature; in Francophone culture and literature including Louisiana Studies.

A. David Barry, Ph.D.; Dean of Liberal Arts. University of California at Los Angeles, 1975
 Suzanne Kocher, Ph.D.; Head University of Oregon, 1999
 Barry J. Ancelet, Doctorat de 3^e cycle University of Provence (Aix-Marseilles I), 1984
 Vincent Bouchard, Ph.D. University of Montreal, 2006
 Deborah J. Clifton, Ph.D. University of Louisiana at Lafayette, 2000
 Fabrice Leroy, Ph.D. Louisiana State University, 1991
 Tamara Linder, Ph.D. Indiana University, 2008
 Amadou Ouédraogo, Ph.D. University of Iowa, 2006
 Abdelhak Serhane, Doctorat University of Toulouse, 1982
 Doctorat University of Toulouse, 1989
 Doctorat University Hassan II, 1997
 May G. Waggoner, Ph.D. Tulane University, 1968

Richard Winters, Ph.D. Indiana University, 2004
 Monica L. Wright, Ph.D. Washington University in St. Louis, 2001

GEOLOGY

Specialization in carbonate petrology, coal geology, environmental geology, geochemistry, geomorphology, geophysics, groundwater, micropaleontology, sedimentology, stratigraphy, subsurface geology, and 3D visualization techniques.

Carl Richter, Ph.D.; Head..... Eberhard Karls University, Tübingen 1990
 Timothy W. Duex, Ph.D. University of Texas at Austin, 1983
 Victoria C. Hover, Ph.D. University of Michigan, 1996
 Gary L. Kinsland, Ph.D. University of Rochester, 1974
 Brian E. Lock, Ph.D. University of Cambridge, 1969
 Durga Dutta Poudel, Ph.D. University of Georgia, 1998
 Herman H. Rieke, Ph.D. University of Southern California, 1970
 Jack Stalnaker, Ph.D. Texas A&M University, 2004

HISTORY

Specialties in European, Latin American, Public, and U.S. History. Special emphasis on the American South and Louisiana History. The Library has extensive archival holdings for the Louisiana Colonial Era (1682-1803) as well as broad holdings in regional and local history.

Robert M. Carriker, Ph.D.; Head..... Arizona State University, 1996
 Carl Brasseaux, Doctorat de 3 cycle University of Paris VII, 1982
 Mary J. Farmer-Kaiser, Ph.D. Bowling Green State University, 2000
 Richard E. Frankel, Ph.D. University of North Carolina at Chapel Hill, 1999
 Julia Frederick, Ph.D. Louisiana State University, 2000
 Judith F. Gentry, Ph.D. Rice University, 1969
 Robin Hermann, Ph.D. Washington University in St. Louis, 2004
 Jordan Kellman, Ph.D. Princeton University, 1998
 Reinhart D. Kondert, Ph.D. Rice University, 1972
 Mark W. Lentz, Ph.D. Tulane University, 2009
 Michael S. Martin, Ph.D. University of Arkansas, 2003
 Susan V. Nicassio, Ph.D. Louisiana State University, 1989
 Chad Parker, Ph.D. Indiana University, 2008
 Carl J. Richard, Ph.D. Vanderbilt University, 1988
 Sara Ritchey, Ph.D. University of Chicago, 2005
 John W. Troutman, Ph.D. University of Texas at Austin, 2004

MATHEMATICS

Current research interests in the areas of algebra, analysis, applied mathematics, numerical analysis, statistics and topology.

Roger A. Waggoner, Ph.D.; Head..... Louisiana State University, 1969
 Azmy Ackleh, Ph.D. University of Tennessee at Knoxville, 1993
 Gary F. Birkenmeier, Ph.D. University of Wisconsin at Milwaukee, 1975
 Chiu Yeung Chan, Ph.D. University of Toronto, 1969
 Christo I. Christov, D.Sc. Bulgarian Academy of Sciences, 1987
 Stanca Ciupe, Ph.D. University of Michigan, Ann Arbor, 2005

Daniel G. Davis, Ph.D. Northwestern University, 2003
 Keng Deng, Ph.D. Iowa State University, 1990
 Christina Eubanks-Turner, Ph.D. University of Nebraska, 2008
 Mihai C. Giurcanu, Ph.D. University of Florida, 2007
 R. Baker Kearfott, Ph.D. University of Utah, 1977
 Kalimuthu Krishnamoorthy, Ph.D. Indian Institute of Technology at Kanpur, 1984
 Arturo Magidin, Ph.D. University of California, Berkeley, 1998
 Ping Wong Ng, Ph.D. University of California, Los Angeles, 2000
 Maciej Niebrzydowski, Ph.D. George Washington University, 2007
 Nabendu Pal, Ph.D. University of Maryland at Baltimore, 1984
 Paul Salceanu, Ph.D. Arizona State University, 2009
 A. S. Vatsala, Ph.D. Indian Institute of Technology at Madras, 1973
 Thelma R. West, Ph.D. University of Houston, 1986

MUSIC

Specializing in the Master of Music with emphases in pedagogy, performance, conducting, theory and composition, or music education.

Garth Alper, D.A.; Director University of Northern Colorado, 1997
 Margaret H. Daniel, M.M. University of Wisconsin at Madison, 1973
 Susanna P. Garcia, D.M.A. University of Texas at Austin, 1993
 Jeffrey L. George, D.M.A. Arizona State University, 2005
 Quincy C. Hilliard, Ph.D. University of Florida, 1984
 Jonathan L. Kulp, Ph.D. University of Texas at Austin, 2001
 Chan Kiat Lim, D.M.A. University of Cincinnati, 2004
 Andrea K. Loewy, Ph.D. Memphis State University, 1987
 Robert Luckey, Ph.D. University of Pittsburgh, 1981
 John Gabriel Miller, Ph.D. Ohio State University, 2008
 Paul D. Morton, D.M.A. University of Alabama, 1995
 Mary J. Reichling, D.M.E. Indiana University at Bloomington, 1991
 Catherine Roche-Wallace, D.M.A. University of Memphis, 1997
 Shawn Roy, M.M. Cincinnati College Conservatory of Music, 1982
 Robert Willey, Ph.D. University of California, San Diego, 1990

NURSING AND ALLIED HEALTH PROFESSIONS

Gail P. Poirrier, D.N.S.; Dean Louisiana State University, 1994
 Paula C. Broussard, D.N.S.; Head Louisiana State University, 2001
 Anne B. Broussard, D.N.S. Louisiana State University, 1995
 Lisa Broussard, D.N.S. Louisiana State University, 2006
 Donna M. Gauthier, Ph.D. University of Texas Medical Branch at Galveston, 2001
 Helen Maria Hurst, D.N.P. Case Western Reserve University, 2008
 Gwen Tesson Leigh, D.N.P. Case Western Reserve University, 2008
 Mary B. Neiheisel, Ed.D. Louisiana State University, 1981
 Melinda Granger Oberleitner, D.N.S. Louisiana State University, 1996
 Sudha C. Patel, D.N.S. Louisiana State University, 1993
 Soledad Smith, Ph.D. Louisiana State University, 2002
 Ardith L. Sudduth, Ph.D. University of Nebraska at Lincoln, 1992
 Evelyn M. Wills, Ph.D. University of Texas at Austin, 1990

PHYSICS

Specialties in (a) theoretical and computational research including acoustics, astrophysics, environmental physics, cosmology and general relativity; and (b) experimental physics including acoustics, biophysics, energy sources, environmental physics, solid state physics, and surface physics.

Natalia Sidorovskaia, Ph.D.; Head University of New Orleans, 1997
 Gary A. Glass, Ph.D. University of Tennessee, 1984
 William A. Hollerman, Ph.D. Alabama A&M University, 1996
 Andi G. Petculescu, Ph.D. Ohio University, 2002
 Gabriela L. Petculescu, Ph.D. Ohio University, 2002

PSYCHOLOGY

Specializations in General-Experimental, Applied, and School Psychology.

Cheryl S. Lynch, Ph.D.; Head Tulane University, 1991
 Amy L. Brown, Ph.D. Miami University, 2006
 Claude G. Cech, Ph.D. University of Illinois, 1981
 David Everett Greenway, Ph.D. University of New Mexico, 1995
 Matthew Isaak, Ph.D. Carnegie Mellon University, 1994
 Latifey B. Laffeur, Ph.D. University of New Orleans, 2007
 Hung-Chu Lin, Ph.D. University of Connecticut, 2006
 Robert McFatter, Ph.D. University of Denver, 1979
 David R. Perkins, Ph.D. University of New Mexico at Albuquerque, 2001
 Connie Veazey, Ph.D. University of Albany, State University of New York, 2003

SPEECH PATHOLOGY AND AUDIOLOGY

Concentrations in human communication science and disorders, clinical linguistics and phonetics, multilingualism, and applied linguistics.

Nancye C. Roussel, Ph.D.; Head Louisiana State University, 1992
 Martin John Ball, Ph.D. University of Wales, 1985
 Jack S. Damico, Ph.D. University of New Mexico, 1985
 Holly Howat, Ph.D. University of Louisiana at Lafayette, 2005
 Nicole Müller, D.Phil. Oxford University, 1993
 Ryan Nelson, Ph.D. University of Louisiana at Lafayette, 2004
 John W. Oller, Jr., Ph.D. University of Rochester, 1969
 Judith D. Oxley, Ph.D. Louisiana State University, 1995
 John A. Tetnowski, Ph.D. Florida State University, 1993

TELECOMMUNICATIONS

Disciplinary and interdisciplinary research in networking, transmission and switching, use of telecommunications as a strategic business resource, and policy issues such as privacy and spectrum management.

Carolina Cruz-Neira, Ph.D. University of Illinois at Chicago, 1995
 Afef Fekih, Ph.D. National Engineering School of Tunis, Tunisia, 2002
 Robert R. Henry, Ph.D. New Mexico State University, 1974
 Renuka P. Jindal, Ph.D. University of Minnesota, 1981
 Mohammad R. Madani, Ph.D. Louisiana State University, 1989

Zhongqi Pan, Ph.D. University of Southern California, 2003
 Michael A. Pratt, Ph.D. University of Louisiana at Lafayette, 2003
 George Thomas, Ph.D. Indian Institute of Science, 1978

GRADUATE FACULTY MEMBERS IN NON-DEGREE GRANTING AREAS

CHEMISTRY

Salah S. Massoud, Ph.D. Boston University, 1985
 Radhey S. Srivastava, Ph.D. University of Gorakhpur, 1978
 Eric R. Taylor, Ph.D. Rutgers, The State University, 1981
 Wu Xu, Ph.D. Iowa State University, 2001

COMPUTER SCIENCE

Ashok Kumar, Ph.D. University of Louisiana at Lafayette, 1999
 Andrew Walenstein, Ph.D. Simon Fraser University, 2002

CRIMINAL JUSTICE

Craig J. Forsyth, Ph.D.; Head Louisiana State University, 1983
 Rhonda D. Evans, Ph.D. Texas A&M University, 2002

HEALTH INFORMATION MANAGEMENT

L. Philip Caillouet, Ph.D. University of Louisiana at Lafayette, 1975

INDUSTRIAL TECHNOLOGY

Shelton L. Houston, Ph.D.; Head University of Mississippi, 1988
 Cherif Aissi, D.Sc. George Washington University, 1988
 Ahmed Khattab, Ph.D. University of Missouri-Columbia, 2005
 G. H. Massiha, Ph.D. University of South Florida, 1991

PHILOSOPHY

Istvan S. N. Berkeley, Ph.D. University of Alberta, 1997
 Keith Korcz, Ph.D. Ohio State University, 1996

POLITICAL SCIENCE

Bryan-Paul Frost, Ph.D. University of Toronto, 1996
 Sharon J. Ridgeway, Ph.D. Northern Arizona University, 1996
 Rick A. Swanson, Ph.D. University of Kentucky, 2001

RENEWABLE RESOURCES

Durga Dutta Poudel, Ph.D.; Head University of Georgia 1998
 Barbara C. Benson, Ph.D. Louisiana State University, 2003
 H. Alan DeRamus, Ph.D. University of Arkansas, 1980
 Leonder Labbe, Ph.D. Louisiana State University, 1991
 Jenneke M. Visser, Ph.D. Louisiana State University, 1989

SOCIOLOGY and ANTHROPOLOGY

C. Eddie Palmer, Ph.D., Dean of the Graduate School.....
 Virginia Polytechnic Institute and State University, 1975
 C. Ray Brassieur, Ph.D. University of Missouri at Columbia, 1999
 JoAnne D. DeRouen, Ph.D. Colorado State University, 1995
 Craig J. Forsyth, Ph.D. Louisiana State University, 1983
 Robert B. Gramling, Jr., Ph.D. Florida State University, 1975
 Jacques M. Henry, Doctorat de 3e cycle..... University of Paris V, 1983
 Rene Pogue, Ph.D. Louisiana State University, 2004
 Daniel J. Povinelli, Ph.D. Yale University, 1991
 Mark A. Rees, Ph.D. University of Oklahoma, 2001
 George P. Wooddell, Ph.D. Louisiana State University, 1999
 David Yarbrough, Ph.D. University of Tennessee, 1994

SPANISH

Francisco Gracia-Rubio, Ph.D. University of Connecticut, 2008
 Richard Winters, Ph.D. Indiana University, 2004



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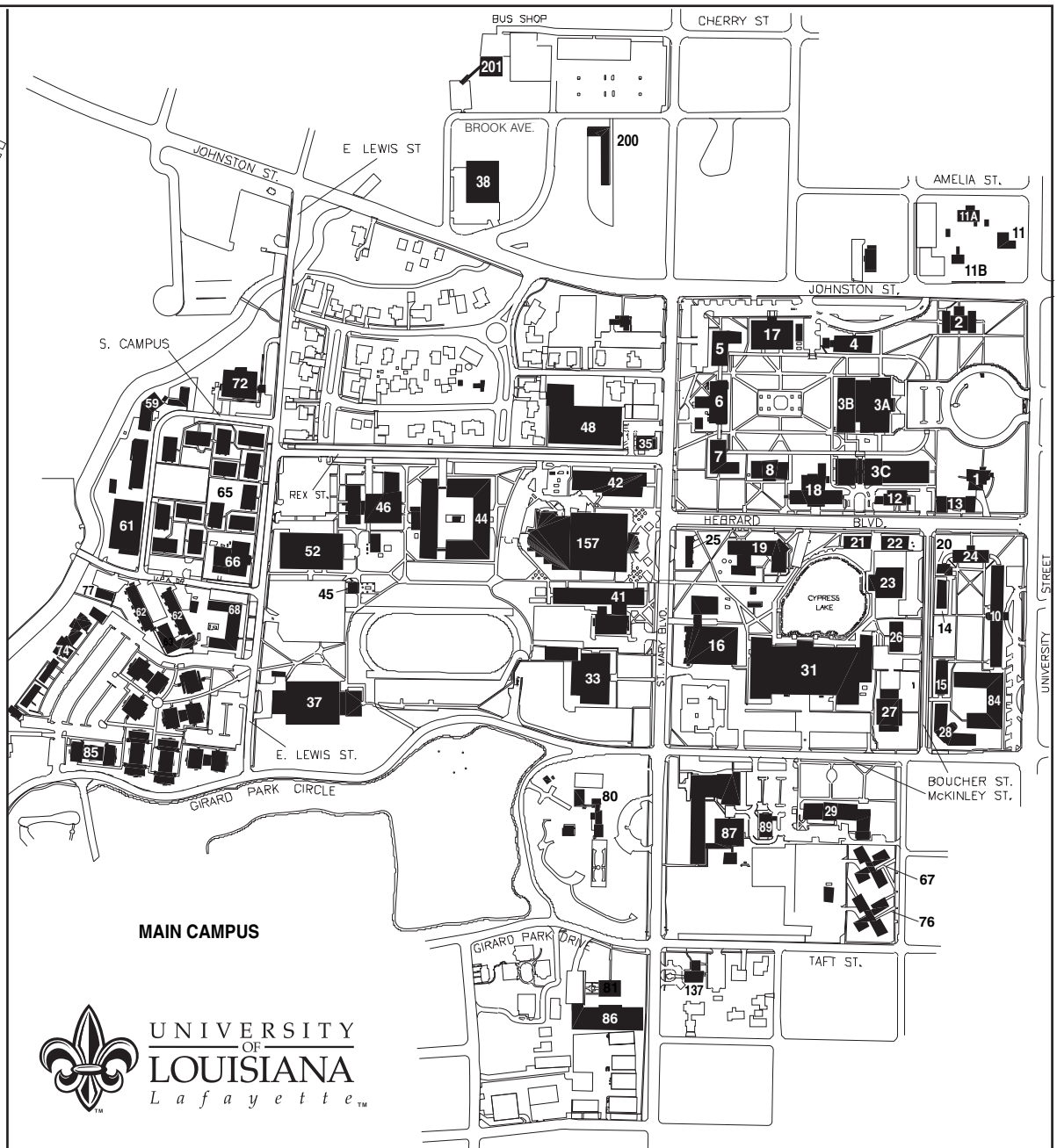
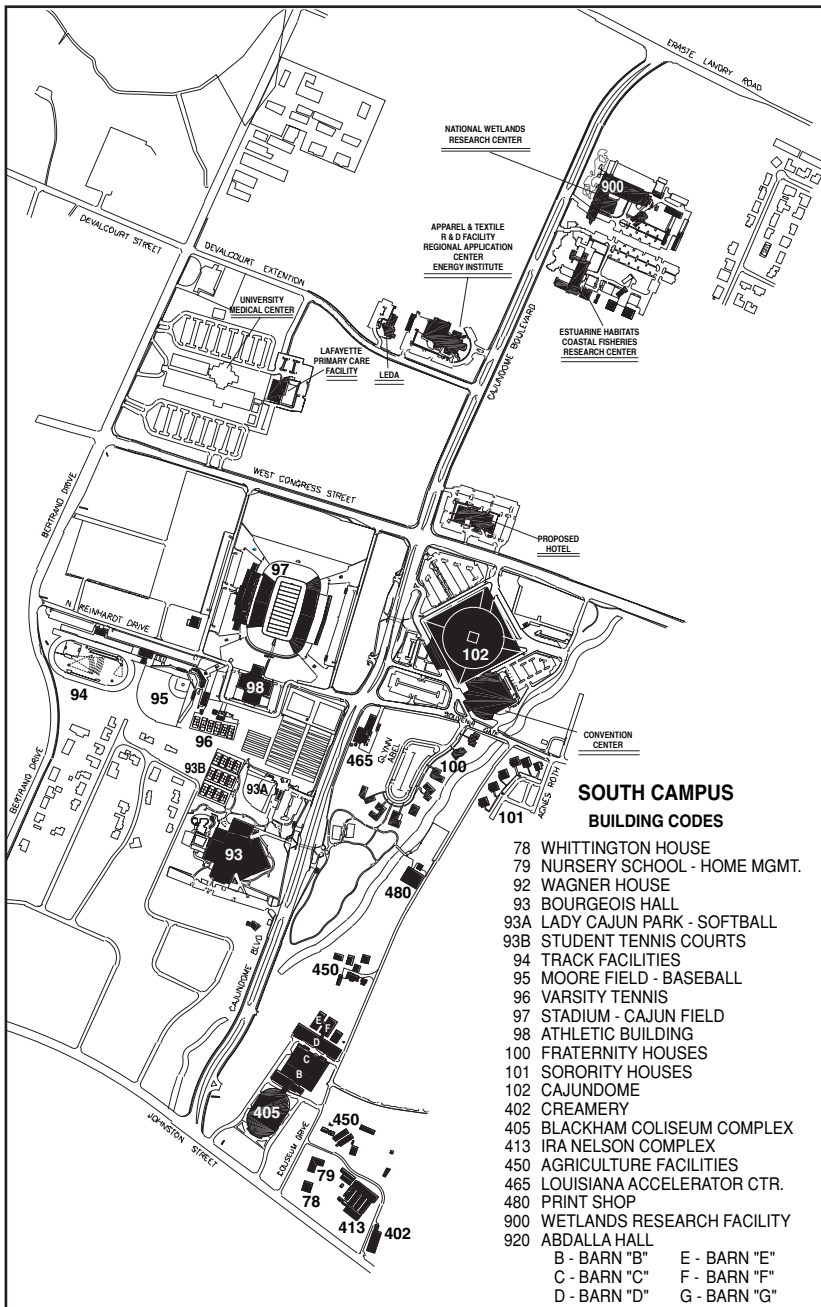
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