New Course Requests

A674 ANSC 687 Sensory Evaluation of Foods (2-2) Credit 3. Application of sensory science principles and practices to food systems including an understanding of discriminative, descriptive and consumer sensory techniques. Prerequisite(s): CHEM 222 or 228.

A677 CPSC 656 Computers and New Media (3-0) Credit 3. This class investigates the potential and realized impact of computers in the design of new media, explores the variety of relationships between authors and readers of interactive materials, and explores the influence of media design and content expressed. Prerequisite(s): Graduate Classification.

A676 ELEN 617 Advanced Signal Processing for Medical Imaging (3-0) Credit 3. This is a graduate-level course covering several advanced signal processing topics in medical imaging: multi-dimensional signal sampling & reconstruction, bio-signal generation & optimal detection, Fourier imaging, Radon transform-based tomographic imaging, multi-channel signal processing, as well as constrained reconstruction, rapid imaging, image segmentation, registration and analysis. Prerequisite(s): Approval of the instructor.

A675 ELEN 695 Introduction to Microelectromechanical Devices and Systems (3-0) Credit 3. The goal of this course is to provide the students with a broad overview of the past and current developments in the emerging area of MEMS (microelectromechanical systems). The first part of this course will discuss the fundamental working principles, designs and fabrication techniques. The second part will consist of several special topics, discussing the latest important applications in different fields. Prerequisite(s): Consent of instructor.

A678 ENTO 602 Insect Biodiversity and Biology (3-3) Credit 4. Biodiversity and biology of the orders and selected families of insects; order-level morphology, family-level natural history and identification; field trips and an insect collection provide experience with insect collecting methods, specimen preparation techniques and field biology. Prerequisite(s): 6 hours of biological sciences.

A679 HLTH 659 Writing for Health Educators (3-0) Credit 3. Provides one of the most essential skills for professionals in the health-related fields: writing: approaches writing beyond the commonly-held belief that the sole purpose of academic writing is communication of scientific data or “health-facts and information;” focus on writing with power for intervention effectiveness. Prerequisite(s): Graduate Student.

A681 KINE 613 Diversity in Sport Organizations (3-0) Credit 3. Examines an encompassing perspective of diversity within North American and international sport organizations; provides students with an analysis and understanding of the various ways that people within sport organizations can differ; treats issues of the non-dominant, historically under-represented elements of U.S. society, with an emphasis placed on racial and gender issues. Prerequisite(s): Graduate Student.

A684 RLEM 620 Ecological Restoration of Wetland and Riparian Systems (2-2) Credit 3. How wetland and riparian areas link terrestrial and aquatic systems and function hydrologically and ecologically within watersheds; integrated approaches for restoration of degraded wetland and riparian systems; improving water resources through vegetation management with a special interest in rangelands. Prerequisite(s): RENR 205 or equivalent and WFSC 428 or equivalent.

A685 SCEN 698 Writing for Publication (3-0) Credit 3. Writing in academic disciplines and settings. Writing for different audiences and purposes. Style; planning and development of journal
articles; grant proposals; correspondence; oral presentations; technical reports. Permission of departmental/college graduate advisor. Prerequisite(s): Advanced standing in master's/doctoral programs.

A682 STAT 665 Statistical Applications of Wavelets (3-0) Credit 3. This is a course on the use of wavelet methods in statistics. The course introduces wavelet theory, provides an overview of wavelet-based statistical methods. Topics include smoothing of noisy signals, estimation of function data and representation of stochastic processes. Some emphasis is given to Bayesian procedures. Prerequisite(s): STAT 611 or approval by the instructor.
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Animal Science

2. Course prefix, number and complete title ANSC 687 - Sensory Evaluation of Foods

3. Course description (not more than 50 words) Application of sensory science principles and practices to food systems including an understanding of discriminative, descriptive and consumer sensory techniques.

4. Prerequisite(s) Chem 222 or 228 Cross-listed with

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from ______ to _______. Cross-listed courses require the signatures of both department heads.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 489/689? ☑ Yes ☐ No If yes, how many times? ______ Indicate the number of students enrolled for each academic period it was taught. 05A-8

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

M.S., Ph.D. in Animal Science

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation)

<table>
<thead>
<tr>
<th>ANSC</th>
<th>687</th>
<th>SENSOR Y EVAL O F FOODS</th>
</tr>
</thead>
</table>

Lect. Lab SCH Subject Matter Content Code Admin. Unit Academic Year FICE Code
0 2 0 2 0 3 0 1 0 9 0 1 0 0 0 5 0 2 7 0 0 7 - 0 8 0 0 3 6 3 2

Do not complete shaded area.

Approval recommended by:

Head of Department Name: ________ Date: 8/17/06

Chair, College Review Committee Name: ________ Date: 8/17/06

Dean of College Name: ________ Date: 9/7/06

Submitted to Coordinating Board by:

Director of Academic Support Services Name: ________ Date: ________ Effective Date: ________

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-5/04

3 of 61 C
SYLLABUS
SENSORY EVALUATION OF FOODS
ANSC 487/687

Lecture 2 hours per week and Lab 2 hours per week: 1:50 to 3:50 MW  Room 300 Kleberg

COURSE DESCRIPTION

Sensory Evaluation of Foods. (2-2). Credit 3. Application of sensory science principles and practices to food systems including an understanding of discriminative, descriptive and consumer sensory techniques. Prerequisites: CHEM 222 or 228, Junior, Senior or Graduate Classification.

OBJECTIVES

Students will be able to:

1. Understand environmental, psychological and physiological factors that affect sensory verdicts
2. Understand the basic sensory principles for conducting discriminative, descriptive and consumer sensory tests and to be able to apply these principles to food products.
3. Understand how to manage, enter, analyze, and interpret sensory data.
4. Present sensory results in written and oral communication forms based on the results of data analyses.

LECTURER
Dr. Rhonda K. Miller
Room 310 Kleberg Center
rmiller@tamu.edu
845-3901 Office
690-6138 Home
TEXT BOOKS and REFERENCE MATERIALS- SUGGESTED


SCIENTIFIC JOURNALS

Journal of Food Science - Institute of Food Technologists (IFT)
Food Technology - IFT
Journal of Sensory Studies
Journal of Animal Science - American Society of Animal Science
Meat Science
Journal of Food Protection
Journal of Food Quality
Journal of Food Biochemistry
Journal of Food Texture
Journal of Food Technology
Journal of Science, Food and Agriculture

SOCIETIES

American Society of Testing Materials - ASTM - Subcommittee E-18
Institute of Food Technologists, Sensory Section
American Meat Science Association
AMERICANS WITH DISABILITIES ACT (ADA) POLICY STATEMENT

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building or call 845-1637.

ACADEMIC INTEGRITY AND HONESTY

It is the personal responsibility of each student to maintain the highest level of scholastic integrity at the university by refusing to participate in or tolerate any form of scholastic dishonesty. Additional information may be obtained from the Student Handbook or at the Handbook website http://www.tamu.edu/aggiehonor/philosophy.php

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information, please visit: www.tamu.edu/aggiehonor/.

AGGIE HONOR CODE

"An aggie does not lie, cheat or steal or tolerate those who do."

On all course work assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student: "On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."
Course Outline - Sensory Evaluation

PLAGIARISM

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

COPYRIGHT

The handouts used in this course may be copyrighted materials. "Handouts" refers to all materials generated for this class, which includes but are not limited to syllabi, in-class materials, and handouts. Because these materials may be copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

ATTENDANCE POLICY AND MAKE-UP EXAMS

Regular attendance is expected of all students. Anticipated absences should be cleared with the instructor prior to the absence. Emergency absences should be reported as soon as possible, e.g., serious illness, death, injury. Make-up exams and work will be allowed only under extenuating circumstances. If problems arise, please do not hesitate to contact the instructor.

AUDIT POLICY

Regular attendance is expected along with participation in lecture and laboratory sections. Exams must be taken.

OFFICE HOURS

Students are encouraged to see the instructor for individual conferences as needed. DO NOT be reluctant to schedule a conference. Defined office hours are not maintained by the instructor; however, the door is always open to students when the instructor is in the office. If you cannot contact the instructor during non-class hours, please leave a message with Ms. Chanda Kuhn, the secretary in 310 Kleberg, for the Instructor. Remember, it is your right as a student in this class to have conferences with the instructor when needed, do not hesitate to use this right.
EXAMINATIONS AND GRADING

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Discriminative Written Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Discriminative Oral Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Descriptive Written Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Descriptive Oral Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Consumer Written Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Consumer Oral Report</td>
<td>100 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100 points</td>
</tr>
<tr>
<td>Total Points</td>
<td>700 points</td>
</tr>
</tbody>
</table>

Students will be segmented into groups based on comparable classification and food emphasis. For example, a graduate student will be assigned to each group and will have responsibility for data analyses and interpretation. Each group will be assigned a sensory problem so that groups will be addressing sensory problems across food categories. Each group will independently conduct sensory evaluation for their food using the appropriate tests. Groups will be changed for each of the three sensory testing projects to strengthen student's ability to work in a group.

Data entry will be conducted in a Microsoft Excel Worksheet and data will be analyzed using SAS. The data analyses portion of the class will be conducted with assistance from the instructor. The interpretation of the analyses will be the responsibility of the students within the groups. Graduate students will be selected as leaders within each group and should lead on data entry, analyses and interpretation.

The written report will consist of up to 6 double-spaced, type-written pages (8x11 size paper) that will consist of Introduction, Materials and Methods, Results, and Conclusion sections written by the group. Additional tables and figures can be used to present data.

The oral presentation will consist of presenting the written report orally by the group. Oral presentations will consist of a presentation segment, 15 to 20 minutes, and a question and answer section. Oral presentations will be given using Microsoft PowerPoint. A projector and computer will be supplied for presenting.
**Course Outline - Sensory Evaluation**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-17</td>
<td>Introduction - Overview of Class and Description of Projects</td>
</tr>
<tr>
<td></td>
<td>Environmental and Testing Environmental Controls</td>
</tr>
<tr>
<td>1-22</td>
<td>Testing Room Conditions and Environmental Influences on Sensory</td>
</tr>
<tr>
<td></td>
<td>Verdicts</td>
</tr>
<tr>
<td>1-24</td>
<td>Psychological and Physiological Factors Influencing Sensory Verdicts</td>
</tr>
<tr>
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<td><strong>Discriminative Testing</strong></td>
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<tr>
<td>1-29</td>
<td>Basic Discriminative Sensory Tools: Trained versus Consumer Panelists</td>
</tr>
<tr>
<td>1-31</td>
<td>Selection of Discriminative Experiment and Overview of Testing</td>
</tr>
<tr>
<td></td>
<td>Requirements</td>
</tr>
<tr>
<td>2-5</td>
<td>Set Up for Discriminative Experiment</td>
</tr>
<tr>
<td>2-7</td>
<td>Conduct Discriminative Experiment</td>
</tr>
<tr>
<td>2-12</td>
<td>Enter Data and Analyze Data; Begin Report Writing</td>
</tr>
<tr>
<td>2-14</td>
<td>Report Writing of Experiment and Development of Oral Presentation</td>
</tr>
<tr>
<td>2-19</td>
<td><strong>Discriminative Testing Report and Presentations</strong></td>
</tr>
<tr>
<td>2-21</td>
<td>Descriptive Sensory Techniques</td>
</tr>
<tr>
<td>2-26</td>
<td>Selection and Training of Descriptive Sensory Panelists</td>
</tr>
<tr>
<td>2-28</td>
<td>Experimental Design Issues and Data Analyses</td>
</tr>
<tr>
<td>3-5</td>
<td>Selection of Discriminative Experiment and Overview of Testing</td>
</tr>
<tr>
<td></td>
<td>Requirements</td>
</tr>
<tr>
<td>3-7</td>
<td>Set Up for Discriminative Experiment</td>
</tr>
<tr>
<td>3-19</td>
<td>Enter Data and Analyze Data; Begin Report Writing</td>
</tr>
<tr>
<td>3-21</td>
<td>Report Writing of Experiment and Development of Oral Presentation</td>
</tr>
<tr>
<td>3-26</td>
<td><strong>Descriptive Testing Report and Presentations</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Consumer Evaluation</strong></td>
</tr>
<tr>
<td>3-28</td>
<td>Consumer Sensory Techniques</td>
</tr>
<tr>
<td>4-2</td>
<td>Selection on Consumer Panelists and Experimental Design Issues</td>
</tr>
<tr>
<td>4-4</td>
<td>Ballot Development</td>
</tr>
<tr>
<td>4-9</td>
<td>Selection of Consumer Experiment and Overview of Ballot Development</td>
</tr>
<tr>
<td>4-11</td>
<td>Set Up for Consumer Testing and Testing</td>
</tr>
<tr>
<td>4-16</td>
<td>Data Entry and Analyses; Begin Report Writing</td>
</tr>
<tr>
<td>4-18</td>
<td>Report Writing of Experiment and Development of Oral Presentation</td>
</tr>
<tr>
<td>4-23</td>
<td><strong>Consumer Testing Report and Presentation</strong></td>
</tr>
<tr>
<td>4-25</td>
<td>Multivariate Techniques Used in Sensory Analyses</td>
</tr>
<tr>
<td>4-30</td>
<td>Preference Mapping, Course Overview and Summary</td>
</tr>
<tr>
<td>5-7</td>
<td>3:30 to 5:30 Final Exam</td>
</tr>
</tbody>
</table>
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Computer Science

2. Course prefix, number and complete title CPSC 656 Computers and New Media

3. Course description (not more than 50 words) This class investigates the potential and realized impact of computers in the design of new media, explores the variety of relationships between authors and readers of interactive materials, and explores the influence of media design and content expressed.

4. Prerequisite(s) Graduate Classification Cross-listed with

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from _____ to _____.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 489/689? ☐ Yes ☑ No If yes, how many times? 2 Indicate the number of students enrolled for each academic period it was taught. 14, Spring 2006 & 17, Spring 2004

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   MCS, MS, PhD in Computer Science

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation) CPSC 656 COMPUTERS AND NEW MEDIA

    Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
    0 3 0 0 3 1 1 0 7 0 1 0 0 0 6 0 7 2 0 0 7 - 0 8 0 0 3 6 3 2

    Do not complete shaded area.

    Approval recommended by:

    Donald [Signature] 9/7/06
    Head of Department Date

    Chair, College Review Committee

    [Signature] 9/14/06
    Date

    Dean of College

    [Signature] 9/14/06
    Date

    Submitted to Coordinating Board by:

    [Signature] Date

    Director of Academic Support Services

    [Signature] Date

    Effective Date

RECEIVED
SEP 07 2006
N.K. ANAND
Number and Name of Course:  CPSC 656  Computers and New Media

Hours:  Theory  3  Practice  0  Total  3  Credits  3

Prerequisites:  Graduate Classification

Curricula requiring this course:  [ X ] None, it will be elective.

Description of Course (Concise statement of purpose or design.)
This class investigates the potential and realized impact of computers in the design of new media; explores the variety of relations between authors and readers of interactive materials; and explores the influence of media design on the content expressed.

Course Outline by Major Topics and Approximate Time for Each:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Th.</th>
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<tbody>
<tr>
<td>Basic Media Studies</td>
<td>3</td>
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</tr>
<tr>
<td>Basic Computer-Supported Cooperative Work</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Evolution of Media</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Immersion, Agency, Transformation</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Interaction and Storytelling</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Simulation, Competition, and Communication</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Use and Analysis of Existing Interactive Media</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Design of New Media</td>
<td>9</td>
<td></td>
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</tbody>
</table>

Grading: Term Paper = 25 %, Project = 35 %, Assignments = 25 %, Class Disc. = 15%
Total – 100%

Total Hours  42

Date:  June 15, 2006  Course Supervisor:  Frank Shipman

ABET Classification:  Science  Design  Math  Other

Laboratory Requirements:  Yes  or  No

Equipment Required:
Americans with Disabilities Act (ADA) Policy Statement

The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, the legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall or call 845-1637.

Copyrights

The handouts used in this course are copyrighted. By "Handouts" we mean all materials generated for this class, which include but are not limited to syllabi, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy such handouts, unless the author expressly grants permission.

Scholastic Dishonesty

As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of the person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules [http://student-rules.tamu.edu], under the section "Scholastic Dishonesty".

Academic Integrity Statement

"An Aggie does not lie, cheat, or steal or tolerate those who do."

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit:
http://www.tamu.edu/aggiehonor

On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student: "On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."
Texas A&M University
Departmental Request for a New Course
Undergraduate Graduate Professional
Submit original form and 25 copies. Attach a course syllabus to each.*

1. This course is submitted by the Department of Electrical and Computer Engineering

2. Course prefix, number and complete title of course: ELEN 617 Advanced Signal Processing for Medical Imaging

3. Course description (not more than 50 words): This is a graduate-level course covering several advanced signal processing topics in medical imaging: multi-dimensional signal sampling & reconstruction, bio-signal generation & optimal detection, Fourier imaging, Radon transform-based tomographic imaging, multi-channel signal processing, as well as constrained reconstruction, rapid imaging, image segmentation, registration and analysis.

4. Prerequisite(s) Approval of the instructor Cross-listed with
Cross-listed courses require the signature of both department heads.

5. Is this a variable credit course? □ Yes x No If yes, from _________ to _________

6. Is this a repeatable course? □ Yes x No If yes, this course may be taken _________ times. Will the course be repeated within the same semester/term? □ Yes x No

7. Has the course been taught as a 489/689? x Yes □ No If yes, how many times? _________

Indicate the number of students enrolled for each academic period it was taught: 2005 Spring, 15 students

8. This course will be:
   a. Required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. An elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography) B.S., M.S., or PhD in Electrical and Computer Engineering

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation) E L E N 6 1 7 A D V S I G P R O C M E D I M A G I N G

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Academic Year</th>
<th>FICE Code</th>
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<td>6</td>
<td>0 9 4 0 0 7</td>
<td>8 0 1 0 3 6 6</td>
</tr>
</tbody>
</table>

Do not complete shaded area.

Approval recommended by:

Head of Department Date 5/10/06

Chair, College Review Committee Date

Dean of College Date

Dean of College Date

Submitted to Coordinating Board by:

Director of Academic Support Services Date

Effective Date

*Attach a syllabus according to the guidelines on the web site www.tamu.edu/courseforms. To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737
ELEN 617 Advanced Signal Processing for Medical Imaging

This graduate-level course covers several advanced signal processing topics commonly encountered in medical imaging systems and applications, with a focus on those associated with magnetic resonance imaging (MRI). After taking this course, the students will learn how signals carrying biological information are detected and processed, as well as how images are formed and processed from such signals to provide improved representation quality and useful information. The course starts with reviews of some fundamental signal processing topics such as multidimensional signal sampling and reconstruction, signal generation and optimal detection, and multichannel signal detection and reconstruction. This will be followed by discussions on Fourier imaging principles, projection slice theorem, Fourier transform and Radon transform. Some image processing topics such as advanced image reconstruction, fast imaging, image segmentation and image registration will also be discussed.

Instructor: Jim Ji, 208A Zachry, (979) 458-1468 E-mail: jimji@tamu.edu

Office Hours:
208A Zachry, TU TR 5:30-7:00 PM or stop by any time when I am in the office. You may catch me in the Magnetic Resonance System Lab (http://www.ece.tamu.edu/~mrsl, (979) 4584521) at USB 109, if I’m not in Zachry 208A. Email me or see me after class to make an appointment.

Lectures:TBA

URL:
http://www.ece.tamu.edu/~mrsl Grades and notes will be posted on secure server on webct.tamu.edu. Use your neo id and passwd to get access.

Prerequisite:
Permission of the instructor.

Text:
2. 2. Notes and handouts

Other References:
1. 1. Liang & Lauterbur Principles of Magnetic Resonance Imaging, SPIE/IEEE, 1999
2. 2. Semmlow, Biosignal and biomedical image processing : MATLAB-based applications, Marcel Dekker, 2004
3. 3. Prince and Links, Medical Imaging Signals and Systems, Prentice Hall,
2004

*Journals:*
IEEE Transactions on Medical Imaging IEEE Engineering in Medicine and Biology Magazine IEEE Transactions on Image Processing (More on
http://www.ecc.tamu.edu/~mrl/JMMI_TAMU/links-journalsliteratures.htm)

*On-line e-book:*
Basics of MRI: http://www.cis.rit.edu/htbooks/mri/ (Lots more on
www.ismrm.org/mr_sites.htm) Hendee and Ritenour Medical Imaging Physics
(http://libcat.tamu.edu, click Electronic Resources)

*Topics:*
- Review of some basic math and physics 2
  1. Overview of medical imaging systems 2
     a. Systems and principles of MRI, CT, US, PET, and optical
        imaging
  2. Multidimensional signal processing 5
     a. Sampling and reconstruction in multiple dimension
     b. Lattice sampling and reconstruction
     c. Applications in medical imaging
  3. Multichannel and phased-array signal processing 5
     a. Sampling and reconstruction
     b. Parallel imaging in MRI
     c. Beam-forming in Ultrasound Imaging
  4. Tomographic imaging 4
     a. Projection-slice-theorem
     b. Random transform and back projection
     c. X-Ray computer tomography (CT)
  5. Fourier Imaging and MRI 8
     a. Signal generation, sampling and detection
     b. Image Reconstruction
  6. Constrained image reconstruction in MRI 6
     a. Data acquisition
     b. Model-based image reconstruction
     c. Projection-onto-convex set
  7. Medical image analysis 9
     a. Kernel-based interpolation
b. Image segmentation
   (ii) • Pixel classification
   (iii) • Region-based method
   (iv) • Deformable contour and volume model
   (v) • Segmentation based on intensity
   (vi) • Region merging

(8) c. Image registration
   (i) • Fourier domain method
   (ii) • Cross-correlation
   (iii) • Deformable registration
b) • Quantitative analysis: From image to information
   c) • Review and project presentation

Grading:
The final grade will be determined from the
weightings Exams = 20 %
Quiz = 15% HWs = 45% Project
= 20%

Guaranteed: 90-100 A, 80-89 B, 70-79 C, 60-69 D, Below 60 F. Any curve will lower
these ranges.

Homework and Projects:
The hw will be assigned approximately every other Thursday, which will typically be due
on the next next Thursday and must be handed in at the beginning of the class. The
lowest hw score will be dropped. NO LATE HW will be accepted except those covered
under the University Policies on Excused Absences. There will be a 10-minute quiz on
each Thursday. You will have an opportunity to present a literature review on advanced
signal processing for medical imaging to the class (project).

Test:
There will be two closed book exams. You are allowed to bring a two-sided 8.5 by 11-
inch handwritten note to the first test and two notes to the final exam. Midterm: March 3,
   Wed, 7-9pm (tentative) Final: May 10, Mon, 8-10am (tentative)

Aggie Honor Code:

   An Aggie does not lie, cheat or steal or tolerate those who do.


Students Needing Support Services:
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that
provides comprehensive civil rights protection for persons with disabilities. Among
other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Cain Hall, Rm. B118, or call 845-1637.

**Classroom Behavior:** Please be courtesy to your classmates and instructor. Setting your cellphone and beeper to mute mode is required in class.
Texas A&M University

Departmental Request for a New Course
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of Electrical & Computer Engineering

2. Course prefix, number and complete title: ELEN 695 Introduction to Microelectromechanical Devices and Systems

3. Course description (not more than 50 words): The goal of this course is to provide the students with a broad overview of the past and current developments in the emerging area of MEMS (microelectromechanical systems). The first part of this course will discuss the fundamental working principles, designs and fabrication techniques. The second part will consist of several special topics, discussing the latest important applications in different fields.

4. Prerequisite(s): Consent of instructor

Cross-listed with

5. Is this a variable credit course? □ Yes ☐ No If yes, from ________ to ________.

6. Is this a repeatable course? □ Yes ☐ No If yes, this course may be taken ________ times. Will the course be repeated within the same semester/term? □ Yes ☐ No

7. Has this course been taught as a 489/689? □ Yes ☐ No If yes, how many times? ________ Indicate the number of students enrolled for each academic period it was taught. ________

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

M.S., MENG, Ph.D. in electrical & computer engineering

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix: ELEN
    Course #: 695
    Title (exclude punctuation): Introduction to Microelectromechanical Devices and Systems

Lect. Lab SCH Subject Matter Content Code Admin. Unit Acad. Year FICE Code
0 3 0 0 0 3

Do not complete shaded area.

Approval recommended by:

Head of Department Date: 6/22/06

Chair, College Review Committee Date: 9/11/06

Dean of College Date: 9/11/06

Submitted to Coordinating Board by:

Director of Academic Support Services Date: Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-5/04

18 of 61 C
Introduction to Microelectromechanical Devices and Systems

Instructor
Jun Zou, Office: 216M ZEC, Phone: 862-1640, Email: junzou@ee.tamu.edu

Classroom and Meeting Time
TBA

Office Hours
Email for an appointment.

Prerequisites
- Undergraduate students with senior standing or graduate students in College of Engineering, or consent with the instructor
- Working knowledge of electronic materials and mechanics (required background information will be reviewed in class)

Course Objectives (to help the students)
- To understand and be able to use common working principles of MEMS
- To understand major fabrication techniques used in the MEMS field
- To gain deep understanding of inter-related design/material/fabrication issues for MEMS
- To gain broad perspective of MEMS applications (science, technology and commercialization) and to promote creative thinking in new ones

Tentative Course Outline
Introduction
History and future trend of MEMS
Introduction of microfabrication and micromachining
Review of electromechanical concepts
Electrostatic sensors and actuators
Thermal sensors and actuators
Piezoresistive sensors
Piezoelectric sensors and actuators
Magnetic actuators and sensors
MEMS layout software introduction
Bulk micromachining
Surface micromachining
Midterm exam review
RF MEMS devices
Microfluidic devices and systems
Micro optical devices and systems
Micromachined scanning probes and scanning probe microscopy
Reading Day
Final project due

Class Materials
- Class notes (will be able to download from class website)
- Textbook
  o Chang Liu, Foundations of MEMS, Pearson/Prentice Hall, not published yet but will be available to students soon.
- Suggested reference books
- Website for announcement and updates, http://www.ece.tamu.edu/~junzou/
- Collection of conference and journal articles

Grading
30% Homework (assigned on Friday due on next)
10% Mini-project of device design with MEMS layout software
35% Midterm Exam
35% Teamed final project and presentation
Americans with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, or call 845-1637.

Copyrights

The handouts used in this course are copyrighted. By "handouts" we mean all materials generated for this class, which include but are not limited to syllabi, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless the author expressly grants permission.

Scholastic Dishonesty

As commonly defined, plagiarism consists of passing off as one's own the ideas, work, writings, etc., that belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules [http://student-rules.tamu.edu/], under the section "Scholastic Dishonesty."
Texas A&M University
Departmental Request for a New Course
Undergraduate • Graduate • Professional
Submit original form and 25 copies. Attach a course syllabus to each.*

1. This request is submitted by the Department of  Entomology

2. Course prefix, number and complete title  ENTO 602 - Insect Biodiversity and Biology

3. Course description (not more than 50 words)  Biodiversity and biology of the orders and selected families of insects; order-level morphology, family-level natural history and identification; field trips and an insect collection provide experience with insect collecting methods, specimen preparation techniques and field biology.

4. Prerequisite(s)  6 hours of biological sciences  Cross-listed with  Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course?  □ Yes  □ No  If yes, from ______ to ______.

6. Is this a repeatable course?  □ Yes  □ No  If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term?  □ Yes  □ No

7. Has this course been taught as a 489/689?  □ Yes  □ No  If yes, how many times? 2  Indicate the number of students enrolled for each academic period it was taught. 05A - 6; 06A - 5

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

M.S. & Ph.D in Entomology, M.Ag in Economic Entomology or Plant Protection

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix  Course #  Title (exclude punctuation)
    ENTO  602  Ins  Biodiver  Biol

    Lect.  Lab  SCH  Subject Matter Content Code  Admin. Unit  Acad. Year  FICE Code
    0  3  0  3  O  4  0  1  0  3  6  6

Do not complete shaded area.

Approval recommended by:

Head of Department  Date

Chair, College Review Committee  Date

Dean of College  Date

Submitted to Coordinating Board by:

Director of Academic Support Services  Date  Effective Date

* Attach a syllabus according to the guidelines on the Internet site www.tamu.edu/admissions/oaas. To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-10/99

21 of 61 C
Entomology 602
Insect Biodiversity and Biology

Basic Course Information

Instructor: Dr. John D. Oswald, Associate Professor & Curator, Department of Entomology
Office: 216A Heep Center (inside Heep 216, the Insect Collection room)
Contacts: j-oshwald@tamu.edu; 979-862-3507 (office phone); 979-845-6305 (fax)
Office Hours: M 12:30 to 1:45 (216A Heep Center) [feel free to come see me anytime]
689 Lecture: MWF 11:30 to 12:20 (205 Heep Center)
689 Lab: M 1:50 to 4:40 (205 Heep Center)
Lab TA: TBA


Web Sites: Course: http://biodivgrad.tamu.edu
Tiara Biodiversity Project: http://www.csdl.tamu.edu/tiara/

Optional: Lecture Outlines (Synoptic outlines of many of the course lectures are available. I recommend that you take a look at these outlines to see if they might help you organize your lecture notes. The outlines can be downloaded from the course web site and printed as needed.)

Habitat Guide (This guide contains a list of all of the insect families that are known to occur in America north of Mexico, with indications of which ones are found in Texas, and general information on where to find them and how to collect them. This document contains some subtle shading in a large table, so it doesn’t photocopy well. You should download a copy of the pdf version of this file from the course website.)

Prerequisites: 6 hours of biological sciences
Corequisites: None

Course Objectives

Insect Biodiversity and Biology provides an introduction to the orders and most important families of insects. Lectures cover the morphology unique to each order and the biology and natural history of selected families. Laboratories emphasize identification of orders and selected families. A collection of insects identified to the family level provides an introduction to the methods of collecting and preparing insect specimens, and additional practice in insect identification.

After completing this class you should:
- be able to sight identify all insect orders and approximately 150 North American families
- be able to key to family most North American insects
- know the basic biologies of approximately 150 North American families
- know in general where to find these families in the field, and the most appropriate method(s) to use in collecting them
- be able to properly preserve and prepare insects for scientific study and vouchers
Course Emphases

LECTURE
- Insect classification, diagnostic characters and taxon names
- Insect biologies, life histories, behaviors, habitats, etc.

LAB
- Insect identification (by “sight” and by “key”)
- Diagnostic traits of selected insect families
- Insect collecting methods and techniques
- Insect preserving, mounting and labeling methods and techniques
- documentation

Grading Point System

<table>
<thead>
<tr>
<th></th>
<th>points</th>
<th>%</th>
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<tbody>
<tr>
<td>Lecture Exams</td>
<td>450</td>
<td>53</td>
</tr>
<tr>
<td>Exams (3 @ 100 points each)</td>
<td>300</td>
<td>35</td>
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<tr>
<td>Lecture Final (comprehensive)</td>
<td>150</td>
<td>18</td>
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<tr>
<td>Lab Exams</td>
<td>235</td>
<td>28</td>
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<tr>
<td>Quizzes (7 @ 5 points each)</td>
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<td>4</td>
</tr>
<tr>
<td>Exams (2 @ 50 points each)</td>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>Lab Final (comprehensive)</td>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>Insect Collection</td>
<td>161</td>
<td>19</td>
</tr>
<tr>
<td>Preview Collection</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Diversity Collection</td>
<td>*140</td>
<td>17</td>
</tr>
</tbody>
</table>

846 = 846 100 = 100

* The Final Collection is open-ended – there is no fixed maximum point value for it. An “A” collection will contain 126-140 (or more) points. For detailed information on how collection points are calculated see the Diversity Collection Grading Sheet in the Collection Guide.

Letter Grades*

A (90-100%); B (80-<90%); C (70-<80%); D (60-<70%); F (<60%)

* Students meeting these percentiles are guaranteed the indicated grade. The instructor, however, reserves the right to lower the percentiles required to achieve each grade.

Exams
- Regular semester lecture exams will emphasize previously untested material – that is, although they are not intended to be fully comprehensive, they may contain minor elements from previously tested material; lab exams will be at least partially comprehensive.
- Finals will be comprehensive.
- Lab material may, but will not typically, be tested in lecture exams, and vice versa.
- Make-up exams will be possible only under very exceptional circumstances.
- Several sample lecture exams are posted on the course web site. Use these to see the kinds of questions will be on the exams. Typical questions will be: fill-in-the-blank, short answer, essay, essay correction, labeling and diagramming.
- Lab exam emphasis will be on sight identification, keying and structure and function recognition.
• Lab quizzes will consist of several (ca. 5) questions, typically emphasizing identification and structure and function recognition.

Attendance Policy
• I will call role until I learn the names of all the students in the class. I expect all students to attend all lectures and labs. The course moves at a rapid pace and failure to attend lectures and labs will cause one to fall behind very rapidly.
• There is no assigned seating. However, I would appreciate it if you would sit in the same place for the first several weeks until I get to know your names.
• Student rules governing class attendance can be found on the Texas A&M University website under Student Rules at http://student-rules.tamu.edu/. Make-up exams in Entomology 689 lab and lecture will only be given under EXCEPTIONAL circumstances. If you think your circumstances are exceptional, please discuss them with me.

Americans with Disabilities Act (ADA) Policy Statement
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If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules (http://student-rules.tamu.edu/), under the section “Scholastic Dishonesty”.

The above schedules and procedures are subject to change in the event of extenuating circumstances.
# Lecture Schedule*

## JANUARY

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<th>day</th>
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<tbody>
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<td>1</td>
<td>18</td>
<td>1</td>
<td>Introduction to Course</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>2</td>
<td>Introduction to Hexapoda; Protura, Collembola</td>
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<tr>
<td>2</td>
<td>22</td>
<td>3</td>
<td>Diplura, Microcoryphia, Thysanura</td>
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<tr>
<td>2</td>
<td>24</td>
<td>4</td>
<td>Ephemeroptera</td>
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<tr>
<td>2</td>
<td>26</td>
<td>5</td>
<td>Odonata</td>
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<td>3</td>
<td>29</td>
<td>6</td>
<td>Orthoptera</td>
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<tr>
<td>3</td>
<td>31</td>
<td>7</td>
<td>Grylloblattodea, Phasmatodea, Mantodea</td>
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<td>Mantophasmatodea, Isoptera</td>
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<td>5</td>
<td>9</td>
<td>Blattodea, Dermaptera, Embiidina</td>
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<td>4</td>
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<td>Lecture Exam I</td>
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<td>4</td>
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<td>Plecoptera, Zoraptera</td>
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<td>Pscoptera, Phthiraptera (Lab Exam I)</td>
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<td>5</td>
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<td>Thysanoptera</td>
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## MARCH

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<td>Neuroptera II</td>
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<td>23</td>
<td>Coleoptera II</td>
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<td>12</td>
<td>--</td>
<td>Spring Break – No class</td>
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<tr>
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<td>--</td>
<td>Spring Break – No class (!! Collect Lots of Insects !!)</td>
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<tr>
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<td>16</td>
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<td>Spring Break – No class</td>
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<td>10</td>
<td>19</td>
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<td>Coleoptera IV</td>
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<td>26</td>
<td>Coleoptera V</td>
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<tr>
<td>11</td>
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<td>Strepsiptera, Diptera I</td>
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<tr>
<td>11</td>
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<td>Diptera II</td>
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## APRIL

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<td>Lecture Exam III</td>
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<td>13</td>
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<td>34</td>
<td>Reading Day – No class</td>
</tr>
</tbody>
</table>

*PC - \Ento 602\First Day Docs\Syllabus, 01, Lecture Schedule.doc*
### Entomology 602
### Insect Biodiversity and Biology

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Class</th>
<th>Description</th>
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<tbody>
<tr>
<td>14</td>
<td>16 M</td>
<td>35</td>
<td>Hymenoptera II</td>
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<tr>
<td>14</td>
<td>18 W</td>
<td>36</td>
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<tr>
<td>14</td>
<td>20 F</td>
<td>37</td>
<td>Hymenoptera IV</td>
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<tr>
<td>15</td>
<td>23 M</td>
<td>38</td>
<td>Trichoptera (Lab Final)</td>
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<tr>
<td>15</td>
<td>25 W</td>
<td>39</td>
<td>Lepidoptera I</td>
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<tr>
<td>15</td>
<td>27 F</td>
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<tr>
<td>16</td>
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**MAY**

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<tbody>
<tr>
<td>16</td>
<td>U</td>
<td>42</td>
<td>Lepidoptera IV; Redefined day, attend Friday classes; Last day of lecture</td>
</tr>
<tr>
<td>16</td>
<td>W</td>
<td></td>
<td>Reading Day – No class</td>
</tr>
<tr>
<td>17</td>
<td>W</td>
<td></td>
<td>Final Exam (10:30-12:30 Heep 205)</td>
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*Changes to this schedule may be required during the semester.*
# Entomology 602
## Insect Biodiversity and Biology

**Laboratory Schedule***

### January

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Lab</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>22 M</td>
<td></td>
<td>Lab 1</td>
<td>Introduction, Lab Equipment, Morphology Review, Keys and Keying</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><em>Taxa:</em> Protura, Collombula, Diplura, Microcoryphia, Thysanura, Ephemeroptera, Odonata</td>
</tr>
<tr>
<td>29 M</td>
<td></td>
<td>Lab 2</td>
<td><strong>Quiz 1</strong> (on lab 1); <em>Topics:</em> Lab Kits, Collecting Methods, Pinning and Pointing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Taxa:</em> Mantodea, Grylloblattodea, Phasmatodea, Orthoptera, Blattodea, Isoptera</td>
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### February

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Lab</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 M</td>
<td></td>
<td>Lab 3</td>
<td><strong>Quiz 2</strong> (on lab 2); <em>Topics:</em> Spreading, Label Making</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><em>Taxa:</em> Dermaptera, Embiidina, Plecoptera, Psocoptera, Zoraptera, Phthiraptera, Thysanoptera</td>
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<tr>
<td>12 M</td>
<td></td>
<td>Lab 4</td>
<td><strong>Lab Exam I</strong> (covers Labs 1-3)</td>
</tr>
<tr>
<td>19 M</td>
<td></td>
<td>Lab 5</td>
<td><strong>Preview Collection I</strong>; <em>Taxa:</em> Hemiptera (I)</td>
</tr>
<tr>
<td>26 M</td>
<td></td>
<td>Lab 6</td>
<td><strong>Quiz 3</strong> (on lab 5); <em>Taxa:</em> Hemiptera (II), Neuroptera</td>
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### March

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<td><strong>Quiz 4</strong> (on lab 6); <em>Taxa:</em> Strepsiptera, Coleoptera (I)</td>
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<td><strong>Quiz 5</strong> (on lab 7); <strong>Preview Collection II</strong>; <em>Taxa:</em> Coleoptera (II), Siphonaptera, Mecoptera, Diptera (I)</td>
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### April

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<td>9 M</td>
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<td>Lab 11</td>
<td><strong>Quiz 6</strong> (on lab 10); <em>Taxa:</em> Hymenoptera (II), Trichoptera</td>
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<td>16 M</td>
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<td>Lab 12</td>
<td><strong>Quiz 7</strong> (on lab 11); <strong>Preview Collection III</strong>; <em>Taxa:</em> Lepidoptera</td>
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<td>23 M</td>
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<td>Lab 13</td>
<td><strong>Final Lab Exam</strong> (Comprehensive; approx. 50% on labs 1-8, 50% on labs 10-13)</td>
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<table>
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<tr>
<th>Date</th>
<th>Day</th>
<th>Lab</th>
<th>Insect Collections Due</th>
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<tr>
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<td>Lab 14</td>
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* A 10% penalty will be assessed for turning in your collection late. |

### May

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<td>(5:00 PM in 205 Heep Center)</td>
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*!!NOTE!! Failure to clear the return of your Lab Kit materials with the Ento 689/301 TA before final grades are due at the registrar’s office you will result in an Incomplete for the course.*

---

*Minor changes to this schedule may be required during the semester.*
List of Orders & Families to be Covered in Lab*

**Lab #1 (18 families)**

**Protura**  
Eosentomidae

**Collembola**  
Hypogastruridae  
Isotomidae  
Sminthuridae

**Diplura**  
Japygidae

**Microcoryphia**  
Machilidae

**Thysanura**  
Lepismatidae

**Ephemeroptera**  
Baetidae [ug demo]  
Caenidae  
Ephemeridae  
Heptageniidae  
Polymitarcyidae [ug demo]

**Odonata**  
Gomphidae  
Aeshnidae  
Libellulidae  
Calopterygidae  
Lestidae [ug demo]  
Coenagrionidae

**Lab #2 (18 families)**

**Orthoptera**  
Acrididae  
Tettigidae  
Tridactylidae [g only]  
Stenopelmatidae [g only]  
Rhaphidophoridae [ug demo]  
Tettigonidae  
Gryllidae  
Gryllotalpidae

**Phasmatodea**  
Pseudophasmatidae  
Heteronemidae [ug demo]

**Grylloblattodea**  
Grylloblattidae [g only]

**Dermoptera**  
Anisolabididae  
Labiduridae  
Forficulidae

**Plecoptera**  
Perlidae  
Nemouridae

**Embiidina**  
Aniscentubiidae

**Zoraptera**  
Zorotypidae

**Lab #3 (17 families)**

**Isoptera**  
Rhinotermitidae  
Termitidae

**Mantodea**  
Mantidae

**Blattodea**  
Blattidae  
Polyphagidae  
Blattellidae

**Thysanoptera**  
Phlaeothripidae  
Acolothripidae  
Thripidae [ug demo]

**Psocoptera**  
Liposcelididae  
Psocidae [ug demo]

**Phthiraptera**  
Menoponidae  
Philopteridae [g only]  
Trichodectidae  
Linognathidae [ug demo]  
Pediculidae  
Phthiridae

**Lab #4 (0 families)**

**First Lab Exam** (mostly over Labs 1-3)

**Lab #5 (20 families)**

**Preview Collection I Due**

**Hemiptera**  
Veliidae  
Gerridae  
Belostomatidae  
Corixidae  
Notonectidae [ug demo]  
Reduviidae  
Miriidae  
Tingidae  
Anthocoridae [ug demo]  
Cimicidae [ug demo]  
Pentatomidae  
Scutelleridae  
Berytidae [g only]  
Rhyparochromidae [ug demo]  
Lygaeidae  
Geocoridae [ug demo]  
Alydidae [ug demo]  
Coreidae  
Cicadidae  
Membracidae
List of Orders & Families to be Covered in Lab*

Lab #6 (18 families)
Hemiptera
- Cicadellidae
- Cercopidae
- Delphacidae
- Cixiidae
- Flatidae [g only]
- Psyllidae
- Aleurodidae
- Aphididae
- Pseudococcidae
- other scales [g/ug demo]

Neuroptera
- Sialidae [g only]
- Corydalidae
- Raphidioptera
- Coniopterygidae [g only]
- Mantispidae
- Hemerobiidae
- Chrysopidae
- Myrmecocystidae
- Ascalaphidae [g demo]

Lab #7 (20 families)
Strepsiptera
- Myrmecocea [g only]

Coleoptera
- Carabidae
- Gyrinidae
- Dytiscidae
- Hydrophilidae
- Histeridae [g only]
- Silphidae [ug demo]
- Staphylinidae
- Geotrupidae [ug demo]
- Scarabaeidae
- Buprestidae
- Elateridae
- Lampyridae
- Cantharidae
- Dermestidae
- Cleridae
- Coccinellidae
- Mordellidae [g only]
- Zopheridae [ug demo]
- Tenebrionidae

Lab #8 (17 families)
Preview Collection II Due
Coleoptera
- Meloidae
- Cerambycidae
- Chrysomelidae
- Curculionidae

Siphonaptera
- Pulicidae

Mecoptera
- Panorpidae
- Bittacidae [g only]

Diptera
- Tipulidae
- Chironomidae
- Culicidae
- Simuliidae
- Bibionidae [ug demo]
- Cecidomyiidae [ug demo]
- Stratiomyiidae
- Tabanidae
- Asilidae
- Bombyliidae

Lab #9 (0 families)
Second Lab Exam (mostly over Labs 5-8)

Lab #10 (18 families)
Diptera
- Dolichopodidae
- Syrphidae
- Anthomyiidae [ug demo]
- Calliphoridae
- Fanniidae [ug demo]
- Hippoboscidae
- Muscidae
- Sarcophagidae
- Scathophagidae
- Tachinidae
- Tephritidae
- Ulidiidae [ug demo]
- Sciomyzidae
- Chloropidae
- Drosophilidae

Hymenoptera
- Argidae [g only]
- Tenthredinidae
- Sirtidae [ug demo]

!! Spring Break !!
List of Orders & Families to be Covered in Lab*

Lab #11 (18 families)

Hymenoptera
  Evaniidae [ug demo]
  Braconidae
  Ichneumonidae
  Chalcididae
  Cynipidae
  Diapriidae
  Scelionidae [g only]
  Chrysididae
  Sphecidae
  Halictidae
  Megachilidae
  Apidae
  Tiphidae [g only]
  Mutillidae
  Pompilidae
  Scoliidae [ug demo]
  Vespidae
  Formicidae

Lab #12 (18 families)

Preview Collection III Due
Trichoptera
  Hydropsychidae
  Leptoceridae
Lepidoptera
  Yponomeutidae [g only]
  Gelechiidae
  Sesiid [g only]
  Tortricidae
  Pterophoridae [ug demo]
  Pyralidae
  Hesperiidae
  Papilionidae [ug demo]
  Pieridae
  Lycaenidae
  Nymphalidae
  Geometridae
  Saturniidae
  Sphingidae
  Noctuidae
  Arctiidae

Lab #13
Final Lab Exam (comprehensive)

Lab #14
Collections Due
Lab Kit Returns Due

* Changes to this schedule may be required during the semester.
## Entomology 602
### Insect Biodiversity and Biology

You are responsible for knowing all of the scientific and “common” names on the following taxon list, together with any others discussed in lecture. Use the following list as a study guide to help learn the names of most of the taxa that will be treated in lecture and lab. The stressed syllable of scientific names is accented (after Borror et al. 1989). Acute accents (á, é, í, ó, ú, ý) indicate soft vowels, grave accents (ã, ê, ì, ô, ù) indicate hard vowels.

### Scientific & “Common” Names List

<table>
<thead>
<tr>
<th>Order (approx. # Naeartic species)</th>
<th>Suborder / Superfamily</th>
<th>Family</th>
<th>“Common” name</th>
<th>Textbook Chapter</th>
<th>page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protura (73)</td>
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<td>Eosentomidae</td>
<td>proturans</td>
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<tr>
<td></td>
<td></td>
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<td>“(or eosentomids)”</td>
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<td>Colliebola (820)</td>
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<td>Hypogastruridae</td>
<td>springtails</td>
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<tr>
<td></td>
<td></td>
<td>Isotomidae</td>
<td>elongate-bodied springtails</td>
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<tr>
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<td>Entomobryidae</td>
<td>smooth springtails</td>
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<tr>
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<td></td>
<td>Sminthuridae</td>
<td>slender springtails</td>
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<tr>
<td></td>
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<td>globular-bodied springtails</td>
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<tr>
<td>Diplura (125)</td>
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<td>Japygidae</td>
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<td>earwig-like diplurans</td>
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<td>Microcorhyphia (24)</td>
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<td>Machilidae</td>
<td>jumping bristletails</td>
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<td>rock bristletails</td>
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<td>Nicoletiidae</td>
<td>thysanurans</td>
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<td>Nicoletids</td>
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<td>Lepismatidae</td>
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<td>Ephemeroptera (600)</td>
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<td>Caenidae</td>
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<tr>
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<td>Ephemeridae</td>
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<td>Tettigidae</td>
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<td>Tettigonidae</td>
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<td>Labidúridae</td>
<td>striped earwigs</td>
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<tr>
<td>Forficúlidae</td>
<td>European and spine-tailed earwigs</td>
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<td>Termítidae</td>
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<td>Polyphágidae</td>
<td>desert cockroaches</td>
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<td>Blattéllidae</td>
<td>German cockroaches</td>
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<tr>
<td><strong>Hemiptera (11,300)</strong></td>
<td>----</td>
<td>22</td>
<td>268</td>
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</tr>
<tr>
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<td>Lepidóptera (11,700)</td>
<td>butterflies &amp; moths</td>
<td>30 571</td>
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<tr>
<td></td>
<td>Yponomeutidae</td>
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<td>&quot; 607</td>
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<td></td>
<td>Gelechiidae</td>
<td>gelechiid moths</td>
<td>&quot; 610</td>
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<td></td>
<td>Sessidae</td>
<td>clearwing moths</td>
<td>&quot; 612</td>
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<tr>
<td></td>
<td>Cossidae</td>
<td>carpenter and leopard moths</td>
<td>&quot; 613</td>
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<tr>
<td></td>
<td>Tortricidae</td>
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<td>&quot; 613</td>
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<tr>
<td></td>
<td>Pterophoridae</td>
<td>plume moths</td>
<td>&quot; 616</td>
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<tr>
<td></td>
<td>Pyralidae</td>
<td>pyralid moths</td>
<td>&quot; 617</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Hesperiidae</td>
<td>skippers</td>
<td>&quot; 619</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Papilionidae</td>
<td>swallowtails &amp; parnassians</td>
<td>&quot; 620</td>
<td></td>
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<tr>
<td></td>
<td>Pieridae</td>
<td>whites, sulphurs &amp; orange-tips</td>
<td>&quot; 621</td>
<td></td>
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<tr>
<td></td>
<td>Lycaenidae</td>
<td>coppers, hairstreaks, blues &amp; metalmarks</td>
<td>&quot; 622</td>
<td></td>
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<tr>
<td></td>
<td>Nymphalidae</td>
<td>brush-footed butterflies</td>
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### Family List (continued)

**Order (# Nearctic species)**

**Suborder / Superfamily**

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<tr>
<td>Geometridae</td>
<td>measuringworms, loopers</td>
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<td>Saturniidae</td>
<td>giant silkworm moths</td>
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<td>Sphingidae</td>
<td>sphinx or hawk moths</td>
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<td>Arctiidae</td>
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<td>Pulicidae</td>
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<td>Mecóptera (83)</td>
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<td>Panorpidae</td>
<td>common scorpionflies</td>
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<td>666</td>
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<tr>
<td>Bittacidae</td>
<td>hangingflies</td>
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<td>666</td>
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<td>Strepsiptera (91)</td>
<td>twisted-wing parasites</td>
<td>33</td>
<td>669</td>
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<td>Diptera (19,800)</td>
<td>flies</td>
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<td>Nematocera</td>
<td>long-horned flies</td>
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<td>Tipulidae</td>
<td>crane flies</td>
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<td>Chironomidae</td>
<td>midges</td>
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<td>Culicidae</td>
<td>mosquitoes</td>
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<td>Simuliidae</td>
<td>black flies</td>
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<td>Bibionidae</td>
<td>march flies</td>
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<td>Cecidomyiidae</td>
<td>gall midges or gall gnats</td>
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<td>Brachycera</td>
<td>short-horned flies</td>
<td>&quot;</td>
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<td>Stratiomyidae</td>
<td>soldier flies</td>
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<td>Tabanidae</td>
<td>horse &amp; deer flies</td>
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<td>Asilidae</td>
<td>robber &amp; grass flies</td>
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<td>Bombyliidae</td>
<td>bee flies</td>
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<tr>
<td>Empididae</td>
<td>dance flies</td>
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<td>Dolichopodidae</td>
<td>long-legged flies</td>
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<tr>
<td>Syrphidae</td>
<td>hover or flower flies</td>
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<td>728</td>
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<tr>
<td>Calyptratae</td>
<td>calypterate muscid flies</td>
<td>&quot;</td>
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<tr>
<td>Anthomyiidae</td>
<td>anthomyiid flies</td>
<td>&quot;</td>
<td>729</td>
</tr>
<tr>
<td>Calliphoridae</td>
<td>blow flies</td>
<td>&quot;</td>
<td>729</td>
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<tr>
<td>Hippoboscidae</td>
<td>louse and bat flies</td>
<td>&quot;</td>
<td>731</td>
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<td>Muscidae</td>
<td>muscid flies</td>
<td>&quot;</td>
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<td>Sarcophagidae</td>
<td>flesh flies</td>
<td>&quot;</td>
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<td>Scathophagidae</td>
<td>dung flies</td>
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<td>Tachinidae</td>
<td>tachinid flies</td>
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<td>Acalyptratae</td>
<td>acalyptrate muscid flies</td>
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<td>Tephritidae</td>
<td>fruit flies</td>
<td>&quot;</td>
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<td>Sciomyzidae</td>
<td>marsh flies</td>
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<td>739</td>
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<tr>
<td>Drosophilidae</td>
<td>pomace or small fruit flies</td>
<td>&quot;</td>
<td>741</td>
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<tr>
<td>Chloropidae</td>
<td>grass flies</td>
<td>&quot;</td>
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There are approximately 96,000 known species of living insects and entognathous hexapods in America north of Mexico.
Texas A&M University  
Departmental Request for a New Course  
Undergraduate • Graduate • Professional  
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of [Health & Kinesiology]  

2. Course prefix, number and complete title: HLTH 659 Writing for Health Educators  

3. Course description (not more than 50 words): Provides one of the most essential skills for professionals in the health-related fields: writing. Approaches writing beyond the commonly-held belief that the sole purpose of academic writing is communication of scientific data or "health-facts and information"; focus on writing with power for intervention effectiveness.

4. Prerequisite(s) [Graduate Student]  

5. Is this a variable credit course? □ Yes □ No  
   If yes, from _______ to _______.  

6. Is this a repeatable course? □ Yes □ No  
   If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? □ Yes □ No  

7. Has this course been taught as a 489/689? □ Yes □ No  
   If yes, how many times? 2  
   Indicate the number of students enrolled for each academic period it was taught. Spring 2005 - 7; Spring 2006 - 5  

8. This course will be:  
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)  
      Ph.D., Ed.D. in Health Education  
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)  
      M.S., M.Ed. in Health Education  

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (exclude punctuation)  
        | HLTH 659 | Writing Health Educators  

<table>
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<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
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Do not complete shaded area.

Approval recommended by:  

Head of Department Date [Signature]  
Chair, College Review Committee Date [Signature]  

Head of Department (if cross-listed course) Date [Signature]  
Dean of College Date [Signature]  

Submitted to Coordinating Board by:  

Dean of College Date [Signature]  

Director of Academic Support Services Date [Signature]  

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.  
OAR/AS-5-04  

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HLTH 659 “Writing for Health Educators”

Course Description: The purpose of this course is to provide students with practical application activities to enhance their skills to conduct writing activities appropriate for entry level Ph.D. trained professionals. The course will be taught in a seminar format.

Course Philosophy: Writing is often an individual, frightening and lonely task. Some professionals like to write, some are frightened by it and others are bored. Suffice to say, the written work is still cherished in the academic community. Those who can write clear, well organized, properly referenced and succinct prose are more likely to succeed in the academy. Each of us has our own writing style and our own way to organize and express our thoughts. This course will not tell you how to work, but will provide a forum your peers and your professor to critique your output, not your process. Appropriate practice and systematic feedback will enhance your writing and reduce some of the fears you may have about writing and submitting your writing to examination by peers.

Required Text:

Course Activities: HLTH 659 will consist of a series of low stakes and one high stake writing assignment.
   A. Low stakes – these assignments will include practical writing activities you most likely you will need to do as a Ph.D. student or health professional. For the low stakes activities, you’ll be asked to 1) complete the writing assignment 2) share your writing with your classmates and instructors 3) discuss the process you used to develop the written piece, and 4) revise and submit your completed work as appropriate. For this semester, you’ll be required to produce the following low-stakes writing projects/activities.
   • HLKN newsletter feature
   • A statement of your philosophy of health education and health promotion
   • A statement of your professional and research goals
   • A letter of application for a professional position at a university or governmental health agency (This letter will be based on actual job description)
   • Letter of recommendation for a colleague
   • An abstract to be submitted for inclusion on a convention program
“Tools of the Trade” Activities
1) The Proof is in the Reading, page 7
2) Full Court Press Release, page 49-50
3) Writing a Book Review, page 56-57
4) Writing an Op-ed Column, page 57-59

B. High Stakes – students will be required to complete one of the following:
   • A comprehensive literature review on a health education topic, or
   • The draft of a data based or state-of-the-art manuscript for submission to a
     health education related journal for publication.

The high stakes writing activities will be discussed in more detail during the first class.

Grading: Because this is a doctoral seminar, all students successfully completing all
writing assignments by the last day of class will receive an “A.” All other grades will be
negotiated with the instructor.

Attendance Policy: Attendance is the first requirement for successful completion of this
class and the means to receive optimal benefit for your time and money. Attendance will
be checked each class period. Your attendance will weight in grade decisions.

To avoid misunderstandings on both our parts, please refer to the Texas A&M University
Rules, Part 1, Academic Rules, # 7 Attendance:

7.1 The student is responsible for providing satisfactory evidence to the instructor
to substantiate the reason for absence. Among the reasons absences are
considered excised by the university are the following:

1) Participation in an activity appearing on the University authorized list.
2) Death or major illness in a student’s immediate family
3) Illness of a dependent family member
4) Participation in legal proceedings or administrative procedure that require a
   student’s presence
5) Religious holy day
6) Injury or illness that is too severe or contagious for the student to attend class.
7) Required participation in military duties
8) Mandatory admission interviews for professional or graduate school which can
   not be rescheduled.

Aggie Honor Code:
“Aggies do not lie, cheat or steal, nor do they tolerate those who do.”

“The Aggie Code of Honor is an effort to unify the aims of all Texas A&M men and
women toward a high code of ethics and personal dignity. For most, living under this
code will be no problem, as it asks nothing of a person that is beyond reason. It only
calls for honesty, integrity, characteristics that Aggies have always exemplified. The
Aggie Code of Honor functions as a symbol to all Aggies, promoting the understanding and loyalty to truth and confidence in each other.”

All students are expected to abide by the Aggie Honor Code. Students should be aware of all Honor Council Rules and Procedures on the Honor Council website at www.tamu.edu/aggiehonor.

You are strongly encouraged to visit the Evans Library website titled “Student Resources on Academic Integrity and Plagiarism” for more information.

http://library.tamu.edu/vgn/portal/tamulib/content/renderer/children/0.2875.1724_1001620.00.html

**Academic Dishonesty:** Scholastic dishonesty (cheating or plagiarism) will not be tolerated. Refer to the TAMU Student Rules and Regulations (#20 – Scholastic Dishonesty). In section I.20.1.3 of the Texas A&M University Student Rules, plagiarism is defined as, "Failing to credit sources used in a work product in an attempt to pass off the work as one's own. Attempting to receive credit for work performed by another, including papers obtained in whole or in part from individuals or other sources.” To avoid plagiarism — **Cite your sources.**

**Copyright Statement:** The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

**ADA Statement:** The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodations of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Disability Services in Room B118 of Cain Hall, or call 845-1637. Helpful information is located at http://disability.tamu.edu.

**Tentative Schedule:** Each class session, we will go over the activities for one of the chapters in the Berry text and review the writing assignments for that day. This schedule is tentative because we’ll see how far we get each class and set the agenda for the next class accordingly.

Chapter 1, Phase One of the Writing Process: From Idea to Draft

Chapter 2, Phase Two of the Writing Process: Developing Precise Sentences
Chapter 3, Phase Three of the Writing Process: Using Precise Words and Developing a Professional Style

Chapter 4, Phase Four of the Writing Process: Creating Essays that Flow

Chapter 5, Phase Five and Six of the Writing Process: Editing and Proofreading

HLKN newsletter feature

Chapter 7, Writing the Argument

Chapter 8, Writing to Inform: The Research Paper

Chapter 9, Writing the Thesis

Chapter 10, Writing for Publication

Chapter 11, Documentation

Chapter 12, The Business of Writing
Texas A&M University
Departmental Request for a New Course
Undergraduate  Graduate  Professional
Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of ________
2. Course prefix, number and complete title ___KINE 613 Diversity in Sport Organizations____
3. Course description (not more than 50 words) _____Examines an encompassing perspective of diversity within North American and international sport organizations; provides students with an analysis and understanding of the various ways that people within sport organizations can differ; treats issues of the non-dominant, historically under-represented elements of U.S. society, with an emphasis placed on racial and gender issues.____
4. Prerequisite(s) ___Graduate Student____
5. Is this a variable credit course? □ Yes □ No If yes, from ______ to ______.
6. Is this a repeatable course? □ Yes □ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? □ Yes □ No
7. Has this course been taught as a 489/689? □ Yes □ No If yes, how many times? ________ Indicate the number of students enrolled for each academic period it was taught.
8. This course will be:
a. required for students enrolled in the following degree program(s) (e.g., B.A. in history) ______
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography) ______
   M.S., Ph.D. Kinesiology; M.Ed., Ph.D. Physical Education

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix: ___KINE____ Course # ___613____ Title (exclude punctuation) ___Diversity in Sport Organizations____

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<th>Lab</th>
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Do not complete shaded area.

Approval recommended by:

Head of Department  ___________  Date  ____________  Chair, College Review Committee  Date  ____________

Head of Department (if cross-listed course)  ___________  Date

Submitted to Coordinating Board by:

Dean of College  ___________  Date

Director of Academic Support Services  ___________  Date  Effective Date  ____________

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

DAR/AS 5/94

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DEPARTMENT OF HEALTH AND KINESIOLOGY

CONDENSED COURSE SYLLABUS

Course Number KINE 613  Name of Course  Diversity in Sport Organizations

Hours: 3  Practice:  Credit: 3

Prerequisites  Graduate standing

Description of Course: This course examines an encompassing perspective of diversity within North American and international sport organizations. Specifically, the course provides students with an analysis and understanding of the various ways that people within sport organizations can differ. The course treats issues of the non-dominant, historically under-represented elements of U.S. society, with an emphasis placed on racial and gender issues.


Outline by Topics:  (Approx. Hrs. Each Topic)

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<tr>
<th>Topic</th>
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<td>1. Overview of diversity</td>
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<td>2. Approaches to the study of diversity</td>
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<td>3. Theoretical tenets of diversity</td>
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<tr>
<td>4. Prejudice and discrimination</td>
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<td>5. Racial issues in sport organizations</td>
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<tr>
<td>6. Men and women in sport organizations</td>
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<td></td>
</tr>
<tr>
<td>7. Age, disability, and obesity</td>
<td>3</td>
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<td>8. Religion, sexual orientation, and social class</td>
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<td>9. Compositional diversity</td>
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<tr>
<td>10. Relational diversity</td>
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<tr>
<td>11. Legal aspects of diversity</td>
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<td></td>
</tr>
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<td>12. Managing diverse organizations</td>
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<td>13. Management of diverse work groups</td>
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<td>14. Diversity training</td>
<td>3</td>
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</tbody>
</table>
Texas A&M University
KINE 613: Diversity in Sport Organizations

General Course Information:
George B. Cunningham, PhD
206 GRW
458-8006
gbcunningham@hlkn.tamu.edu
Office Hours: TBA

Required Reading:

Course Scope and Rationale:
This course examines an encompassing perspective of diversity within North American and international sport organizations. Specifically, the course provides students with an analysis and understanding of the various ways that people within sport organizations can differ. The course treats issues of the non-dominant, historically under-represented elements of U.S. society, with an emphasis placed on racial, ethnic, and gender issues.

Course Objectives:
As a result of this course, students should be able to:

1. provide a definition of diversity encompassing of the various facets of the topic;
2. differentiate between the various manners of examining diversity;
3. provide evidence of an understanding of the theoretical underpinnings related to compositional diversity and relational dissimilarity;
4. understand the ways in which people differ based on race/ethnicity, gender, sexual orientation, class, age, disability, and obesity;
5. understand and be able to discuss the experiences of people who are different from their co-workers or members of their workgroups;
6. have a working knowledge of laws that govern diversity in the workplace;
7. discuss the influence of diversity in organizations outside North American and describe the importance of international and cultural awareness of differences;
8. discuss the strategies that can be used to create a diverse and inclusive workplace within sport organizations; and
9. understand the impact of organizational leadership style and behavior in creating and sustaining a diverse workforce.
Course Policies and Expectations:

- Students are expected to attend class and actively engage in the class discussions. Note that this also entails being prepared for the class, having read the assigned materials.
- Each unexcused absence will result in a 2-point deduction from the participation points. Only those absences defined by Student Rule 7 are considered excused. Work that is missed due to an unexcused absence may not be completed at another time.
- “An Aggie does not lie, cheat, or steal or tolerate those who do.”
  - Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: [www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor).
  - On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student: “On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”

Plagiarism Statement:

- As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safety communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, [http://student-rules.tamu.edu](http://student-rules.tamu.edu), under the section “Scholastic Dishonesty.”

Americans with Disabilities Act (ADA) Policy Statement:

- The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information. The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall or call 845-1637.

Copyright Statement:

- The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.
Point Structure:
- Topic Leader: 50
- Topic Papers (13)*(10): 130
- Sport Organization Project: 100
- Participation: 50
- Final Exam: 100

Total Points: 430

Grading Structure:
- 90% - 100%: A
- 80% - 89%: B
- 70% - 79%: C
- 60% - 69%: D
- Less than 60%: E

Assignments:

**Topic Leader:** Each person will be assigned a partner (or partners) and the team will be charged with leading the class discussion concerning a particular topic for that day. When leading the class, the students should provide a critique of the articles read, discuss the implications of the article as it pertains to sport and the delivery of sport, and present the class with questions related to both (a) the specific article/chapter and (b) the topic as a whole. A summary of the articles is not needed. The students will need to consult additional articles/chapters to supplement the discussion. If so desired, the student (group) may also present an exercise (e.g., brief case study, debate topics, etc.) related to the topic. Each group presentation will last 75 minutes (or half of the assigned class time).

The group’s grade will be dependent upon the rating from the instructor. The grade will be dependent upon five factors: (a) critique, or the extent to which the presenters provided a thought-provoking critique of the articles that went beyond issues discussed by the authors; (b) implications, which includes the extent to which the presenters discuss managerial implications of the articles as they pertain to sport and the delivery of sport products; (c) questions, or the extent to which the presenters posed good questions to the class to stimulate conversation concerning the articles / course material; (d) orientation, which is the extent to which the presenters imparted the information in a professional manner and facilitated interaction on the respective topic; and (e) overall, which includes the overall quality of the presentation.

**Topic Papers:** Students will read several articles/chapters for each topic we cover in class. Students are then expected to complete a short paper (1 page) for each topic that presents a critique of the readings, as well as implications for the management of organizations for sport and physical activity. The paper should be typed, have 1.5 spacing and one-inch margins using Times New Roman font. In addition, students should provide two questions related to the topic. These questions should be posed on a separate page. Students should be ready to pose these questions to their class members during the respective presentations. In addition, the questions should be emailed to the topic leaders the day before the presentation is to take place. Finally, each paper should also contain a reference list corresponding to the articles (chapters) read for the day. The
references should be in accordance with the standards set forth by the *American Psychological Association Publications Manual* (5th ed.). A copy is available in the library. Further details related to referencing in APA format can be found at [http://library.tamu.edu/vgn/images/portal/cit_744/20/0/23480Using%20APA%20Format.pdf](http://library.tamu.edu/vgn/images/portal/cit_744/20/0/23480Using%20APA%20Format.pdf)

**Sport Organization Paper:** Students will work in groups assigned by the instructor. Each group will be charged with interviewing a manager from a local organization for sport, physical activity, or recreation. The purpose of this interview is to gather information concerning the organization's diversity practices. Specifically, the interview should examine the primary forms of diversity in the organization, the diversity management strategies the organization employs, and the primary ways diversity impacts the processes and outcomes of that organization. *Prior to conducting the interview, each group should get the questions approved by the instructor.* Further, the questions should be emailed (mailed) to the interviewee at least one day prior to the day of the actual interview. Each group is then charged with writing a paper based on this interview. The paper should include (a) a brief description of the organization, which includes its basic structure and strategy, and overall goals; (b) a description of the primary forms of diversity in the organization, the diversity management strategies the organization employs, and the primary ways diversity impacts the processes and outcomes of that organization; (c) recommendations for change; and (d) a conclusion. When suggesting recommendations, the group should use the literature from the course packet, additional literature gathered by the group members, and/or the material from the class discussions and lectures. Work from other sources should be cited within the text and in a reference list following the paper. The groups should follow the guidelines from the *American Psychological Association Publications Manual* (5th ed.) in citing the articles. The paper should contain between 8-10 pages of text (i.e., not including the title page, reference, figures, or tables). All papers should be typed, double-spaced, with 12-point Times New Roman font and one-inch margins.

**Sport Organization Presentation:** Each group will make a presentation based on the paper written concerning the sport, recreation, or leisure organization. The presentation should convey the same information in the paper. Presentations should be between 15-20 minutes, with an additional 5 minutes for questions. Presentations should be made using overheads and/or PowerPoint. Presentation dates will be assigned.

**Sport Organization Participation:** Each student within the group will be graded by his or her group members concerning the contribution made to the paper and presentation. Students should also provide ratings of their own performance. A copy of the evaluation form is attached to the back of the syllabus.

**** Please also note that, while the sport organization project is a group project, failure to participate in the project will result in a deduction from your participation points and points you are awarded for the paper.

**Participation:** Students are expected to actively participate in class. Active participation entails (a) attending class; (b) coming prepared (i.e., having read the requisite material) to class; and (c) asking and answering questions during class discussions. Failure to do so will result in a deduction of participation points.
**Final Examination:** A final exam will be given on DATE, covering all of the material covered in the class. The exam will be in essay form.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of diversity</td>
<td>Cunningham, Ch. 1</td>
</tr>
<tr>
<td>2</td>
<td>Approaches to the study of diversity</td>
<td>Cunningham, Ch. 2</td>
</tr>
<tr>
<td>3</td>
<td>Theoretical tenets of diversity</td>
<td>Cunningham, Ch. 2</td>
</tr>
<tr>
<td>4</td>
<td>Prejudice and discrimination</td>
<td>Cunningham, Ch. 3</td>
</tr>
<tr>
<td>5</td>
<td>Racial issues in sport organizations</td>
<td>Cunningham, Ch. 4</td>
</tr>
<tr>
<td>6</td>
<td>Men and women in sport organizations</td>
<td>Cunningham, Ch. 5</td>
</tr>
<tr>
<td>7</td>
<td>Age, disability, and obesity</td>
<td>Cunningham, Ch. 6</td>
</tr>
<tr>
<td>8</td>
<td>Religion, sexual orientation, and social class</td>
<td>Cunningham, Ch. 7</td>
</tr>
<tr>
<td>9</td>
<td>Compositional diversity</td>
<td>Cunningham, Ch. 8</td>
</tr>
<tr>
<td>10</td>
<td>Relational diversity</td>
<td>Cunningham, Ch. 9</td>
</tr>
<tr>
<td>11</td>
<td>Legal aspects of diversity</td>
<td>Cunningham, Ch. 10</td>
</tr>
<tr>
<td>12</td>
<td>Managing diverse organizations</td>
<td>Cunningham, Ch. 11</td>
</tr>
<tr>
<td>13</td>
<td>Management of diverse work groups</td>
<td>Cunningham, Ch. 12</td>
</tr>
<tr>
<td>14</td>
<td>Diversity training</td>
<td>Cunningham, Ch. 13</td>
</tr>
<tr>
<td>15</td>
<td>Student Presentations</td>
<td></td>
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<tr>
<td></td>
<td><strong>Final Exam</strong></td>
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Texas A&M University  
**Departmental Request for a New Course**  
Undergraduate  Graduate  Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This course is submitted by the Department of  Rangeland Ecology and Management

2. Course prefix, number and complete title of course:  RLEM 620  Ecological Restoration of Wetland and Riparian Systems

3. Course description (not more than 50 words): How wetland and riparian areas link terrestrial and aquatic systems and function hydrologically and ecologically within watersheds; integrated approaches for restoration of degraded wetland and riparian systems; improving water resources through vegetation management with a special interest in rangelands.

4. Prerequisite(s)  RENR 205 or equivalent and WFSC 428 or equivalent  Cross-listed with  

or approval of instructor  

5. Is this a variable credit course?  Yes  X No  If yes, from  to  

6. Is this a repeatable course?  Yes  X No  If yes, this course may be taken  times.  
Will the course be repeated within the same semester/term?  Yes  X No  

7. Has this course been taught as a 489/689?  X Yes  No  If yes, how many times?  2  
Indicate the number of students enrolled for each academic period it was taught:  Fall 05-9, Fall 06C-5  

8. This course will be:  
   a. Required for students enrolled in the following degree program(s) (e.g., B.A. in history)  
      
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)  
      M.S., PhD in Rangeland Ecology and Management, Wildlife and Fisheries Science  

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. 

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Course #</th>
<th>Title (exclude punctuation)</th>
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<tbody>
<tr>
<td>RLEM</td>
<td>620</td>
<td>Wetland Ecological Restoration</td>
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<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Academic Year</th>
<th>FICE Code</th>
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</table>

Approval recommended by:  

[Signature]  8/02/2006  
Head of Department  

[Signature]  Sept 19, 06  
Chair, College Review Committee  

[Signature]  9-21-06  
Dean of College  

[Signature]  
Dean of College  

Submitted to Coordinating Board by:  

[Signature]  
Date  

[Signature]  Date  

Director of Academic Support Services  

Date  

Effective Date  

*Attach a syllabus according to the guidelines on the web site www.tamu.edu/courseforms. To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.*

OAR/AS-697
Ecological Restoration of Wetland and Riparian Systems
RLEM 620
Room 317 ANIN
MW 10:20 – 11:10
**Lab F 10:20-12:10

Instructor:  Dr. Georgianne W. Moore, Assistant Professor
Dept. Rangeland Ecology and Management
325 Animal Industries Building
Phone: 845-3765
gwmoore@tamu.edu

Office hours: MW 11:10-12:00
Website: http://rangeland.tamu.edu/people/gmoore/

Course Goal: Steps in ecological restoration include problem identification, restoration design, implementation, and assessment; students in rangeland and other natural resources disciplines will relate fundamentals of ecology to steps in restoration of wetlands and riparian systems through interdisciplinary approaches, case studies, and field trips to restoration sites.

Course Objectives:
• Deconstruct how wetlands and riparian zones link terrestrial and aquatic systems
• Translate best management practices for water resources
• Interpret restoration from a watershed standpoint based on an understanding of ecological principles
• Identify problems specific to Texas rangelands
• Gain a global perspective on the role of wetlands in the hydrologic cycle and climate
• Calculate changes in hydrologic regime following restoration of natural hydrology
• Classify stream geomorphology and predict channel evolution as a result of degraded riparian condition
• Interpret wetland protection laws at the state and federal level and identify key components in the regulatory process
• Practice ecosystem assessment techniques for water quality and stream bank stabilization


Student Evaluations: Points
Homework Assignments 10
Field Trip Report 10
Case Study Report 15
Midterm Exam 25
Final Exam 30
Class Participation & Quizzes 10
TOTAL: 100%
<table>
<thead>
<tr>
<th>Week of</th>
<th>Subject</th>
<th>Meets</th>
<th>Reading</th>
<th>Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 28</td>
<td>Introduction to wetland and riparian ecological restoration; Texas and global issues and perspectives on restoration</td>
<td>MWF</td>
<td>Ch.1-4 Zedler TX Water Law</td>
<td>Lab Meets</td>
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<tr>
<td>Sept 4</td>
<td>Restoring the hydrologic cycle; linkages between hydrological and ecological processes in flowing systems</td>
<td>MW</td>
<td>Ch.5</td>
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<td>Sept 11</td>
<td>Plant adaptations; plant succession-restoration relationships; phreatophytes</td>
<td>MW</td>
<td>Ch.7 Saltcedar1 Saltcedar2</td>
<td>HW1 due</td>
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<tr>
<td>Sept 18</td>
<td>Landscape overview; How the River Continuum Concept applies to restoration; linkages between terrestrial and aquatic systems; Roads1</td>
<td>MWF</td>
<td>Ch.15 Swanson</td>
<td>Lab Meets</td>
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<tr>
<td>Sept 25</td>
<td>Restoring geomorphology; flow and flood regulation by wetlands and riparian areas; dam removal</td>
<td>MW</td>
<td>Ch.15 Bernhardt Palmer1 Palmer2</td>
<td>HW2 due</td>
</tr>
<tr>
<td>Oct 2</td>
<td>Role of disturbance: fire, flood, grazing, drought; MIDTERM EXAM</td>
<td>MW</td>
<td>MIDTERM Oct 4</td>
<td></td>
</tr>
<tr>
<td>Oct 9</td>
<td>Removing invasive species; how to assess health</td>
<td>MW</td>
<td></td>
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<tr>
<td>Oct 16</td>
<td>Improving water quality; Sediments and erosion control; Roads2</td>
<td>MWF</td>
<td>Ch.6</td>
<td>Field Trip1 Half-day</td>
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<tr>
<td>Oct 23</td>
<td>Soils as critical component to restoration; Riparian biogeochemistry; Issues in tidal systems</td>
<td>MW</td>
<td>Ch.6, 9 Field Trip2 Oct 26-29</td>
<td></td>
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<tr>
<td>Oct 30</td>
<td>Swamps; Restoration in an urban environment; Nutrients and pesticides – sources and sinks; Stream temperature</td>
<td>MW</td>
<td>Ch.6, 14 Report due</td>
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<tr>
<td>Nov 6</td>
<td>Restoring severely degraded systems; Remediation</td>
<td>MWF</td>
<td>Ch.16</td>
<td>Field trip3 Half-day</td>
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<tr>
<td>Nov 13</td>
<td>Ecological restoration and remediation case studies</td>
<td>MW</td>
<td>Ch.17, 19 HW3 due</td>
<td></td>
</tr>
<tr>
<td>Nov 20</td>
<td>Best management practices; regulations</td>
<td>M</td>
<td>Ch. 19</td>
<td></td>
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<tr>
<td>Nov 27</td>
<td>Graduate Student Presentations</td>
<td>MW</td>
<td>Ch.18</td>
<td></td>
</tr>
<tr>
<td>Dec 4</td>
<td>Global perspectives revisited; Exam Review; Final Exam</td>
<td>MT</td>
<td>FINAL* Dec 5</td>
<td></td>
</tr>
</tbody>
</table>

*Final Exam date changed from regular schedule. Subject to student approval.

**Labs and Field Trip:** Labs will not meet every Friday (see schedule). During week 9, there will be an overnight field trip and outdoor laboratory. Participation is mandatory. Details will be forthcoming. If unavoidable conflicts arise, alternative independent work may be substituted, as determined by the instructor (see Student Rules #6 on attendance).
Americans with Disabilities Act (ADA) Policy Statement
The following ADA Policy Statement (part of the Policy on Individual Disabling Conditions) was submitted to the University Curriculum Committee by the Department of Student Life. The policy statement was forwarded to the Faculty Senate for information.

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall or call 845-1637.

Academic Integrity Statement
All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web.

Aggie Honor Code
"An Aggie does not lie, cheat, or steal or tolerate those who do."

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: www.tamu.edu/aggiehonor/

On all course work, assignments, and examinations at Texas A&M University, the following Honor Pledge shall be preprinted and signed by the student:

"On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work."

09/05
Texas A&M University  
Departmental Request for a New Course  
Undergraduate • Graduate • Professional

Submit original form and 2 copies. Attach a course syllabus to each.

1. This request is submitted by the Department of  
   English

2. Course prefix, number and complete title  SCEN 698: Writing for Publication

3. Course description (not more than 50 words) Writing in academic disciplines and settings. Writing for different audiences and purposes. Style; planning and development of journal articles; grant proposals; correspondence; oral presentations; technical reports. Permission of departmental/college graduate advisor.

4. Prerequisite(s) advanced standing in master's/doctoral programs. Cross-listed with

   Cross-listed courses require the signatures of both department heads.

5. Is this a variable credit course? Yes ☐ No ☐ If yes, from _____ to _____

6. Is this a repeatable course? Yes ☐ No ☐ If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? Yes ☐ No

7. Has this course been taught as a 489/689? Yes ☐ No ☐ If yes, how many times? 1 time. Indicate the number of students enrolled for each academic period it was taught. 25

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)

   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)

   any master's or doctoral program

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix  Course #  Title (exclude punctuation)

    SCEN 698  WRITING FOR PUBLICATION

    Lect.  Lab  SCH  Subject Matter Content Code  Admin. Unit  Acad. Year  FICE Code
    0 3 0 0 0 3 2 3 1 0 1 0 0 0 1 2 5 1 4 0 6 - 0 7 0 0 3 6 3 2

    Do not complete shaded area.

Approval recommended by:

Head of Department  9/10/06

Chair, College Review Committee  9/20/06

Head of Department (if cross-listed course)  Date

Dean of College  9/20/06

Submitted to Coordinating Board by:

Dean of College  Date

Effective Date

To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.

OAR/AS-504

52 of 61 C
SCEN 698: Writing for Publication

Instructor:
Elizabeth Tebeaux
Professor of English
243E Blocker

Phone: 862-3593
Email: e-tebeaux@tamu.edu
Office hours: TBA

Resource website: http://www.tamu.edu/ode/graduatewritingproject
Reading assignments are located on this URL and in the required texts.

Enrollment Prerequisites

The course targets graduate students working on their theses or dissertations and/or students actively planning and writing an article for publication. Students beginning their graduate work should not enroll because of the level of writing projects required. Students who enroll should be focusing on completing their academic work and committed to improving their writing. This course is NOT about grades but having focused time to learn how to improve your writing.

Course Objectives

- Practice elements of communication needed by graduate students in an academic work context.
- Apply principles of design as these apply to sentences, paragraphs, and complete documents.
- Practice developing types of academic writing.
- Review principles of usage and punctuation—essentials of Standard English.
- Develop expertise in writing needed beyond school. Students who enroll are encouraged to focus on an article they may wish to publish or their thesis or dissertation.

Outcomes

- Students will prepare a variety of documents related to their graduate work and writing in the workplace.
- These documents will allow students to practice application of development principles needed for each kind of document.
- Students will improve their command and application of principles of writing as determined by pre-/post-assessment.

Course Description

3 SCH credit. Class sessions will have discussion, lecture, and practice time for students to work on writing projects. Course will focus on principles for developing sentences, paragraphs, scientific papers and presentations. Other topics: understanding the elements of clarity, developing grant proposals, avoiding plagiarism, understanding the perspectives of journal editors, developing effective oral presentations and PowerPoint slides, developing the CV. Students will work in teams to discuss/evaluate some assignments. Students will complete a writing assessment assignment at the beginning and the end of the course to determine improvement. Design of subsequent sections of this course will use assessment results. Course topics/assignments may vary depending on needs of the individual class.
689: Writing for Publication--2

Course Assignments — will vary with needs of each class

Writing assessment assignment—beginning and end of the term

Analysis of journal publication requirements—memorandum

Effective paragraph development
  - Short paragraph abstracts based on short articles
  - Revisions of two of your paragraphs.

Introduction— for an article or your thesis/dissertation
Abstracts—descriptive and informative of an article
Developing effective correspondence
  - Query letter to an editor of a journal
  - Proposal letter (for an article or a presentation)
Two articles:
  - Article for publication; or short article summarizing your research findings
  - Revision of this article for a general audience.

Effective conference presentations

Review of grammar and usage as needed; in-class practice; avoiding plagiarism

Course Requirements

- Attend class regularly. Complete all assigned readings. Participate in team assignments. Ask questions. Do all assignments. **All assignments must be submitted to pass the course.**

Evaluation

- Each assignment will be evaluated according to the development principles for each document assigned.
- Evaluations will use rubric to evaluate how well students understand principles of planning, writing, revising, and editing. Grading for the course will be pass/fail.

Academic Integrity

**Aggies do not lie, cheat, or steal or tolerate those who do.**

Each student is expected to do his/her own work. This course is NOT about grades but about learning how to plan, write, and revise documents important in an academic environment. Any violation of the honor code will be reported to the Honor Code Office and to the Office of Graduate Studies.

Required Books (Available at the university book store under Graduate Writing Project)
These books should be useful to you long after you have completed this course.


Course and Assignment Sequence

- Knowing what your field expects/requires in terms of style and presentation.
- Writing an effective thesis/dissertation: Barbara McGuirk, Thesis Clerk
- Effective paragraphing, clear sentence structure, document design, and concepts of organization
- Documentation: How to avoid plagiarism. Speaker: Candace Shafer, University Writing Center
- Presentation by two journal editors—Writing requirements for article acceptance
- Effective writing and proposal acceptance—Dr. Phyllis McBride. Office of Proposal Development, VPR

✓ Assignment 1: Summarize your discipline's guide to publication. Focus on writing and style requirements for articles. Or, assess a journal in which you would like to publish. Describe kinds of articles published, focus of articles, targeted readers, length, format, sentence style, documentation, visuals, abstract type used. Prepare a memo reporting your findings. Attach several pages of an article from this journal.

- Analyzing Audiences: What do academic editors of journals expect in articles submitted for publication? Speakers: two editors from professional/academic journals currently housed at TAMU.
- Principles of Design for technical reports, articles, proposals, and correspondence
- Analyzing Paragraph Development

✓ Assignment 2: Submit two paragraphs you have written along with revisions of these paragraphs based on the elements of good paragraphs.

- Developing Abstracts: Discussion of different types of abstracts—form and content

✓ Assignment 3: Write a one-paragraph informative abstract of the article on the website (assignment readings). Write a short descriptive abstract of the same article.

- Developing Introductions: Analyze introductions of articles in journals in which you would like to publish. Analyze introductions to theses and dissertations.

✓ Assignment 4: Prepare an introduction to an article. Or, work on the introduction to your thesis/dissertation.
Review of Sentence Structure: How to write a clear, concise sentence. Sentence analysis will be studied regularly.

Short essay to study and edit. Goal: improve readability and clarity. In-class project.

Review of punctuation, usage, and grammar—will occur regularly, as needed. Focus: problems that occur in students’ papers.

Designing Effective Memoranda and Letters

✓ Assignment 5: Memoranda/letters written in response to case situations. Write a letter of inquiry to a journal editor.

Designing Proposals—Dr. Phyllis McBride, Office of Proposal Development, VPR

✓ Assignment 6: Prepare a proposal for an article or a conference presentation. Scenario: A colleague in your discipline is planning a special issue on a topic. Graduate students are invited to submit one/two-page proposals for articles/presentations. Write the proposal and attach it to a letter to the person who is soliciting proposals for the special issue/conference.

Planning/writing the academic article and the popular article

✓ Assignments 7A: Write an article about a topic in your field of research. Article 7B: Target audience: general readers. Goal: Learn to explain your research to non-technical readers.

How to read an article at a conference; effective use of PowerPoint.

Developing the effective CV and application letter.

Americans with Disabilities Act (ADA) Policy Statement

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Texas A&M University
Departmental Request for a New Course
Undergraduate · Graduate · Professional
Submit original form and 2 copies. Attach a course syllabus to each.*

1. This request is submitted by the Department of _STATISTICS_

2. Course prefix, number and complete title _STAT 665 Statistical Applications of Wavelets_

3. Course description (not more than 50 words) _This is a course on the use of wavelet methods in statistics. The course introduces wavelet theory, provides an overview of wavelet-based statistical methods. Topics include smoothing of noisy signals, estimation of function data and representation of stochastic processes. Some emphasis is given to Bayesian procedures._

4. Prerequisite(s) _STAT 611 or approval by the instructor_ Cross-listed with _Cross-listed courses require the signatures of both department heads._

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from ______ to _______.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 489/689? ☐ Yes ☑ No If yes, how many times? _2_ Indicate the number of students enrolled for each academic period it was taught, Spring 2004-14; Spring 2006 - 15_

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography) _MS and PhD in Statistics_

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix Course # Title (exclude punctuation) _STAT 665 STAT . APPL IC . OF WAVELETS_

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Do not complete shaded area.

Approval recommended by:

*Signatures and dates are required.*

Head of Department Date: 9/11/2006

Chair, College Review Committee Date: 9/10/06

Dean of College Date: 9/10/06

Submitted to Coordinating Board by:

Dean of College Date

Director of Academic Support Services Date: Effective Date

*Attach a syllabus according to the guidelines on the Internet site www.tamu.edu/admissions/oqras. To have this form reviewed, please send to Linda F. Lacey, Mail Stop 1265 or fax to 847-8737.*

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STAT 665
Statistical Applications of Wavelets

Instructor: Marina Vannucci

Credits, Class Periods: 3 credits

Course Website
HTTP://STAT.TAMU.EDU/~MVANNUCCI/WEBPAGES/STAT689.HTML

Prerequisites
STAT 611 or approval by the instructor.

Description
This is a course on the use of wavelet methods in statistics. The course starts with a brief introduction to the wavelet theory, followed by an overview of wavelet-based statistical methods with various applications. Topics include smoothing of noisy signals, nonparametric estimation of functional data and representation of stochastic processes. Some emphasis is given to Bayesian inferential procedures. Matlab software is used for class demonstrations.

Course Outline

1. Introduction

2. Mathematical preliminaries and historical overview

3. Wavelet theory
A. Fourier transforms
B. Continuous wavelet transform
C. The wavelet series
D. Discrete transformations
E. Construction and properties of wavelet families
F. Multiresolution analysis
4. Software
A. Overview of available wavelet software
B. Class demonstrations with Matlab software

5. Wavelet shrinkage
A. Traditional approach
B. Global and level-dependent thresholds
C. Bayesian approaches
D. Extensions
E. Applications to simulated and real data

6. Multiple curves
A. Multivariate curve regression
B. Classification problems
C. Mixed models for functional data
D. Case studies

7. Nonparametric estimation
A. Density estimation
B. Wavelet regression
C. Bayesian approaches
D. Applications

8. Time series data
A. Decorrelation properties of the wavelets
B. Estimation of long memory parameters
C. Scalograms and variance decompositions
D. Detection of change points
E. Applications

9. Other topics
A. 2-dimensional wavelet transforms
B. Image processing
C. Undecimated transforms
D. Wavelet packets
Instructional Objectives
The course objective is to illustrate practical applications of the wavelet methods. Complex mathematical details and the filtering theory of the wavelets will be only partially covered.

Evaluation Methods of the Course
There will be assigned readings from research articles. The course grade will consist of 30% class presentation and 70% a semester research project. The final project can be either an analysis of new data or a critical review of the literature on aspects not fully covered in class.

Relationship of the Course to Other Courses
This is a class built up on Stat 611.

Relationship of the Course to Major, Minor or Option
N/A - see above.

Consultation with Other Departments and Academic Support Units
Technology Needs
Students need access to a modern computer which may run wavelet software such as the Matlab or S-plus toolboxes.

Frequency of Offering and Enrollment
Once every two years.

Effective date
ADA Statement:

STATEMENT ON DISABILITIES: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Support Services for Students with Disabilities in Room 126 of the Koldus Student Services Building. The phone number is 845-1637

Plagiarism Statement:

STATEMENT ON PLAGIARISM: The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission. As commonly defined, plagiarism consists of passing off as one's own ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty."

Academic Integrity Statement:

"An Aggie does not lie, cheat, or steal or tolerate those who do."
All syllabi shall contain the above Aggie Honor Code and refer students to the Honor Council Rules and Procedures on the web http://www.tamu.edu/aggiehonor