



Colleges of the Arts and Sciences

Curriculum Office
105 Brown Hall
190 West 17th Avenue
Columbus, OH 43210

Phone (614) 292-7226
Fax (614) 688-5678

February 22, 2006

Council on Academic Affairs
W. Randy Smith, Vice Provost
Office of Academic Affairs
203 Bricker Hall, 190 N. Oval Mall

Dear members of the Council on Academic Affairs:

In the Winter Quarter of 2006, the Colleges of Arts and Sciences submitted the attached proposal to create a new interdisciplinary undergraduate minor in *Forensic Science*. This goal of the minor is to provide students with a broad-based understanding of the field of Forensic Science. The methods and measures of forensics will come from the students' undergraduate majors and/or future graduate study, therefore the purpose of this minor is to provide an understanding of the basic issues and the application of those methods within the context of forensic science.

The enclosed packet of materials includes correspondence regarding the vetting process, the minor sheet, program proposal, a proposal for a new course (ASC 211, Introduction to Forensic Science), and sample syllabi.

The minor was vetted by the Arts and Sciences Committee on Curriculum and Instruction (CCI) Subcommittee A in February, 2006. It was unanimously approved by the Arts and Sciences Committee on Curriculum and Instruction (CCI) at the February 17, 2006 meeting. The CCI respectfully recommends that the Council on Academic Affairs approves this minor.

The contacts for this program are Linda Schoen, Assistant Executive Dean, Office of Interdisciplinary Studies; Terry Gustafson, Associate Professor, Chemistry; and Sam Stout, Professor, Anthropology. They can be reached at schoen.16@osu.edu, gustafson@chemistry.ohio-state.edu and stout.126@osu.edu, respectively.

Additional information, including the original version of the proposal, can be found on our website, at <http://artsandsciences.osu.edu/currofc/tracking.cfm?TrackingID=289>. Please let us know if you have any questions.

Sincerely,

Jessica Mercerhill
Director

CC: Linda Schoen
Terry Gustafson
Sam Stout

Enc: Memos regarding vetting process
Forensic Science Minor sheet
Proposal to create a minor in Media Forensic Science
ASC 211, Introduction to Forensic Science, course proposal
Sample Syllabi



Office of Interdisciplinary Programs

Colleges of the Arts and Sciences
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Response to Comments from the Arts and Sciences Committee on Curriculum and Instruction

To: Jessica Mercerhill, Director, Arts and Sciences Curriculum Office
From: Linda Schoen, Asst. Exec. Dean, Office of Interdisciplinary Programs *LAZ*
Re: Forensic Science Minor
Date: February 17, 2006

Thank you for your consideration and approval of the interdisciplinary minor, Forensic Science. The participating faculty have worked hard on this development and submission and we believe that it will enrich the university's undergraduate offerings. The ASC 211 syllabus now reflects that the course will be team-taught. Also, the Faculty Oversight Committee will be happy to review additional courses, especially Psychology 305, Drugs and Behavior, when the minor has completed the approval process.



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To: Linda Schoen, Arts and Sciences Interdisciplinary Office
From: Jessica Mercerhill, Director, Arts and Sciences Curriculum Office *JM*
Re: Forensic Science Minor
Date: February 17, 2006

Congratulations! On Friday, February 17, 2006, the Arts and Sciences Committee on Curriculum and Instruction met to review the proposed Forensic Science Minor.

The minor was approved with one contingency:
ASC 211 syllabus should include information indicating that the course will be team-taught.

The following suggestion was also made:
The committee may want to review possible Psychology courses (e.g., the new Psych 305) that may be appropriate for the minor.



Office of Interdisciplinary Programs

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Response to Subcommittee A of the Arts and Sciences Committee on Curriculum and Instruction:

To: Susan Petry
From: Linda Schoen (L.S.)
Re: Forensic Science Minor
Date: February 17, 2006

Thank you and the subcommittee for your careful consideration of the interdisciplinary minor in Forensic Science. The development committee was very positive about your suggestion to reduce the required number of credit hours to 23 hours (rather than 25 hours). Also, the "Administration and Advising" paragraph has been revised to give greater clarity re the advising process. Lastly, the development committee will consider possible name changes re the two courses titled "Introduction to Forensic..." *Introduction to Forensic Science* serves as an introduction to the wider field and the minor, whereas *Introduction to Forensic Anthropology* uses the term "Introduction" to differentiate it from more advanced courses in Forensic Anthropology offered within the Department of Anthropology. Ethical issues will be incorporated throughout the content of ASC 211 rather than dedicating specific lecture topics to ethics.

Response to Subcommittee A of the Arts and Sciences Committee on Curriculum and Instruction:

To: Susan Petry
From: Linda Schoen
Re: Forensic Science Minor
Date: February 17, 2006

Thank you and the subcommittee for your careful consideration of the interdisciplinary minor in Forensic Science. The development committee was very positive about your suggestion to reduce the required number of credit hours to 23 hours (rather than 25 hours). Also, the "Administration and Advising" paragraph has been revised to give greater clarity re the advising process. Lastly, the development committee will consider possible name changes re the two courses titled "Introduction to Forensic..." *Introduction to Forensic Science* serves as an introduction to the wider field and the minor, whereas *Introduction to Forensic Anthropology* uses the term "Introduction" to differentiate it from more advanced courses in Forensic Anthropology offered within the Department of Anthropology. Ethical issues will be incorporated throughout the content of ASC 211 rather than dedicating specific lecture topics to ethics.

To: Linda Schoen, Arts and Sciences Interdisciplinary Office
From: Susan Petry, Interim Chair, Sub A CCI
Re: Forensic Science Minor
Date: February 11, 2006

On Thursday February 9, 2006, the Arts and Sciences CCI subcommittee A met to review the proposed Forensic Science Minor.

The minor was approved with one change, and a few small suggestions.

1. The minimum credit hours for this minor to be lowered to 23; as course credit hours are not all 5 and at 25 credit hours, many curricula would have to include six courses; at 23 it more likely stays in the 5 course model
2. The second paragraph in the section "Administration and Advising" to be slightly altered to be clear that the student may self-navigate through the minor, consulting with advisors and/or faculty as they wish, referring to the web site; no sign off is needed.
3. To be considered only as ASC 211 is developed:
 - a. Suggesting considering changing 211 to be called something w/o "intro", so as not to have two courses in the minor starting with "Introduction to Forensic.."
 - b. Look at ethics as a stated component

Congratulations, and thank you.

The Ohio State University
Colleges of the Arts and Sciences

Forensic Science Minor (Foren Sci, XXX)

Colleges of the Arts and Sciences,
<http://artsandsciences.osu.edu>. Please see an advisor in
Arts and Sciences Advising in 115 Denney Hall to declare
the minor.

The goal of the minor is to provide students with a broad-
based understanding of the field of forensic science. It is not
designed to provide students necessarily with the methods
and measures of forensics, which will come from students'
undergraduate fields of study and/or future graduate study.
The purpose is to give students an understanding of the
basic issues and the applications of those methods within
the context of forensic science.

The Forensic Science minor requires the completion of 23
hours, which consists of an introductory course (5 hours), a
required foundational course (5 hours) and two of three core
courses. The remaining credit hours come from electives.
Overlap with the GEC is permitted however overlap with the
major is prohibited. If you follow the program as listed, you
need only file it with your college or school counselor.

Required introductory course (5 credit hours)

ASC 211: Introduction to Forensic Science (5)

Required foundational course (5 credit hours)

Anthropology 305: Introduction to Forensic Anthropology

Core Courses

Chose 2 of the 3 following courses:

Pharmacy 200: The Rational and Irrational Use of Drugs (3)

Psychology 485: Psychology and the Law (4)

Sociology 209: Introduction to Criminal Justice (5)

Electives

Students must complete additional electives from the courses listed
below to total a minimum of 23 hours.

Anthro 603.01: Human Osteology (5)
Anthro 603.02: Skeletal Biology (5)
Anthro 603.03: Dental Anthropology (5)
Anthro 640.04: Forensic Anthropology (5)
Chem 221: Analytical Chemistry I (5)
Chem 587: Analytical Chemistry II: Instrumental Analysis (3)
Chem 588: Laboratory Practice in Instrumental Analysis (3)
CSE 551: Introduction to Information Security (3)
Entomology 500: General Entomology (5)
Entomology 661: Medical Entomology (5)
Med Tech 504: Clinical Correlations in Chemistry (2)
Med Tech 600.01: Molecular Techniques (2)
Med Tech 640: Advanced Laboratory Techniques (Distance) (4)
Med Tech 645.01: Clinical Chemistry (5)
Mol Gen 500/H500: General Genetics (5/6)
Mol Gen 605: Molecular Genetics I (3)
Mol Gen 606: Molecular Genetics II (3)
Mol Gen 607: Cell Biology (3)
Mol Gen 608: Genes and Development (3)
Mol Gen 640: The Genetical Basis of Evolution (5)
Pharmacology 600: General Pharmacology (3)
Pharmacy 200: The Rational and Irrational Use of Drugs (3)
Psych 485: Psychology and the Law (4)
Psych 511: Psychological Testing (4)
Psych 684: Psychology of Delinquency (5)
Sociology 209: Introduction to Criminal Justice (5)
Sociology 210: Sociological Aspects of Deviance (5)
Sociology 310: Sociology of Gangs (5)
Sociology 410/H410: Criminology (5)
Sociology 507: The Criminal Justice System (5)

Sph/Hrng 320: Principles of Phonetics
Sph/Hrng 420: Introduction to Speech Science
TXL& CLO 371: Textiles I

**Note: Students may not count courses for both their major
and a minor. They must designate whether they will count a
course for either the major or the minor.**

Arts and Sciences minor program guidelines

The following guidelines govern minors.

Required for graduation No

Credit hours required A minimum of 20 (some minors
require more)

Transfer credit hours allowed A maximum of 10

Overlap with the GEC Permitted, unless specifically
disallowed by an individual minor program.

Overlap with the major Not allowed and

- The minor must be in a different subject than the major.
- The same courses cannot count on the minor and on the major.

Overlap between minors Each minor completed must
contain 20 unique hours.

Grades required

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative point-hour ratio required for the minor.
- Course work graded Pass/Non-Pass cannot count on the minor.

Approval required The minor program description sheet
indicates if the minor course work must be approved by:

- The academic unit offering the minor, or
- A college/school counselor.

Filing the minor program form The minor program form
must be filed at least by the time the graduation application
is submitted to a college/school counselor.

Changing the minor Once the minor program is filed in the
college office, any changes must be approved by:

- The academic unit offering the minor, or
- A college/school counselor (depending on the minor).

ASC Curriculum Office <http://artsandsciences.osu.edu/>
The Ohio State University
105 Brown Hall, 190 W. 17th Ave
JLM 2/13/06

Proposal for an Interdisciplinary Minor in Forensic Science The Colleges of the Arts and Sciences

Development Committee:

Terry Gustafson	Department of Chemistry
Amanda Simcox	Department of Molecular Genetics
Paul Bellair	Department of Sociology
Sally Rudmann	School of Allied Medical Professions
Sam Stout	Department of Anthropology
Clark Larsen	Department of Anthropology
Robert Fox	Department of Speech and Hearing Sciences
Don Dell	Department of Psychology
Will Froilan	Department of Psychology
Ruth Peterson	Department of Sociology
Janelle Chiasera	School of Allied Medical Professions
Alfred E. Staubus	College of Pharmacy
E. Scott Bair	Department of Geological Sciences
Popat Patil	College of Pharmacy
Cheryl Johnston	Introductory Biology Program
Michael Bissell	Department of Pathology
Tom Prior	Department of Pathology
Kathryn Jakes	Department of Consumer Sciences
Robert Kaufman	Department of Sociology
Deb Zang	Ohio Health Sexual Assault Coordinator-University Hospitals
Ed Adelson	Colleges of the Arts and Sciences
Linda Schoen	Colleges of the Arts and Sciences

Proposal for an Interdisciplinary Minor in Forensic Science

This proposal is to establish a new undergraduate minor in Forensic Science. The goal of this interdisciplinary minor is to provide students with a broad-based understanding of the field of forensic science. It is not designed to provide students necessarily with the methods and measures of forensics, which will come from the students' undergraduate major fields of study and/or future graduate study. The purpose is to give students an understanding of the basic issues and the application of those methods within the context of forensic science.

Forensic science is a broad interdisciplinary field, which is reflected by expressed interest from faculty and students in anthropology, chemistry, computer science, criminology, medical technology, molecular genetics, pharmacy, psychology, and sociology. Recent discussion amongst curricular administrators within the Committee on Institutional Cooperation (CIC) attests to increasing interest amongst faculty and students at other institutions. While there are few established programs at similar institutions, existing programs tend to be discipline-based, for example within Criminal Justice, Chemistry, Anthropology, Entomology, or Psychology. The interdisciplinary nature of this proposal brings an additional strength to this offering at The Ohio State University.

Development of the Minor

The development of this minor arose from student and faculty interest. Several faculty conveyed that interest to the Office of the Colleges of the Arts and Sciences, whose role is to facilitate interdisciplinary programs. An invitation to participate in the development of this interdisciplinary minor was sent to chairs within the Colleges of the Arts and Sciences and faculty and/or chairs in other colleges. The resulting structure and curriculum of the minor were developed by a group of interested faculty and students from the academic units of Anthropology, Chemistry, Geological Sciences, Medical Technology, Molecular Genetics, Psychology, Pathology, Pharmacology, Pharmacy, Sociology and Speech and Hearing Sciences. The Director of the new Forensic and Investigative Sciences undergraduate major at Indiana University- Purdue University at Indianapolis, Dr. Jay Siegel, was brought to campus to consult with the development group on the structure of the minor and the proposed introductory course. In addition, standards for undergraduate programs set by the American Academy of Forensic Sciences were reviewed. Comments and suggestions were solicited from the chairs of all academic units with courses listed on the curriculum, and involvement was encouraged from throughout the Arts and Sciences and other colleges on campus. The proposal was shared with various student groups (from Psychology, Sociology, Medical Technology, Chemistry) and feedback solicited.

Curriculum

The proposed undergraduate minor in Forensic Science requires completion of 23 credit hours. Students must successfully complete an introductory course, a required foundational course and two of three core courses. The remaining credit hours may be taken from a range of elective courses.

Introductory Course: ASC 211 Introduction to Forensic Science (5 credit hours)

Although there is much student interest in forensic science, there is much confusion as to “what it is,” the associated disciplines and the required knowledge base of practitioners. The introductory course has been designed to address these issues and to give an exposure to the different disciplines and the methods and measures involved in the disciplines. It covers a range of sciences applied in a forensic setting. Interdisciplinary in nature and team-taught, it addresses both physical and biological aspects. Information about associated career paths is provided throughout the course. Due to its interdisciplinarity, it will be offered under the broader Arts and Sciences listing. It is expected to be offered twice per year with an enrollment limit of 200 per offering. Initial interest to teach in the course has been expressed by faculty in the various content areas and the Department of Anthropology has agreed to support the coordination of the course.

Foundational Course:

All students must take **Anthropology 305 Introduction to Forensic Anthropology** (5 credit hours). This course introduces students to core forensic concepts within the field of anthropology. Whereas the introductory course gives students a broader overview, this foundational course applies the concepts to anthropology. This is a relatively new course and was taught for the first time in Winter Quarter 2005. The course limit was 75 with an enrollment of 50. The demand for this course may eventually require additional offerings of this course and the Department of Anthropology is supportive of doing so.

Core Courses:

Students are required to take **two** of following:

Pharmacy 200	The Rational and Irrational Use of Drugs (3 crs)
Psychology 485	Psychology and the Law (4 crs)
Sociology 209	Introduction to Criminal Justice (5 crs)

These core courses provide students with a further foundation in different aspects relevant to forensic science. A majority of today’s forensic cases involve drug usage in some fashion, so an academic knowledge of drug usage is useful. Psychological principles are applied to many areas of forensic practice, for example, in the selection of juries, eye witness testimony, and behavioral profiling. Forensic science takes place in the context of the criminal justice system and a foundation in this area is pertinent.

Although it was thought that all three courses were relevant to the study of forensic science, the development committee agreed it was important to give some flexibility and choice within the core courses. Students will come from a variety of majors and may need to have flexibility to be able to complete minor courses due to the significant curricular structure of some of the major programs, for example, medical technology.

Psychology 485 also is a relatively new course and has only been taught for two years, in Summer Quarter in 2003 and 2004. It has had a limit of 65 seats which have not been completely filled. Pharmacy 200 is generally offered in Spring Quarter to limits of between 150 and 200. In most years there have been open seats. Sociology 209 is offered Autumn, Winter, and Spring Quarters, with limits ranging from 50 to 210. Before including any of these courses as Foundational or Core courses, discussions were held with the chairs of the associated units. All were agreeable to offering additional seats if needed due to increased demand levels.

Electives:

Students must complete additional electives to satisfy a total of 23 hours at the 200-level or above. Prerequisites (listed in Appendix B) may be waived for minors, so students are advised to consult regularly with their advisor. Elective course offerings strengthen the scientific background needed by students in forensic sciences and are in disciplines that have forensic applications.

Anthro 603.01	Human Osteology (5)
Anthro 603.02	Skeletal Biology (5)
Anthro 603.03	Dental Anthropology (5)
Anthro 640.04	Forensic Anthropology (5)
Chem 221	Analytical Chemistry I (5)
Chem 587	Analytical Chemistry II: Instrumental Analysis (3)
Chem 588	Laboratory Practice in Instrumental Analysis (3)
CSE 551	Introduction to Information Security (3)
Entomology 500	General Entomology (5)
Entomology 661	Medical Entomology (5)
Med Tech 504	Clinical Correlations in Chemistry (2)
Med Tech 600.01	Molecular Techniques (2)
Med Tech 640	Advanced Laboratory Techniques (Distance) (4)
Med Tech 645.01	Clinical Chemistry (5)
Mol Gen 500/H500	General Genetics (5/6)
Mol Gen 605	Molecular Genetics I (3)
Mol Gen 606	Molecular Genetics II (3)
Mol Gen 607	Cell Biology (3)
Mol Gen 608	Genes and Development (3)
Mol Gen 640	The Genetical Basis of Evolution (5)
Pharmacology 600	General Pharmacology (3)
Pharmacy 200	The Rational and Irrational Use of Drugs (3)

Psych 485	Psychology and the Law (4)
Psych 511	Psychological Testing (4)
Psych 684	Psychology of Delinquency (5)
Sociology 209	Introduction to Criminal Justice (5)
Sociology 210	Sociological Aspects of Deviance (5)
Sociology 310	Sociology of Gangs (5)
Sociology 410/H410	Criminology (5)
Sociology 507	The Criminal Justice System (5)
Sph/Hrng 320	Principles of Phonetics
Sph/Hrng 420	Introduction to Speech Science
TXL& CLO 371	Textiles I

Note: Students may not count courses for both their major and a minor. They must designate whether they will count a course for either the major or the minor.

See Appendix E for syllabi from both foundational and advanced elective courses.

Administration and Advising

The minor will be listed in the OSU Bulletin as “an interdisciplinary minor offered through the Colleges of the Arts and Sciences.” An interdisciplinary Faculty Advisory Committee will be formed with representatives from the major departments offering coursework within the minor and will include a representative from the university academic advising community. The Committee will be appointed by the Associate Executive Dean of the Colleges of the Arts and Sciences according to the guidelines approved for interdisciplinary programs by the Colleges of the Arts and Sciences Committee on Curriculum and Instruction (CCI). This committee will evaluate the minor curriculum and course offerings and meet at least once per year in order to make recommendations to the CCI Subcommittee A regarding policy rules, the addition of courses to the minor, student assessment, and the status of the minor. The CCI will have curricular oversight of the program.

Academic advising will be done by professional departmental advisors, in conjunction with Arts and Sciences advisors, as well as by participating faculty. Program materials will be available through the Office of Interdisciplinary Programs within the Arts and Sciences, Arts and Sciences Curriculum Office, the Arts and Sciences Advising Service, and through the interdisciplinary program website of the Colleges of the Arts and Sciences. Advisors will be provided with any needed education re the requirements of the minor and the selection of courses. Students will be able to declare this minor with their advisor and DARS will be used to complete degree certification.

Enrollment Projection

It is expected that this minor will be attractive to a wide variety of majors. It is expected that students majoring within anthropology, medical technology, chemistry, molecular genetics, psychology, criminology, sociology, pharmacy, communication, nursing, and

health sciences will show particular interest as that is where student interest is currently noted. The minor will be advertised to students via several ways: through the creation of a minor requirement sheet maintained by the Colleges of the Arts and Sciences Curriculum Office, which will be circulated to advisors and relevant faculty; through the posting of curricular information on the Office of the Colleges of the Arts and Sciences website for interdisciplinary programs; and through establishing links on participating departments' websites. It is expected that the minor will initially attract a total of 40-50 students and grow to attract 100-150 students within five years. A similar introductory course at Michigan State University enrolls 400 students on a regular basis. It is expected that the introductory course here could experience that level of interest. The Faculty Advisory Committee will monitor growth of student participation in the minor and make recommendations about possible increases in seat availability.

Resources and Expenses

Current facilities and staff resources are adequate to support this minor. The interdisciplinary cooperation of units allows students to benefit from the resources that exist in disparate units in such a way that enhances the networking amongst units.

This minor requires the addition of one new course. As it will be taught in an interdisciplinary format, the demand on a single academic unit is not prohibitive. An interdisciplinary grant from the Colleges of the Arts and Sciences is being sought to offset the start up costs of the introductory course. As its enrollment is predicted to be significant, revenues will be generated to support further offerings. Current faculty levels are seen as adequate to staff the remaining courses as these are existing courses. As the minor assists in connecting interested students to specific courses, it is expected that new courses can be developed as there will be a body of students to populate them. Our current budgetary system should reinforce the development of new courses as the interested student body grows. See Appendix A for a listing of faculty who regularly teach courses and conduct research in this area.

Competitiveness With Other Institutions

At the moment, although there is burgeoning interest as noted by recent discussions within the CIC, there are limited programs within Ohio and our benchmark institutions, and very few from an interdisciplinary perspective. Related programs may be offered in Criminalistics or Criminal Justice, or housed within tracks in Chemistry or Anthropology, yet these are seen as narrower in scope than this proposed curriculum. A new undergraduate major in Forensic and Investigative Sciences has been developed at Indiana University Purdue University at Indianapolis. It accepted its first majors in Autumn 2004. Purdue offers a Forensic Science minor through the School of Health Sciences. Indiana University at Bloomington offers certificate programs in Forensic Science and Forensic Studies. Within Ohio, University of Toledo offers a minor in Forensic Science Investigation. A two-year associate degree is offered at a regional campus of the University of Cincinnati. Ohio University offers a major in Forensic Chemistry through the Department of Chemistry. Programs that encompass a more

interdisciplinary approach may be found at the University of Rhode Island, where students double major in Forensic Sciences and Anthropology, Biology, Chemistry, Psychology, or Computer Science. Although there are few established interdisciplinary programs within the CIC, discussions indicated that many are considering adding programs in this area. The Ohio State University will take a lead role in the establishment of this program. See Appendix C for sample programs at other institutions.

Administrative Support for the Minor

The establishment of this minor is supported at various levels. It has the support of the Executive Dean of the Colleges of Arts and Sciences, Jacqueline Royster. Additional program concurrence and support has been obtained from many academic units and administrators (see Appendix D).

Implementation Date

The minor in Forensic Science is proposed for implementation in Spring Quarter 2006.

Student Learning Assessment

Learning Goals:

1. Students should be able to articulate an understanding of the breadth and interdisciplinary nature of the field of forensic science.
2. Students should be able to articulate a basic knowledge of the methods and measures used in forensic science.
3. Students should be able to articulate an understanding of the social factors which impact on the work of forensic science.

Assessment Plan:

1. The enrollment pattern in the minor will be evaluated on a yearly basis to address the following questions. Who are the students enrolling in the minor? What courses are being used as core courses and as elective courses? Are there any impediments to completing the minor with respect to the frequency of course offerings or seat availability?
2. A focus group of graduating minors will be used the first year as an assessment tool for evaluating mastery of the learning goals of the minor*. This assessment will occur in the Spring Quarter. The focus group will explore student perceptions of: (1) the attainment of the above goals through the use of specific questions, and (2) the structure, availability, and sequencing of courses in the minor. Student mastery of the learning goals for the minor will be evaluated each of the first three years, then every 5th year.

*It is recognized that in the first year there may not be sufficient numbers of graduating seniors to convene a meaningful focus group. In this case, a focus group will be held in the second year.

3. As enrollments increase, we will move to a survey of graduating minors, again stressing of attainment of the above goals, and the structure, availability and sequencing of courses in the minor.

Dissemination:

The assessment will be supervised by the oversight committee for the minor and the results will be used for considering improvements in the minor program. The oversight committee also will summarize the results, along with any plans for changes and improvements in the minor, as a report to be distributed to Arts and Sciences Curriculum Subcommittee A and to the faculty and academic units participating in the minor.

APPENDIX A: FACULTY

Faculty listed below have research and/or teaching interests in Forensic Science or related disciplines at The Ohio State University. (This is not an exhaustive list of all faculty with interests in this area.)

Anish Arora	Department of Computer Science and Engineering
E. Scott Bair	Department of Geological Sciences
Paul Bellair	Department of Sociology
Michael Bissell	Department of Pathology
Robert Fox	Department of Speech and Hearing Science
John Gibbs	Department of Psychology
Terry Gustafson	Department of Chemistry
Fabian Hadipriono	Department of Civil and Environmental Engineering and Geodetic Science
Kathryn Jakes	Department of Consumer Sciences
Clark Larsen	Department of Anthropology
David Lee	Department of Computer Science and Engineering
Aleix Martinez	Department of Electrical and Computer Engineering
Popil Patil	Department of Pharmacy
Ruth Peterson	Department of Sociology
Sally Rudmann	School of Allied Medical Professions
Amada Simcox	Department of Molecular Genetics
Alfred Staubus	Department of Pharmacy
Sam Stout	Department of Anthropology
Lane Wallace	Department of Pharmacy
Dong Xuan	Department of Computer Science and Engineering

APPENDIX B: Prerequisites for Courses

Introductory Course

Arts & Sciences 211 None

Foundational Course

Anthro 305 Anthro 200 (will be waived)

Core Courses

Pharmacy 200 None

Psychology 485 Psychology 100

Sociology 209 None

Electives

Anthro 603.01 Anthro 200 or perm of instr
Anthro 603.02 Anthro 200, 603.01, or perm of instr
Anthro 603.03 Anthro 200 or equiv or perm of instr
Anthro 640.04 Anthro 603.01 or equiv
Chem 221 Chem 123 or equiv and eligibility to enroll in Math 151
Chem 587 Prereq or concur: Chem 521 or 532, and 541
Chem 588 Prereq or concur: Chem 587
CSE 551 CSE 314 or 321 or 502 or AMIS 531 or equiv, & 2nd writing course or perm of instr (prereqs may be waived)
Entomology 500 15 cr hrs in biological sciences
Entomology 661 500 and EEOB or Zoology 610 recommended
Med Tech 504 Admission to Med Tech or perm of instr
Med Tech 600.01 Admission to Med Tech or perm of instr
Med Tech 640 Admission to Med Tech or perm of instr
Med Tech 645.01 Admission to Med Tech or perm of instr
Mol Gen 500/H500 Biology 101 or 113 or H115 plus 5 additional cr hrs in biological sciences
Mol Gen 605 Biochem 511 and Math 152
Mol Gen 606 Mol Gen 605
Mol Gen 607 Mol Gen 500 or 606
Mol Gen 608 Mol Gen 500 or 606
Mol Gen 640 Mol Gen 500
Pharmacology 600 Some background in biochem and/or physiology or perm
Pharmacy 200 None
Psych 485 Psych 100
Psych 511 Psych 100, 219 or 221 or 320 or 321 or Stat 145 or 245
Psych 684 Psych 551 or equiv
Sociology 209 None
Sociology 210 None
Sociology 310 None
Sociology 410/H410 None

Sociology 507	Soc 487 and 488
Sph/Hrng 320	None
Sph/Hrng 420	320 or equiv and 340 or equiv and one course from Bio 101, 102, 113, 114, H115 or H116
Textl&Clo 371	2 nd year standing

APPENDIX C: SIMILAR PROGRAMS AT OTHER INSTITUTIONS

Forensic & Investigative Sciences

IUPUI
School of Science

School of
PUBLIC and ENVIRONMENTAL AFFAIRS
IU  **LAW**

Program Information

- [Forensic science and the FIS Program](#)
- [How to apply to the FIS program](#)
- [Checklist of Course Requirements](#)
- [Course Descriptions](#)
- [Faculty and staff](#)

Other Information about forensic science

- [General questions](#)
- [Crime scene investigation](#)
- [Forensic Anthropology](#)
- [Forensic Entomology](#)
- [Forensic Pathology](#)
- [Computer Forensics](#)

Links of interest

- [American Academy of Forensic Sciences](#)
- [Midwestern Association of Forensic Scientists](#)
- [American Society of Crime Laboratory Directors](#)
- [Indiana State Police](#)
- [Institute for Forensic Imaging \(Indianapolis\)](#)
- [Federal Bureau of Investigation](#)
- [Drug Enforcement Administration](#)
- [Bureau of Alcohol, Tobacco and Firearms](#)

Questions and more information

Dr. Jay A. Siegel - Director
Forensic and Investigative Sciences
Program
School of Science, LD326
402 N. Blackford Street
Indianapolis, Indiana 46202
317-274-6883
jasiegel@iupui.edu



Forensic science and the FIS program

Forensic science is the application of the methods of science to matters involving the public. In many cases this means the application of science in solving crimes. Forensic science is multidisciplinary; it involves chemistry, biology, physics, math, biochemistry, engineering, computer science, psychology, medicine, law, criminal justice, etc. Forensic scientists analyze evidence and testify in court. They may be called upon to attend some crime scenes, train police investigators and attorneys, and conduct research.

In Fall of 2004, IUPUI began the first forensic science degree program in Indiana. Completion of this program leads to the Bachelor of Science degree in Forensic and Investigative Sciences. All students take a core of science classes and university requirements. Then each student chooses one of the current six concentrations:

- Chemistry
- Biology
- Computer forensics
- Criminal Justice
- Psychology
- Environmental Science and Health Investigations

The program also includes courses in imaging and photography, law and forensic science, and laboratory courses in forensic chemistry and biology as well as an opportunity to do an internship at a crime laboratory. Graduates of the program will be able to seek employment in crime labs, scientific industries, environmental agencies and federal or local law enforcement.

University of Toledo-Minor

Minor in Forensic Science Investigation

The minor is open to all students at the University of Toledo. The minor is designed to provide an overview of the importance of forensic science evidence in the Criminal Justice System. The minor is designed for students seeking a career in law enforcement or related agencies responsible for investigating crimes and securing evidence. The minor is not meant for students wishing to pursue employment in a crime lab or a job that requires in-depth scientific analysis of evidence. These types of degrees require a major in selected natural sciences; however, the minor may be combined with a natural science major.

Required courses:

BIOL 2020 Mammalian Form and Function	(3 credit hours)
BIOL 2170 Fundamentals of Life Science II	(4 credit hours)
BIOL 2180 Fundamentals of Life Science II Lab	(1 credit hour)
CHEM 1100 Concepts in Chemistry	(3 credit hours)
CHEM 1150 Concepts in Chemistry Lab	(1 credit hours)
*CRIM 2210 Criminal Investigation I (Pre-requisite CRIM 1010)	(3 credit hours)
*CRIM 2220 Laws of Evidence (Pre-requisite CRIM 1010)	(3 credit hours)
*CRIM 3290 Criminal Investigation II (Pre-requisite CRIM 2210)	(3 credit hours)
CRIM 4940 Criminal Justice Internship The internship must be with an agency that either collects or analyzes evidence in criminal investigations.	(3 credit hours)

Total: 25 credit hours

* The pre-requisite for a class must be met.

University of Cincinnati- Associate degree program

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Undergraduate Programs



This program outline is for general information purposes only and is subject to change. It is not a specific curriculum guide for currently enrolled students.

program title	Forensics
program type	Associate's Degree
program code	34CJTINFO
college	Clermont
department	Humanities and Social Sciences Division
location	Regional Campus
last updated	11/16/2003

The Criminal Justice Technology program is a career-oriented, two-year associate degree program for traditional students wishing to prepare for careers in the criminal justice field and for working professionals wishing to enhance their credential. The program emphasizes the practical application of both conceptual knowledge and required skills.

Students pursuing the forensics option will find opportunities for career enhancement and promotion serving as law enforcement crime scene technicians who evaluate, gather, package and preserve evidence. Other career areas that make use of crime scene investigative skills include those working in a prosecutor's office or court.

Students may use the associate of applied science degree as an immediate educational goal or as a halfway marker on the way to a bachelor of science degree. A bachelor-completion program in Criminal Justice is now offered at the UC Clermont campus through a partnership with UC's College of Education.

Students majoring in Criminal Justice may also specialize in corrections, loss prevention, law enforcement or law enforcement with Police Academy.

UC Clermont also offers an OPOTA (Ohio Certified Basic Police Training) basic police academy. Students majoring in law enforcement who graduate from the police academy will receive 30 hours of credit toward their associate degree.

Students who continue their education and earn a bachelor's or graduate degree generally enjoy a broader choice of career opportunities. These more advanced degrees in criminal justice tend to benefit law enforcement officers in terms of promotion and duty assignment. Most federal agencies, such as the FBI, require both a baccalaureate degree and a number of years' experience or more advanced academic preparation.

Placement tests are administered by the Office of Enrollment Services without charge. These tests do not affect admission; however, the results are essential for proper placement in classes. The placement tests must be completed in order to register for English or math courses.

Freshman Year

English Composition I, II, III

General Chemistry & Lab I, II, III
Introduction to Criminal Justice
Introduction to Forensic Science
Criminal Procedures I, II
Criminal Law
Forensic Identification Technology
Firearms and Ballistics
Mathematics Electives
TOTAL

Sophomore Year

Human Biology
Effective Public Speaking
Forensic Pathology and Anthropology
Arson, Fire, and Explosives
Criminal Investigations I, II
Forensic Toxicology and Serology
Criminal Justice Field Placement
Criminal Justice Electives
Introduction to Information Processing
History Elective
Literature Elective
Social Science Electives
TOTAL

Since the college may update this program from time to time, and so students can be informed of all their options, degree-seeking students are encouraged to meet with their academic advisors each quarter.

The University of Cincinnati is an affirmative action, equal opportunity institution accredited by the Higher Learning Commission, and is a member of the North Central Association of Colleges and Schools.

If you plan to pursue an associate degree, contact UC Clermont's Enrollment Services and ask for application forms. UC Clermont's open admission policy means that any high school graduate will be accepted into the college regardless of the classes taken in high school. Non-graduates can qualify by providing GED scores. Enrollment Services can also help you financial aid information.

This program meets the hiring and promotion standards for a growing number of law enforcement agencies in the eastern Cincinnati area. The college technical advisory committee, consisting of leaders in the local law enforcement community, helps assure that the curriculum meets career needs.

The Program Coordinator and Criminal Justice faculty is available to all students in the program for academic advising and career counseling. Students are given opportunities to interact with the heads of various justice agencies through class exercises, guest speakers, and special seminars. Extra emphasis is placed on helping each student develop the written and testing skills necessary to assure successful placement.

Students may attend classes full-time or part-time, and can begin their program any quarter during the year. Criminal Justice courses are scheduled during days, evenings, and weekends throughout the year. Many local law enforcement agencies can provide tuition assistance, and UC Clermont's Financial Aid Office can help students apply for other kinds of financial assistance.

The University of Cincinnati is accredited by the North Central Association of Colleges and Schools.

For further information about this program, write, call, or email:

Enrollment Services
UC Clermont
4200 Clermont College Drive
Batavia, OH 45103
(513) 732-5319
or
1-866-4-GO2UCC

clc.admissions@uc.edu

For detailed information about the OPOTA certified Police Academy, call or write:

Police Academy
UC Clermont
4200 Clermont College Drive
Batavia OH 45103
(513) 558-7441 or (513) 732-5251

This program outline is for general information purposes only and is subject to change.
It is not a specific curriculum guide for currently enrolled students.

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Ohio University- Forensic Chemistry

Chemistry & Biochemistry OHIO UNIVERSITY

Undergraduate Majors

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e Research

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This page is put together to help prospective students understand more about the Forensic Chemistry program here at Ohio University. There is background information on the program, details of what the program entails, how potentially useful it can be and other information.

The Forensic Chemistry program was started by Dr. James Y. Tong, who has recently retired as director of the program. Our program currently has approximately 110 undergraduates and over 100 alumni. The degree feeds upon the strengths of our department in analytical chemistry and biochemistry and is the choice of the majority of our chemistry majors.

Though it is centered in chemistry, our program is profoundly interdisciplinary, involving chemistry, biology, physics, mathematics, and law enforcement classes. We have recently added coursework in genetics and biotechnology in response to the increasing role of DNA typing in forensic work. Thus many of our graduates major in chemistry and minor in biology, leaving them not only well equipped for working in crime laboratories, but also capable of finding positions in graduate schools and other industrial sectors.

Some idea of the quality of our program can be gauged from looking at the employment of our graduates. Our alumni include the directors of at least three crime laboratories and 40 or more graduates working in crime labs across the country. Other students have gone on to receive advanced degrees or have accepted positions in other laboratories. Because of our program's strong focus in analytical chemistry, our graduates are attractive to private industry and recruiters have commented on the excellent classroom and laboratory preparation our students receive.

One of the special benefits unique to the OU Forensic Chemistry experience is the ability of undergraduate students to participate in research projects with department faculty. Within the last year, 22 Forensic Chemistry students have worked on such projects as the development of methods for explosives residue analysis by liquid chromatography, DNA typing using laser induced fluorescence, portable instrumentation for drug and explosives detection, the detection of drugs of abuse in saliva and other body fluids, and the detection of gunshot residue on the hands of suspects. In the past ten years, fifteen papers in

referred journals have been published in which an undergraduate Forensic Chemistry major has been a co-author, and Forensic Chemistry majors have been co-authors on 61 papers presented at professional meetings, many of these presented by the students themselves.

If you need to find out more information about Ohio University in general check out our general web server. This gives you information about Ohio University and some nice campus views.

Who are the Faculty?

Peter Harrington joined the Department of Chemistry at Ohio University in 1989. He received a Ph.D. in Analytical Chemistry from the University of North Carolina in 1988. Dr. Harrington is interested in the development of intelligent chemical measurement devices. Currently, he uses sensors that are based on ion mobility spectrometry (IMS). These sensors are low cost, simple, sensitive, and amenable to miniaturization. Some IMS instruments are handheld and can be powered by flashlight batteries. These sensors have broad application, but one area of specific interest is forensic analysis. IMS instrumentation is presently used in airports to screen for explosives and by law enforcement agency to detect drugs. There is also interest in applying these sensors for environmental and biological problems.

Howard Dewald joined the Department of Chemistry at Ohio University in 1986. He received a Ph.D. in Analytical Chemistry from New Mexico State University in 1984. Dr. Dewald is interested in the development of electrochemical methods for characterizing gunshot residues. Dr. Dewald is currently the graduate chairman of the department, is a member of the editorial board of the Microchemical Journal, and holds a position on the Board of Directors of the Society for Electroanalytical Chemistry.

Associated Faculty Include:

Blaine Keckley Law Enforcement Technology

Gary Elkin Law Enforcement Technology

Scott Moody Forensic Biology

Nancy Tatarek Forensic Anthropology

Robert Powers Forensic Toxicology

What is Forensic Chemistry?

Forensic Chemistry is the application of chemistry to the investigation of crime. The crime, however, is not limited to crime against individuals, such as homicide, theft, fraud, and arson. Forensic Chemists are also involved in the investigation of crime against society, such as food adulteration, environmental pollution, use and distribution of unsafe chemicals, and dangerous working conditions.

Careers in Forensic Chemistry

The B.S. in Forensic Chemistry prepares you to work in a modern crime laboratory at the local, regional, state, or federal level. Graduates of our program can also work for other law enforcement agencies such as the Drug Enforcement Administration, Food and Drug Administration, Environmental Protection Agency, and Occupational Safety and Health Administration. The training also prepares you to work for private industries in their analytical, environmental, or toxicology laboratories.

Forensic Chemistry as Preparation for Graduate Work

The B.S. in Forensic Chemistry degree from Ohio University prepares students to pursue graduate work in forensic chemistry, forensic sciences, environmental sciences, industrial hygiene, analytical or medicinal chemistry, or toxicology.

Forensic Chemistry as Pre-Medicine

Many students are coming to college to major in pre-medicine - more than the medical schools can absorb. Many students who do not go on to medical school are highly qualified and are more suited to careers in chemistry or other sciences. Unfortunately, the ordinary pre-medicine program does not prepare them for any other career. One way to provide yourself with some career insurance as well as to explore other career choices is to major in Forensic Chemistry. A

student in our B.S. Forensic Chemistry program needs only four to five additional biology courses to be well prepared for medical schools. If you happen to be interested in Forensic Medicine, what would be a better preparation than Forensic Chemistry?

Forensic Chemistry as Pre-law

Most criminal lawyers, prosecutors, and judges are unprepared in understanding the capabilities of modern forensic sciences. If you are scientifically oriented and plan to go to law school, the forensic chemistry background will make you an exceptional lawyer in criminal as well as civil cases. The combination of forensic chemistry and law will also appeal to private corporations, which have to deal with governmental regulations, patent infringements, industrial piracy, and product liability.

Preparation for Entering the B.S. in Forensic Chemistry Program

High school graduates qualified for admission to Ohio University will be admitted to the program. We recommend that you have a minimum preparation of one year of high school chemistry, one year of biology, and three, preferably four, years of mathematics, with good reading and writing skills. A chemistry placement exam is administered during Precollege to help assure proper placement for the first college chemistry course.

The B.S. in Forensic Chemistry Program at Ohio is the only one of its kind in Ohio. There are only a dozen undergraduate programs in the United States that offer training in forensic sciences or criminalistics. Most of these programs are based in criminal justice departments instead of chemistry and are not as chemistry oriented as this one. Our program is probably the most comprehensive program in forensic chemistry, which prepares students for jobs and advanced studies not only in forensic chemistry or forensic science but also in other chemistry-related areas.

What are the Requirements?

The B.S. in Forensic Chemistry is a four year program. 192

quarter hours are required for graduation, of which at least 90 hours must be in courses in the College of Arts and Sciences numbered 200 or above.

- A. College of Arts and Sciences (A&S) Requirements for B.S. degrees: 18 hrs. Humanities courses, 18 hrs. Social Science courses, 18 hrs. Natural Science courses, and 2 years (24 hrs.) in one foreign language or one year (12 hrs.) each in two foreign languages. Students who enter Ohio with four years in one foreign language or two years in each of two foreign languages may consider the foreign language requirement fulfilled.
- B. General Education Requirements: See Ohio Undergraduate Catalog for full details. Courses you have to take: Eng 151, freshman composition, (5 hrs., waived if you have AP English credit), Eng 305J, (4 hrs., will also count towards A&S humanities requirement), Tier 3 (4 or 5 hrs.). Courses you may have to take: One or more Mathematics courses, which are prerequisite of Math 263A, Analytical Geometry and Calculus, if you are not prepared to take Math 263A. One or more Tier 2 courses if the courses fulfilling your A&S requirements and other courses you take do not fulfill all the Tier 2 requirements.
- C. Program Requirements: 61 hrs. Chemistry, 19 hrs. Law Enforcement Technology (LET), 20 hrs. Biological Sciences, 15 hrs. Physics, 8 hrs. Mathematics, and 5 hrs. Psychology. The Chemistry, Biological Science, Physics, and Math courses will more than fulfill the A&S and Tier 2 requirements in natural sciences. The titles of the courses (hrs. in parentheses) are:

Chemistry : 151, 152, 153 Fundamentals of Chemistry (15), 241, 242 Quantitative Analysis (5), 330 Introduction to Toxicology (4), 351 Physical Chemistry (4), 431/434 Chemical Separation (4), 432/435 Chemical Instrumentation and Electrochemistry (4), 433/436 Spectrochemical Methods of Analysis (5), 487 Forensic Chemistry (6)

Law Enforcement Technology : 100 Introduction to LET (3), 120 Constitutional, Criminal, and Civil Laws (3), 140 Criminalistics (3), 200 Procedure, Rules and Test of Evidence (4), 250 Vice and Narcotic Control (3), 260 Criminal

Investigation (3)

Biological Science : 170, 171 Introduction to Zoology (10),
325 General Genetics (5), 326 Laboratory Genetics (5)

Physics : 251, 252, 253 General Physics (Calculus based)
(15)

Mathematics : 263A, 263B Analytical Geometry and
Calculus (8)

Psychology: 221 Statistics for the Behavioral Sciences (5)

Electives 4 from the following: CHEM 489 Biochemistry (4)
or CHEM 476 Modern Inorganic Chemistry (4), CHEM 488A
(3) & CHEM 488B (3) Special Topics in Forensic Science,
CHEM 460 Spectroscopic Method in Organic Chemistry (3)
or BIOS 364 Forensic Biology (4)

Forensic Chemistry Internship

During the summer between your junior and senior year, you are encouraged to do an internship under the supervision of established forensic scientists in an approved forensic laboratory. You can earn up to ten hours in CHEM 497, Forensic Chemistry Internship.

Other Electives

Ohio offers many courses of interest to forensic chemists, such as anthropology, archaeology, computer science, court room rhetoric, criminology, environmental laws, human psychophysiology (basis of lie detector tests), statistics, and other Psychology and Sociology courses related to crime.

Students Interested in Environmental Chemistry can elect to take environment-related courses offered by ten departments.

Students Interested in Pre-law can elect to take courses in the pre-law programs at Ohio.

Students Interested in Pre-medicine should take 5 courses, in addition to BIOS 170, 171, and 364 required in the

Forensic Chemistry program: BIOS 172, 173 Introduction to Zoology (4), BIOS 325 General Genetics (5), BIOS 342, 343 Principles of Physiology (6) to prepare for the MCAT as well as to earn a minor in Biological Science. Qualified students interested in DNA fingerprint can take BIOS 326 Laboratory Genetics (4) followed by research in DNA analysis with a graduate faculty member.

Scholarships :

Ohio offers many scholarships based on academic achievement. In addition, the Department of Chemistry and Biochemistry gives many endowed scholarships to students in the B.S. Forensic Chemistry Program. To be considered for the chemistry scholarships, be sure to:

- a. Declare Forensic Chemistry as your major (code 3310) on your admission application
- b. Indicate on the admission application that you want to be considered for scholarships
- c. Send for a special application to the Chemistry Scholarship Committee, Department of Chemistry and Biochemistry, Ohio University, Athens, Ohio 45701-2979.

Graduate Work in Forensic Chemistry

If you already have a B.S. degree in Chemistry and are interested in doing graduate work in Forensic Chemistry, we suggest that you apply for admission as a graduate student working towards a Ph.D. in Analytical Chemistry at Ohio University. You can then do research in a forensic chemical problem with one of our professors in Analytical Chemistry. You will have the advantage of receiving financial aid in the form of teaching or research assistantships and a full tuition waiver. Most M.S. programs in forensic science do not have graduate assistantships and you have to pay your own way.

The American Society of Crime Laboratory Directors has a good [webpage](#) that gives some details on choosing a forensic program. The best place to go is the equivalent of a home page for [Forensic Science](#) on the web. This should give you access to all the known sites around the world related to Forensic Science. If you need to find out more information

about Ohio University in general check out our [web server](#) or the [prospective student](#) page. This gives you information about Ohio University and some nice campus views.

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Information on this page was last updated on Saturday, August 28, 2004

APPENDIX D:
Program Concurrence Forms

**The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form**

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05
 Initiating Academic Unit Date

Forensic Science
 Program Title

Minor Undergraduate
 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Anthropology
 Academic unit asked to review the request

January 13, 2006
 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

This is a wonderful opportunity to develop a broadly interdisciplinary minor, drawing together disciplines across campus in forming a timely and innovative minor.

Signatures

1.	<i>Alan S. Larsen, Chair</i>	Anthropology	8 Dec. 2005
	Name	Position	Unit
2.	<i>W. Scott Myer</i>	Undergrad Studies Chair	12/9/05
	Name	Position	Unit
3.			
	Name	Position	Unit

The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05

 Initiating Academic Unit Date

Forensic Science

 Program Title

Minor Undergraduate

 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Chemistry

 Academic unit asked to review the request

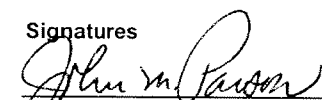
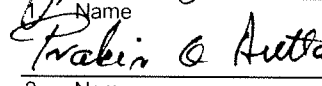
January 13, 2006

 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

The Department of Chemistry fully supports the proposed undergraduate interdisciplinary minor in Forensic Science.

Signatures

	Vice Chair for Undergraduate Studies Chemistry		12/06/05
1. Name	Position	Unit	Date
	Chair	Chemistry	12/8/05
2. Name	Position	Unit	Date
3. Name	Position	Unit	Date

**The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form**

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05

 Initiating Academic Unit Date

Forensic Science

 Program Title

Minor Undergraduate

 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Consumer Sciences

 Academic unit asked to review the request

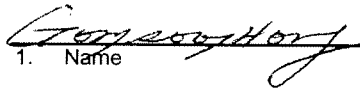
January 13, 2006

 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

The Department of Consumer Sciences supports the request, finding it essential for students pursuing the forensic field to understand the methods, social factors, and interdisciplinary nature of forensics.

Signatures

1. 	Professor and Chair Position	Consumer Sciences Unit	12/07/05 Date
2. Name	Position	Unit	Date
3. Name	Position	Unit	Date

Linda Schoen

From: Susan Fisher [fisher.14@osu.edu]
Sent: Monday, January 23, 2006 2:31 PM
To: 'Linda Schoen'
Subject: RE: Proposed Undergraduate Minor in Forensic Science

Linda,

Entomology approves of the minor and wishes to be included among the elective courses. I have hard copies, but not electronic versions, so I'll put the hard copies in the mail..

Susan

-----Original Message-----

From: Linda Schoen [mailto:schoen.16@osu.edu]
Sent: Monday, January 23, 2006 11:06 AM
To: fisher.14@osu.edu
Cc: 'caroline+@osu.edu'; 'Linda Schoen'
Subject: FW: Proposed Undergraduate Minor in Forensic Science

Dear Susan,

Dave told me that he forwarded this request on to you. I am ready to submit this minor and would like to be able to list your courses (below) on this minor. All of the university curriculum committees are requiring that responses from all units be attached to the proposal. An email outlining your response is adequate. Also, I still need copies of the syllabi as well. Please let me know if you have any questions. Thanks!

Linda

Linda G. Schoen
Assistant Executive Dean
The Colleges of the Arts and Sciences
The Ohio State University
105 Brown Hall
190 West Seventeenth Avenue
Columbus, OH 43210
(614) 247-8277
schoen.16@osu.edu

-----Original Message-----

From: Linda Schoen [mailto:schoen.16@osu.edu]
Sent: Monday, December 05, 2005 7:13 PM
To: 'Dave Denlinger'
Cc: 'Caroline Breitenberger'; 'Linda Schoen'
Subject: Proposed Undergraduate Minor in Forensic Science

Dear David,

As you may know, a group of dedicated faculty have been working on an undergraduate interdisciplinary minor in Forensic Science. The development group would like to include the courses below from your academic unit. If you are agreeable to this and support the minor, please send me electronic copies of the syllabi and also sign and return the attached concurrence form. All of the curriculum committees that review these minors require concurrence forms from units with listed courses, so it is important that you return the form if you wish your courses to be included in this minor. If you have any questions or need additional time to review this proposal, please contact me. Thanks!

Linda

Entomology 500
Entomology 661

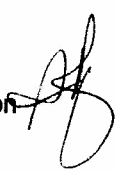
Linda G. Schoen
Assistant Executive Dean
The Colleges of the Arts and Sciences
The Ohio State University
105 Brown Hall
190 West Seventeenth Avenue
Columbus, OH 43210
(614) 247-8277
schoen.16@osu.edu



Medical Technology Division

1583 Perry Street
Columbus, OH 43210-1234
Phone: (614) 292-7303
FAX: (614) 292-0210
www.amp.ohio-state.edu/MT/

Memo

To: Linda Schoen, Assistant Executive Dean
From: Sally V. Rudmann, Director, Medical Technology Division 
Date: December 12, 2005
Re: Concurrence: Forensic Sciences Minor

I am writing to indicate my support for the proposed Forensic Sciences Minor in the Colleges of the Arts and Sciences with the inclusion four Medical Technology courses, MT 504, MT 600.01, MT 640 and MT 645.01, as electives for students in the minor.

I have been part of the planning team for the minor and I feel that the proposal is well conceived, the content appropriate, and that it meets a significant student demand from a number of programs across the University. I anticipate that a number of the MT majors may find this minor attractive and that it will provide a suitable introduction to the science for students who intend to apply for graduate work in Forensic Science as well as for those whose long term aspiration is Forensic Pathology.

Please contact me should you require additional information.

The most comprehensive health sciences center in America

**The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form**

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences	12/5/05
Initiating Academic Unit	Date
Forensic Science	
Program Title	
Minor	Undergraduate
Program Type (Major or Major Track/Minor or Minor Track/Certificate)	Level

Type of Request (Circle): New Program Program Change

School of Allied Medical Professions- Medical Technology
Academic unit asked to review the request
January 13, 2006
Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

Signatures

1. Name	Avery C. Ludmann	Director	12/6/05
2. Name			Date
3. Name			Date

Linda Schoen

From: Dr. Tejwani [tejwani.1@osu.edu]
Sent: Tuesday, December 06, 2005 11:26 AM
To: schoen.16@osu.edu
Subject: Fwd: Re: Fwd: Undergraduate Minor In Forensic Science
Follow Up Flag: Follow up
Flag Status: Red

Hi Linda

Dr. Wolfgnag Sadee has asked me to respond to your email to him about the creation of a Forensic Science Minor Program. Please know that our department enthusiastically support the creation of this Minor. I am herewith attaching the Concurrence form. We are also faxing the form with signatures to the given address.

Thanks for recommending our course Pharmacology 600 as an elective course. Pharmacology 600 is a classroom (face-to-face) course given in the Spring quarter. An online version of this course is Pharmacology 600D that is given in Summer, Autumn and Winter quarters. I am herewith attaching the schedule and syllabus of both courses.

Please feel free to contact me if you need any help or information.

Gopi

Gopi A. Tejwani, Ph.D.

Associate Professor

Vice-Chairman for Education

Director

Graduate Studies Program

Department of Pharmacology

The Ohio State University

College of Medicine and Public Health

5072 Graves Hall, 333 West 10th Ave

Columbus OH 43210-1239, USA

Tel. 614-292-7092

Fax. 614-292-7232

E-mail: Tejwani.1@osu.edu

Home Page:

<http://medicine.osu.edu/pharmacology/1166.cfm>

Dear Professor Sadee,

As you may know, a group of dedicated faculty have been working on an undergraduate interdisciplinary minor in Forensic Science. The development group would like to include the course below from your academic unit. If you are agreeable to this and support the minor, please send me an electronic copy of the syllabus and also sign and return the attached concurrence form. All of the curriculum committees that review these minors require concurrence forms from units with listed courses, so it is important that you return the form if you wish your course to be included in this minor. If you have any questions or need additional time to review this proposal, please contact me. Thanks!

Linda

Pharmacology 600

Linda G. Schoen
Assistant Executive Dean
The Colleges of the Arts and Sciences
The Ohio State University
105 Brown Hall
190 West Seventeenth Avenue
Columbus, OH 43210
(614) 247-8277
schoen.16@osu.edu

The Ohio State University Colleges of the Arts and Sciences Program Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences	12/5/05
Initiating Academic Unit	Date

Forensic Science	
Program Title	

Minor	Undergraduate
Program Type (Major or Major Track/Minor or Minor Track/Certificate)	Level

Type of Request (Circle): New Program Program Change

Department of Pharmacology	
Academic unit asked to review the request	

January 13, 2006	
Date response is needed	

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

Forensic Science is an important field to study laws pertaining to different areas of medicine. The Ohio State University is blessed in having many faculty members who are experts in this field and capable of teaching a variety of courses in this field. The Department of Pharmacology, College of Medicine enthusiastically support the creation of Minor Program in the field of Forensic Science. Many undergraduate students will be benefited for having a choice to take the Forensic Science Minor.

Signatures

Gopi Tejwani	Vice Chair for Education; Director, Graduate Program	Pharmacology	December 6, 2005
1. Name	Position	Unit	Date

Wolfgang Sadee	Chairman	Pharmacology	December 6, 2005
2. Name	Position	Unit	Date

3. Name	Position	Unit	Date

Please return this form to the ASC Curriculum Office, 105 Brown Hall, 190 W. 17th Avenue or fax to 688-5678.

08/09/05

Linda Schoen

From: Lane J. Wallace [wallace@dendrite.pharmacy.ohio-state.edu]
Sent: Wednesday, December 07, 2005 12:32 PM
To: Linda Schoen
Subject: Re: Proposal for Undergraduate Interdisciplinary Minor in Forensic Science



ph200_syllabus_20
05.doc (40 KB...

Linda,

I read through the proposal for the Undergraduate Interdisciplinary Minor, and I think this looks like a wonderful educational opportunity. I am attaching the syllabus for the Pharmacy 200 "Rational and Irrational Use of Drugs" course. I saw Popat Patil's suggestions for changing the course content, and I do not agree with him. Adding pesticides at the expense of what I think is interesting material relative to non-medical use of drugs is not a good idea.

Lane

At 03:52 PM 11/28/2005, you wrote:

>Dear Colleagues,

>

>At long last, I think the proposal for this minor is almost ready to submit.

>The final steps will be to gather syllabi and concurrence forms from

>all of the chairs/directors of courses listed on the minor and then to

>request for concurrence forms from any other appropriate units. The

>syllabus for the proposed introductory course is at the end of the

>proposal. Please let me know if you have any comments/suggestions and

>also if appropriate, please let your chairs/directors know that I will

>be contacting them for concurrence. Also, please let me know if I have

>left someone off the development committee listing on the first page.

>Thanks for your participation in this effort!

>

>Linda

>

>Linda G. Schoen

>Assistant Executive Dean

>The Colleges of the Arts and Sciences

>The Ohio State University

>105 Brown Hall

>190 West Seventeenth Avenue

>Columbus, OH 43210

>(614) 247-8277

>schoen.16@osu.edu

>

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**The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form**

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05

 Initiating Academic Unit Date

Forensic Science

 Program Title

Minor Undergraduate

 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Psychology

 Academic unit asked to review the request

January 13, 2006

 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

The Department of Psychology is pleased to give its concurrence for

 the undergraduate interdisciplinary minor in Forensic Science.

Signatures

1.	Name <i>Stephen Wiley</i>	Position	Unit Psychology Department	Date <i>12/08/05</i>
2.	Name	Position	Unit	Date
3.	Name	Position	Unit	Date

**The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form**

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05

 Initiating Academic Unit Date

Forensic Science

 Program Title

Minor Undergraduate

 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Sociology

 Academic unit asked to review the request



January 13, 2006

 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

We strongly support the forensic science minor. Good luck.

Signatures

1.		Director, Undergraduate Studies	Sociology	1-12-06
	Name	Position	Unit	Date
2.		Chair	Sociology	1/13/06
	Name	Position	Unit	Date
3.				
	Name	Position	Unit	Date

The Ohio State University
Colleges of the Arts and Sciences Program Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental and college reactions to proposed development of and changes to academic programs. A letter may be substituted for this form.

An academic unit initiating a request should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should be allowed two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before this form and all other accompanying documentation may be forwarded to the Office of Academic Affairs.

A. Information from the academic unit *initiating* the request

The Colleges of the Arts and Sciences 12/5/05

 Initiating Academic Unit Date

Forensic Science

 Program Title

Minor Undergraduate

 Program Type (Major or Major Track/Minor or Minor Track/Certificate) Level

Type of Request (Circle): New Program Program Change

Department of Speech & Hearing Science

 Academic unit asked to review the request

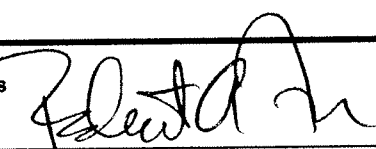
January 13, 2006

 Date response is needed

B. Information from the academic unit *reviewing* the request should include a reaction to the proposal, including a statement of support or non-support (continued on the back of this form or a separate sheet, if necessary).

This is an excellent interdisciplinary minor which should be of significant interest to a wide range of students

 and disciplines. I enthusiastically endorse this minor proposal.

Signatures  9 December 2005

 1. Robert A. Fox Department Chair Sph/Hmg Science Date

2. Name Position Unit Date

3. Name Position Unit Date

**The Ohio State University
Colleges of the Arts and Sciences New Course Request**

Arts and Sciences

Academic Unit

Arts and Sciences

Book 3 Listing (e.g., Portuguese)

211 Introduction to Forensic Science

Number

Title

Forensic Science

U

5

18-Character Title Abbreviation

Level

Credit Hours

Summer

Autumn

Winter

X

Spring

Year 2006

Proposed effective date, choose one quarter and put an "X" after it; and fill in the year. See the OAA curriculum manual for deadlines.

A. Course Offerings Bulletin Information

Follow the instructions in the OAA curriculum manual. If this is a course with decimal subdivisions, then use one New Course Request form for the generic information that will apply to all subdivisions; and use separate forms for each new decimal subdivision, including on each form the information that is unique to that subdivision. If the course offered is less than a quarter or a term, please complete the Flexibly Scheduled/Off Campus/Workshop Request form.

Description (*not to exceed 25 words*): An introduction to the major concepts, issues, and techniques in

forensic science,

Quarter offered: AU/SP

Distribution of class time/contact hours: 3- 1 ½ hrs cl

Quarter and contact/class time hours information should be omitted from Book 3 publication (yes or no):

Prerequisite(s):

None

Exclusion or limiting clause: N/A

Repeatable to a maximum of 0 credit hours.

Cross-listed with:

Grade Option (Please check): Letter S/U Progress What is course is last in the series?

Honors Statement:

Yes No

GEC: Yes No X

Admission Condition

Off-Campus:

Yes No

EM: Yes No X

Course: Yes No

Other General Course Information:

(e.g. "Taught in English." "Credit does not count toward BSBA degree.")

B. General Information

Subject Code 430106

Subsidy Level (V, G, T, B, M, D, or P) B

If you have questions, please email Jed Dickhaut at dickhaut.1@osu.edu.

1. Provide the rationale for proposing this course:

This course provides introductory foundational content for the interdisciplinary minor in Forensic Science. It is required for the minor.

2. Please list Majors/Minors affected by the creation of this new course. Attach revisions of all affected programs.

This course is (check one): Required on major(s)/minor(s) A choice on major(s)/minors(s)
 An elective within major(s)/minor(s) A general elective:

3. Indicate the nature of the program adjustments, new funding, and/or withdrawals that make possible the implementation of this new course.

An Arts and Sciences interdisciplinary grant will be sought to seed the initial teaching of this course. It is expected that generated revenues will allow for the continuation of this offering.

4. Is the approval of this request contingent upon the approval of other course requests or curricular requests?

Yes No List:

5. If this course is part of a sequence, list the number of the other course(s) in the sequence: _____


6. Expected section size: 200 Proposed number of sections per year: 2

7. Do you want prerequisites enforced electronically (see OAA manual for what can be enforced)? Yes No

8. This course has been discussed with and has the concurrence of the following academic units needing this course or with academic units having directly related interests (*List units and attach letters and/or forms*):
Not Applicable

9. **Attach a course syllabus that includes a topical outline of the course, student learning outcomes and/or course objectives, off-campus field experience, methods of evaluation, and other items as stated in the OAA curriculum manual and e-mail to ascurofc@osu.edu.**

Approval Process The signatures on the lines in ALL CAPS (e.g. ACADEMIC UNIT) are required.


1.  LINDA GAIL SCHOEN 1/24/06
Academic Unit Undergraduate Studies Committee Chair Printed Name Date

2. _____
Academic Unit Graduate Studies Committee Chair Printed Name Date

3. **ACADEMIC UNIT CHAIR/DIRECTOR** Printed Name Date

4. **After the Academic Unit Chair/Director signs the request, forward the form to the ASC Curriculum Office, 105 Brown Hall, 190 West 17th Ave. or fax it to 688-5678. Attach the syllabus and any supporting documentation in an e-mail to ascurofc@osu.edu. The ASC Curriculum Office will forward the request to the appropriate committee.**

5. *N/A*
COLLEGE CURRICULUM COMMITTEE Printed Name Date

6.  Edward A. Adelson 2-20-06
ARTS AND SCIENCES EXECUTIVE DEAN Printed Name Date

7. Graduate School (if appropriate) Printed Name Date

8. University Honors Center (if appropriate) Printed Name Date

9. Office of International Education (if appropriate) Printed Name Date

10. **ACADEMIC AFFAIRS** Printed Name Date

Arts and Sciences 211

INTRODUCTION TO FORENSIC SCIENCE

5 credit hours

Syllabus

Course Description

This team-taught interdisciplinary course will give students an introduction to the major concepts, issues and techniques in forensic science. It is designed to expose students to different disciplines and career paths within forensic science.

Student Learning Outcomes

Students successfully completing the course will:

1. Understand the breadth and interdisciplinary nature of the field of forensic science.
2. Exhibit a basic knowledge of the methods and measures used in forensic science.
3. Understand the social factors which impact on the work of forensic science.

Required Text: "Criminalistics: An Introduction to Forensic Science," 8th Ed., by Richard Saferstein, (2

Lecture #	Lecture Topics	Chapter(s)
1	Introduction to the course; the nature of forensic science	Chapter 1
2	Who's who in forensic science; disciplines and backgrounds	
3	The crime laboratory	
4	The crime scene	
5	Physical evidence; types, classification, probative value	
6	Physical Properties: Fundamentals	Chapter 4
7	Physical Properties: Glass and Soil	Chapter 4
8	Physical Properties: Statistics and the Limits of Measurements	Handout
9	Organic Analysis: Chromatography	Chapter 5
10	Organic Analysis: Molecular Spectroscopy	Chapter 5

11	Organic Analysis: Mass Spectrometry	Chapter 5
12	Midterm 1	
13	Inorganic Analysis: Atomic Spectroscopy	Chapter 6
14	The Microscope: Fundamentals	Chapter 7
15	The Microscope: Hair, Fibers and Paint	Chapter 8
16	Drugs	Chapter 9
18	Drugs	
19	Serology	Chapter 12
20	Serology	
19	Toxicology	Chapter 10
20	Toxicology	
21	Midterm 2	
22	DNA	Chapter 13
23	DNA	
24	DNA	
25	DNA	
26	Forensic Anthropology	
27	Speech Analysis	
28	The Court Room and the Expert Witness	
29	Criminal Justice	
30	Criminal Justice and Wrap up	

Assessment

There are two midterms and a final exam held during finals week. No make up exams will be given without prior permission from the instructor.

Midterm 1: 30%
Midterm 2: 30%
Final Exam: 40%

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (http://studentaffairs.osu.edu/info_for_students/csc.asp).

Disability Services

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

Introduction to Forensic Anthropology
(Anthropology 305)
W05

Instructor: Sam D. Stout
Office: 217A Lord Hall
e-mail: stout.126@osu.edu

Required Texts:

Byers, S.N. 2005 Introduction to Forensic Anthropology (2nd Edition), Allyn and Bacon, Pub.

Steadman, D.W. (ed.) 2003 Hard Evidence: Case Studies in Forensic Anthropology. Prentice Hall, Pub. [The purpose of this book is text provide case studies that exemplify the material and methods covered in the main text.]

Course Description:

Forensic Anthropology is an applied area of physical anthropology. It employs methods developed in osteology, skeletal biology, bioarchaeology, and paleopathology to the recovery and identification of human remains in a medico-legal context. Forensic anthropologists are usually called upon when human or suspected human remains are skeletonized or are too fragmented or decomposed to identify through a normal autopsy. This course will introduce students to the field of forensic anthropology. Specifically, it will survey the basic methods employed by forensic anthropologists to recover and analyze human skeletal remains. More generally, this course will also acquaint students with the broader field of forensic science.

SCHEDULE OF TOPICS AND READING ASSIGNMENTS

{The reading assignments listed first refer to chapters in the Byers [B] text, followed by assigned readings in the Steadman reader [S].}

Week 1 (Jan. 4 & 6)

Tues. Introduction, course organization, and historical background
[B] Ch. 1.

Thurs. A survey of human osteology and odontology

[B] Ch. 2

[S] Ch. 1, "Introducing Forensic Anthropology" by Steadman

Week 2 (Jan. 11 & 13)

Tues. Establishing the forensic context. {Quiz 1}

[B] Ch.3

[S] Ch. 16, "The Pawn Shop Mummified Head: Discriminating among forensic, historic, and ancient contexts," by DW Steadman

Thurs. Recovery scene methods

[B] Ch. 4

[S] Introduction to Section II, Search and Recovery, pp. 87-96

Ch. 7 "Love Lost and Gone Forever", by DM Glassman

Ch. 8 "Unusual 'Crime' Scenes: The Role of Forensic Anthropology in Recovering and Identifying American MIAs," by RW Mann et al.

Ch. 9 “The Contributions of Archaeology and Physical Anthropology to the John McRae Case,” by NJ Sauer et al.

Week 3 (Jan. 18 & 20)

Tues. Estimating time since death {Quiz 2}

[B] Ch. 5

[S] Ch. 12 “Taphonomy and Time: Estimating Postmortem Interval,” by JC Love and M.K. Marks

Ch. 13 “The Skull on the Lawn: Trophies, taphonomy, and Forensic Anthropology,” by P Willey and P Leach

Thurs. Methods, Initial treatment, and examination of human remains (evidence)

[B] Ch. 6

[S] Ch. 15 “Mitochondrial DNA: Solving the Mystery of Anna Anderson,” by T Melton

Ch. 17 “An Incidental Finding,” by H Gill-King (video superimposition)

Ch. 18 “Small Bones of Contention,” by SD Stout (histology)

Week 4 (Jan. 25 & 27)

Tues. Attribution of ancestry and the issue of race {Quiz 3}

[B] Ch. 7]

[S] Ch. 6, Case 2, p.83

Thurs. Attribution of sex

[B] Ch. 8

[S] Ch. 2 “The Herring Case-An Outlier,” by KR Burns

Ch. 3 “Multidisciplinary Approach to Human Identification in Homicide Investigation: A Case Study from New York,” by DH Ubelaker et al

Week 5 (Feb. 1 & 3)

Tues.-Thurs. Estimating age at death

[B] Ch. 9

Week 6 (Feb. 8 & 10)

Tues. EXAM 1

Thurs. Death, trauma, and the skeleton {Quiz 4}

[B] Chs. 10-12

[S] Introduction to Section III, Interpretation of Trauma and Taphonomy, by DS Steadman

Ch. 10 “Look Until You See: Identification of Trauma in Skeletal Material,” by OC Smith et al.

Ch. 11 “The Interface of Forensic Anthropology and Forensic Pathology in Trauma Interpretation,” by DH Ubelaker and SE Smialek

Ch. 14 “Death in Paradise: Human Remains Scavenged by a Shark,” by B Anderson et al. Projectile trauma

[B] Ch. 11

Week 7 (Feb. 15 & 17)

Tues. Antemortem skeletal conditions, and postmortem changes to bone

[B] Chs. 14 & 15 {Quiz 5}

Thurs. Aspects of individualization and human identification

[B] Ch. 16 & 17

[S] Ch. 5 "Multiple Points of Similarity," DW Steadman and LW
Konigsberg

Week 8 (Feb. 22 & 23)

AAFS meetings (Guest lectures and video)

Week 9 (March 1 & 3) [Book Reviews Due]

Tues. The courtroom, expert testimony

[B] Ch. 18

[S] Ch. 6 "Trials in Court: The Forensic Anthropologist Takes the Stand,"
by KAR Kennedy

Thurs Applications and ethics in forensic anthropology

Ch. 19 "Corpi Aquaticus: The Hardin Cemetery Flood of 1993," by PS
Sledzik and AW Willcox

Ch. 20 "Planes, Trains, and Fireworks: The Evolving Role of the
Forensic Anthropologist in Mass Fatality Incidents," FP Saul and JM
Saul

Ch. 21 "Science Contextualized: the Identification of a U.S. MIA of the
Vietnam War from Two Perspectives," by AW Bunch and CC Shine

Ch. 22 "Forensic Anthropology and Human Rights: The Argentine
Experience," by M Doretti and CC Snow

Week 10 (March 8 & 10)

Tues. Wrap-up and review for last exam

Thurs. EXAM 2

STUDENT EVALUATION AND GRADES:

Quizzes [35%]: Beginning with the second week of classes, there will be short (\leq minute), weekly quizzes (N=5) over reading and lecture material relating particular topic(s) that have been covered up to that date. There will be no quiz during the weeks in which a regular exam is scheduled, Week 8, or the last 2 weeks of classes.

Exams [60%]: There will be two regular exams. The second exam will be comprehensive, since much of the material covered in the second exam builds upon material covered earlier.

"Book Review"[5%]: As soon as possible, within the first two weeks of class, each student must identify a book (not an article) of their own choosing that relates to both this course and their individual interests. A short (\leq 1 page), typed review of this book is to be handed in on or before the **Tuesday, March 1st class**. Reviews should include proper bibliographic information and primarily include a discussion of how this book relates to biological anthropology and your academic interests. It is meant for your enjoyment and enrichment. The book you choose can be of any kind, as long as it relates to **forensic science**, and your interests. Some examples include: Ferllini, R. (2002) *Silent Witness: How Forensic Anthropology Is Used To Solve The World's Toughest Crimes*, by Roxana Ferllini (2002), Firefly Press; Rhine, S. (1998) *Bone Voyage: A Journey in Forensic Anthropology*; W.R. Maples and Michael Browning (1994) *Dead Men Do*

Tell Tales; D.D. Scott, P. Willey, and M.A. Connor (1998) *They Died With Custer: Soldier's Bones of the Little Bighorn*; Aaron Elkins (1991) *Make No Bones*; and any of the works by the practicing forensic anthropologist Kathy Reichs.

ATTENDENCE:

Class attendance is required. **Two (2) or more unexcused absences** will result in a **reduction by one letter grade**, and any student who accumulates **four (4) unexcused absences** will be assigned a failing grade for the course.

Academic Dishonesty

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult with the course instructor.

Special Needs

STUDENTS WITH DISABILITIES ARE RESPONSIBLE FOR MAKING THEIR NEEDS KNOWN TO THE INSTRUCTOR, AND ARE RESPONSIBLE FOR SEEKING AVAILABLE ASSISTANCE, AS SOON AS POSSIBLE, AND CERTAINLY PRIOR TO THE FIRST EXAMINATION

A survey of the fundamentals of drug action with special emphasis on drugs of abuse; discussion of medical, social, legal, and educational aspects of drug use.

Objectives:

- To provide information on the medical, legal, and social aspects of drug use.
- To provide concepts of how drugs produce desirable and undesirable effects.
- To provide information on the non-medical uses and effects of drugs
- To provide an introduction to the neurobiology of addiction
- To provide facts on legal regulations of drugs of abuse.

Instructor: Dr. Lane J. Wallace, Rm 532 Lloyd M. Parks Hall

- Phone: 292-9917
- Email: wallace.8@osu.edu [please put "PH200" in the subject line of all email]
- Office hours: after classes or by appointment

SPECIFIC PERFORMANCE OBJECTIVES

At the conclusion of this course, the student is expected to be able to:

- Define common terms used to describe the action of drugs.
- Describe how a drug might interact with a cell or group of cells to produce an effect.
- Identify the basic factors that can modify the effects of drugs.
- Know the names of the major components of the brain that are important in mediating the behavioral effects of drugs.
- For each drug studied, be able to:
 - Describe the most important effects of a single low dose
 - Describe the most important effects of a single high dose
 - Know the cause of death of a lethal dose
 - Describe the most important effects of chronic use of the drug
 - Tell the major use of the drug in regular medical practice
 - Tell whether chemical dependence or tolerance occurs
 - List what drugs have similar effects
 - Identify a neurotransmitter involved in the drug effect
 - Tell whether the drug is a natural product or laboratory synthesized
 - Know important facts about the history of the drug
- Describe the schedules for controlled substances and know the schedule in which the commonly used drugs are categorized.

TEXT

No text is required.

Lecture notes and problem sets can be downloaded from the course web page:
<http://www.pharmacy.ohio-state.edu/programs/pcol/courses/ph200/index.html>

ACTIVITIES CONTRIBUTING TO GRADES

Problem sets

Five problem sets, each with 10 questions will be required. Problem sets may be turned in by email. If turned in late, a 5-point penalty is assessed. The objective of these is to help learn the material. The instructor will be willing to help explain the questions and to check answers before but not on the due date. The problem sets are due April 8, April 22, May 6, May 20, and June 3.

Article summaries

Five article summaries, each worth 10 points, are required. The report should contain the bibliographic data for the article (author, title, source) and a one paragraph summary of the article contents. The article must come from a good quality publication but need not be from a technical or pharmaceutical journal. The article reviewed must be at least 4 pages in length. Two or more shorter articles may be reviewed to accomplish the 4 pages. The summaries must be neat and legible but need not be typed. Grammar and spelling will be checked as well as intellectual quality of the summary. If turned in late, a 5-point penalty will be assessed.

<u>Due date</u>	<u>Topic</u>
April 1	Commentary on an advertisement (from TV, radio, or magazines)
April 15	Opiate drug
April 29	Stimulant drug or nicotine or caffeine
May 13	Hallucinogen, anabolic steroid, or alcohol
May 27	Cannabis, laws, social norms, or testing for use of drugs

Examinations

The two midterm examinations will each be worth 90 points, and the final will be worth 120 points. The first midterm will be on April 18, and the second on May 11. The final will be on Wednesday, June 8, from 3:30 pm to 5:18 pm. The final will be comprehensive.

Grading scale

370-400	A
360-369	A-
350-359	B+
330-349	B
320-329	B-
310-319	C+
290-309	C
280-289	C-
270-279	D+
240-269	D
000-249	E

Disabilities

Any student who feels the need for an accommodation based on the impact of a disability should contact the course instructor privately to discuss specific needs and contact the Office of Disability Services, Room 150 Pomerene Hall, 1760 Neil Avenue (292-3307) to coordinate reasonable accommodations for a documented disability.

LECTURE SCHEDULE

March 28	Introduction; Definitions
March 30	Principles of Drug Action
April 1	Principles of Drug Action
April 4	Neurotransmission
April 6	Neurotransmission and Drug Action
April 8	Neuroanatomy
April 11	Opiates
April 13	Opiates
April 15	Opiate dependence treatment strategies / review
April 18	Midterm
April 20	Cocaine
April 22	Cocaine
April 25	Amphetamines
April 27	Ecstasy and Ritalin
April 29	Neurobiology of drug craving and dependence
May 2	Hallucinogens
May 4	Nicotine / cigarette smoking
May 6	Caffeine / inhalants
May 9	Anabolic steroids
May 11	Midterm
May 13	Barbiturates
May 16	GHB
May 18	Alcohol
May 20	Alcohol
May 23	Cannabis
May 25	Laws regulating drug use
May 27	Laws regulating drug use
May 30	No class = Memorial Day Holiday
June 1	Drug Testing and Associated Issues
June 3	Drug Testing and Associated Issues
June 8	Final Examination; 3:30 pm - 5:18 pm

Psychology and the Law

Psych 485: Summer Quarter, 2003

Tuesday and Thursday 12:30-3:48 (2nd term)

Professor: Dr. Lance Garmon

Summer Office: 216 Townshend Hall

Main Office: 2047 Founders Hall, Newark Campus

email: Garmon.2@osu.edu

Phone: (740) 366-9483

**Office Hours: Thursday 11:00-12:00 or
by appointment**

Required text:

Wrightsmann, L. S., Greene, E., Nietzel, M. T., & Fortune, W. H. (2002). Psychology and the Legal System. 5th Ed., Wadsworth Group: Belmont, CA.

Course Description: This course will be organized around two distinct but related aspects of “Forensic” Psychology: the psychology of law and psychology in law. While the psychology of law concept focuses on the contribution of psychological concepts, methods, and research on the development of theories related to the law and legal procedures in general, the psychology in law concept focuses on the ever-increasing use of psychology and psychological experts in the legal system. Specific topics will examine the often-conflicting viewpoints and goals of the psychologist and the lawyer and an introduction to various career opportunities in “forensic” psychology.

Final Grades for the course will be based on the following criteria:

1 Midterm Exam	75 points each	75 points total
2 Thought Papers*	25 points each	50 points total
1 Final Exam	75 points	75 points total
Total: 200 points		

Student with at least 90% of the total points will receive at least an A-, 80% at least a B-, 70% at least a C-, and 60% at least a D.
* Additional handouts and class time will be devoted to discussing the thought paper requirement.

Graduating Seniors: Students planning on graduating during the current quarter need to discuss the process with the instructor during the first or second week of the course.

Course Format: Classes will adopt a basic lecture/seminar format with numerous opportunities for discussion and participation by all class members. A schedule of course readings is provided, but lecture schedules will vary depending upon class interest and discussion (exam schedules will not change).

Exam Format: All exams will include a combination of question types (multiple choice, matching, short answer). The exam questions will be based on reading assignments from your textbook, class lectures, class demonstrations/discussions, and class videotape/film presentations. The final exam will not be comprehensive.

Make-up Exams will be granted with an acceptable excuse but all make-up exams will occur at a time convenient for both the student and the instructor. No early exams will be given.

Miscellaneous Rules:

- 1) Students are responsible for getting class notes if they are late or absent from class.
- 2) If a class meeting is canceled, students are responsible for material we would have covered that day.
- 3) You must get permission to bring any guests into the classroom (friends or relatives).
- 4) All assignments must be turned-in to your professor, not placed in a mailbox, to insure full credit.

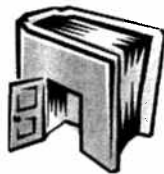
Students with disabilities are responsible for making their needs known to the instructor and seeking available assistance in a timely manner.

“Class Schedule”

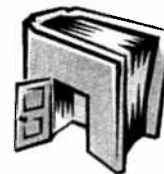
Class Meeting

CHAPTER TOPIC

7/29	Syllabus/ Psychology and the Law: Impossible Choices- Ch 1/ Psychologists and the Legal System - Ch 2
7/31	Legality, Morality, and Justice- Ch 3/ Legal System and Its Players - Ch 4
8/5	Theories of Crime - Ch 5/ The Police and the Criminal Justice System - Ch 6
8/7	Crime Investigation: Eyewitnesses - Ch 7/ Identification & Evaluation of Criminal Suspects - Ch 8
8/12	Midterm Exam / Thought Paper 1 Due/ The Rights of Victims and the Rights of the Accused- Ch 9
8/14	Between Arrest and Trial - Ch 10/ Forensic Assessment in Criminal Cases: Competence and Insanity- Ch 11
8/19	Forensic Assessment in Civil Cases - Ch 12/ The Trial Process - Ch 13
8/21	Jury Trials: I. Jury Representativeness and Selection - Ch 14/ Jury Trials: II. Concerns and Reforms - Ch 15
8/26	Thought Paper 2 Due Psychology of Victims - Ch 16/ Punishment and Sentencing - Ch 17



FINAL EXAM
Friday, August 29th
1:30-3:18



THE OHIO STATE UNIVERSITY

Sociology 209
Introduction to Criminal Justice
Spring 2005

Dr. Debbie Wilson
Office: 363C Journalism Bldg
Phone: 292-1386 (office)
292-6681 (messages only)
Hrs: 4:30-5:30 Mon. - Thurs.
E-mail: Wilson.1028@osu.edu

The purpose of this course is to introduce students to the agencies responsible for detecting, prosecuting, and adjudicating criminal offenders. The first portion of the course will examine the historical development of the criminal justice system along with the origin and types of law. The primary methods used to measure crime, the frequency of crime, and problems with crime measurement will be discussed. The elements of a crime, causation, and criminal defenses will be presented.

The second portion of the course will address the roles and functions of the police. We will focus specifically on the U.S. Constitution and basic constitutional rights provided citizens in the Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments. Primary principles governing police search and seizure and interrogation tactics will be discussed. Various types of police operations including community policing and problem oriented policing will be presented.

The final portion of the course focuses on the courtroom workgroup, criminal trials and sentencing procedures. The working relationship between judges, prosecutors, and defense attorneys will be examined. We will study the formal stages of the criminal justice system beginning with arrest and proceeding through the sentencing stage. Legal and extra-legal factors influencing the proceedings at each stage will be discussed along with current problems plaguing the legal system. Numerous sentencing strategies will be examined along with their impact on our correctional system. Lastly, various types of jails and prisons will be examined in conjunction with trends in imprisonment.

REQUIRED TEXTS

CRIMINAL JUSTICE, 1st Edition, James Fagin

COURSE REQUIREMENTS

There are a total of 340 points to be earned in this course. Final course grades are based on three separate components. These components include: (1) midterm; (2) final exam; and (3) quizzes.

COURSE REQUIREMENTS - cont'd

Each of the two examinations is worth 120 points. Students are responsible for all assigned reading, material covered in class, and information presented by speakers and videos. The examinations will consist of multiple choice questions. The first examination will be given on April 28th during regular class hours. The second examination is scheduled for June 7th. The second examination will not be comprehensive; it only covers lectures and material assigned after the first examination. The format will be similar to the first exam.

There will be five quizzes worth 25 points each. Quizzes will be short answer and fill in; they will cover previous class discussions **and** the assigned reading for that class. Quizzes are not scheduled in advance, but rather will be announced in class the meeting prior to the quiz. The lowest quiz scores for each student will be dropped - leaving 4 quiz scores worth a total of 100 points. **THERE WILL BE NO MAKE-UP QUIZZES UNDER ANY CIRCUMSTANCES.** The rationale for this policy is to recognize that students will have legitimate reasons for missing class. Dropping the lowest quiz score ensures that students will not be penalized for legitimately missing class on a scheduled quiz day.

MAKE-UP EXAMINATION POLICY

Make-up examinations will be given to students who have a **valid medical excuse** for missing the scheduled examination. Students must provide a written excuse from a doctor/emergency room. The make-up **MUST** be taken within one week after the scheduled examination. The make-up will be essay in format.

CLASS ATTENDANCE AND PARTICIPATION

Class attendance is highly encouraged and will be taken at the beginning of each class. I expect students to read the assigned material **prior to class** and come prepared to discuss it. Typically students who do not attend regularly do not perform well in the course. Also, note that important dates are subject to change - as announced in class. **YOU ARE RESPONSIBLE FOR ANY ANNOUNCEMENTS MADE IN CLASS.** A change of date is not a sufficient excuse to make up an exam.

IMPORTANT DATES

April 28th
June 7th

FIRST EXAMINATION
SECOND EXAMINATION

READING SCHEDULE

The following is intended as a suggested reading schedule for student preparation for class. Additional readings may be assigned by the instructor in class and slight modifications to the assigned readings may be made from time to time. The required readings should be completed for each topic before the scheduled class.

<u>DATE</u>	<u>TOPIC</u>	<u>ASSIGNMENT</u>
March 29 th	INTRODUCTION TO COURSE	None
March 31 st	CRIMINAL JUSTICE [CH. 1]	pp. 4-31
April 5 th	OVERVIEW OF CJ PROCESS [CH. 2]	pp. 34-67
April 7 th	CRIMINAL LAW [CH. 4]	pp. 106-139
April 12 th	CRIMINAL LAW [CH. 4], continued	pp. 106-139
April 14 th	VIDEO + CLASS DISCUSSION	
April 19 th	DUE PROCESS & POLICE PROCEDURE [CH. 5]	pp. 142-173
April 21 st	DUE PROCESS [CH. 5], continued	pp. 142-173
April 26 th	CATCH UP AND REVIEW FOR MIDTERM	
April 28 th	MIDTERM	
May 3 rd	RETURN EXAMS + DUE PROCESS [CH. 5]	pp. 142-173
May 5 th	DUE PROCESS [CH. 5], continued	pp. 142-173
May 10 th	POLICE PROFESSIONALISM [CH. 8]	pp. 228-261

<u>DATE</u>	<u>TOPIC</u>	<u>ASSIGNMENT</u>
May 12 th	COURTROOM PARTICIPANTS AND TRIAL [CH. 10]	pp. 298-331
May 17 th	COURTROOM PARTICIPANTS AND TRIAL [CH. 10]	pp. 298-331
May 19 th	VIDEO + CLASS DISCUSSION	
May 24 th	SENTENCING AND SANCTIONS [CH. 11]	pp. 334-365
May 26 th	JAILS AND PRISONS [CH. 12]	pp. 370-401
May 31 st	JAILS AND PRISONS [CH. 12], continued	pp. 370-401
June 2 nd	CATCH UP AND REVIEW FOR FINAL	
June 7 th	<u>2ND EXAM</u> [Tuesday - 11:30 - 1:18 pm]	

STUDENTS WITH DISABILITIES:

THIS MATERIAL IS AVAILABLE IN ALTERNATIVE FORMATS UPON REQUEST. PLEASE CONTACT AN ADVISOR IN UNDERGRADUATE SERVICES 292-1175. STUDENTS WITH DISABILITIES ARE RESPONSIBLE FOR MAKING THEIR NEEDS KNOWN AND SEEKING AVAILABLE ASSISTANCE IN A TIMELY MANNER.

Anthropology 603.01
Osteology
Office Hours: Tuesday & Thursday 1-3pm

Autumn 2005
Dr. Paul Sciulli
Room 219 Lord Hall

Required Texts

1. White, T.D. (2000) Human Osteology, 2nd edition. Academic Press
2. Bass, W.M. (1995) Human Osteology, 4th edition. Missouri Archaeology Society.
3. Laboratory Book. CopEz
4. Scheuer, L. and S. Black (2004). The Juvenile Skeleton. Elsevier. (recommended).

Course Requirements

Midterm Exam	100 points
Final Exam	200 points
Lab Assignments	<u>100 points</u>
	400 points

Exams will consist of multiple choice, short answer, essay questions and identification.

Grading

93+%	A
90-92.9%	A-
87-89.9%	B+
84-86.9%	B
80-83.9%	B-
etc.	

Objectives

This course will enable you to identify human skeletal material. With this basis you will be introduced to methods of aging, sexing, stature determination, and estimation of ancestry.

STUDENTS WITH DISABILITIES ARE RESPONSIBLE FOR MAKING THEIR NEEDS KNOWN TO THE INSTRUCTOR AS SOON AS THE QUARTER BEGINS, AND ARE RESPONSIBLE FOR SEEKING AVAILABLE ASSISTANCE FROM THE OFFICE OF DISABILITY SERVICES 292-3307, PRIOR TO OR AT THE BEGINNING OF THE QUARTER. I RELY ON THE OFFICE FOR DISABILITY SERVICES FOR ASSISTANCE IN VERIFYING THE NEED FOR ACCOMMODATIONS AND DEVELOPING ACCOMMODATION STRATEGIES.

Academic Misconduct:

All students should become familiar with the rule governing academic misconduct, especially as they pertain to plagiarism and cheating. Plagiarism is the inappropriate use of other people's work, which can often be addressed by correct citation and quotations. Ignorance of the rules governing academic misconduct or ignorance of what constitutes academic misconduct is not an acceptable defense. Alleged cases of academic misconduct will automatically be reported to the Committee on Academic Misconduct.

READINGS:

White, T.D. (2000) HUMAN OSTEOLOGY. Academic Press, N.Y.

Bass, WM. (1995) HUMAN OSTEOLOGY. Missouri Archaeological Society.

SUGGESTED:

1. Hauser, G. and Destefano, G.F. (1989) Epigenetic Variants of the Human Skull. E. Scheizerbart'Sche Verlaga Buchanlong, Stuttgart.
2. Buikstra, J.E. (1977) Biocultural dimensions of archaeological study: A regional perspective. In: Blakely, R.L. (ed) Biocultural Adaptation in Prehistoric America. The University of Georgia Press, Athens pp.67-84.
3. Currey, J. (1984) The Mechanical Adaptation of Bone. Princeton University Press, Princeton.
4. Shipman, P., Walker, A., and Bichell, D. (1985) The Human Skeleton. Harvard University Press, Cambridge.
5. Scheuer, L. and Block, S. (2004) The Juvenile Skeleton. Elsevier.

Course Outline

WEEK	TOPIC	ASSIGNMENT	READING*	Suggested Reading
1	A	Introduction, Bioarchaeology and microevolution	-	B, App 1 (p.319-328); W, CH 1 (p1-15), Buikstra (1977)
	B	Bone Biology	-	W, Ch 2 (p.16-34) Ch 3 (p.35-52)
	C	Craniofacial Anatomy	-	Currey (1984)
2	A	Craniofacial Anatomy	-	W CH 4 (p.53-109), B Ch 2 (p.37-98)
	B	Craniofacial Discrete Traits and Metrics	Locate and sketch landmarks and discrete traits for craniofacial data	Shipman et al (1985) Chs 13 & 14
	C	LAB 1	Collect discrete trait data and metrics from crania	Hauser and Destefano (1989)
3	A	Vertebrae, Ribs, Sternum Anatomy, Metrics, discrete Traits	Locate and sketch landmarks and traits for vertebrae, ribs, sternum	B Ch3 (p99-115, 138-198, 116-119), W CHs 6 & 7(p.137-166), Ch 11 (p.217-221)
	B	LAB 2	Collect Metrics and Discrete Traits from Vertebrae, Ribs, and Sternum	B Ch 3, W Ch 6 & 7
	C	Clavicle, Scapula, Humerus Anatomy, Metrics, Discrete Traits	Locate and sketch landmarks and discrete traits for clavicle, scapula, humerus	Shipman et al (1985) Ch 7 & 8
4	A	LAB 3	Collect metrics and discrete traits from clavicle, scapula, humerus	Shipman et al (1985) Ch 9 (p.101-107)
	B	Radius, Ulna, Hand Anatomy, Metrics, Discrete Traits	Locate and sketch landmarks and discrete traits for radius, ulna, hand	B (p.120-136, 149-163), W Ch 8 & 9 (p.179-187)
	C	Lab 4	Collect metrics and discrete traits from radius, ulna and hand	Shipman et al (1985) Ch 9 (p.108-117) Ch. 10
5	A	***MIDTERM EXAM*** (Weds Oct 26)		
B	Pelvis, Femur, Patella Anatomy, Metrics, Discrete Traits	Locate and sketch landmarks and discrete traits for pelvis, femur, patella	B (194- 239), W Ch 12 (p.222-242)	Shipman et al (1985) Ch 11 (p.139-149)
6	A	Lab 5	Collect metrics and discrete traits from pelvis, femur, patella	Shipman et al (1985) Ch 11 (p.139-149)
	B	Tibia, Fibula, Foot Anatomy, Metrics, Discrete Traits	Locate and sketch landmarks and discrete traits for tibia, fibula and foot.	Shipman et al (1985) Ch 11 (p.149-163) Ch 12
	C	LAB 6	Collect metrics and discrete traits of tibia, fibula, and	Shipman et al (1985) Ch 11

7	A	Review Hand and Foot	foot	(p. 240-271)	(p.149-163), Ch 12
	B	Age Estimation		W Chs 10 & 13, B (177-193 and 259-271) W CH17 (p337-342, 345-362), B (p.12-25)	Shipman et al (1985) Ch 9 (111-117), Ch 10, Ch 11 (p.153-163) Shipman et al (1985) (p.249-255, 263-270); Scheuer and Black (2004)
8	A	Age Estimation	Locate and sketch areas of pelvis (pubis, auricular surface) for age estimating, review age estimation of subadult from long bone length and fusion	W CH17 (p337-342, 345-362), B (p.12-25, 200-208)	Shipman et al (1985) (p.249-255, 263-270) ; Scheuer and Black (2004)
	B	Lab 7	Estimate age of 5 pelvis and 1 infant (subadult)	W CH17 (p337-342, 345-362), B (p.12-25, 200-208)	Shipman et al (1985) (p.249-255, 263-270) ; Scheuer and Black (2004)
9	A	Sex estimation		W Ch 17(p.362-369), B (p.25-26, 208-218)	Shipman et al (1985) (p.270-277)

Course Outline, Cont'd

WEEK	TOPIC	ASSIGNMENT	READING*	Suggested Reading
B	Ancestry and Stature Estimation	Locate and sketch landmarks for estimating sex, ancestry and stature	W Ch17 (p. 369-378), B (p.26-35, 86-97)	Shipman et al (1985) (p.277-284)
C	Lab 8	Estimate sex from 5 pelvis, 5 skulls. Estimate ancestry from 3 skulls, estimate stature of plastic skeleton (Fully) and from femur, tibia, and humerus	White and Bass on Sex, Ancestry, and Stature Estimation	Shipman et al (1985) (p.270-284)
10	A	Biological Distance	Estimate biological distance among the samples	Lab Book p.20
	B	Lab 9	Estimate biological distance among the samples	Lab book p.23

****FINAL EXAM****

(Mon, Dec 5th)

*B= Bass W=White

Anthropology 603.02 SKELETAL BIOLOGY

Instructor: Sam D. Stout
Department: Anthropology
217A Lord Hall
stout.126@osu.edu

Required Text: Agarwal and Stout (eds.) 2003 Bone Loss and Osteoporosis: An Anthropological Perspective, Kluwer Academic/Plenum Publishers.

This course is a survey of bone biology, including the histogenesis, histomorphology, and physiology of bone. The assigned textbook is very comprehensive and most of the reading assignment will be from it with discussion, clarification, and elaboration during class. Additional readings that elaborate upon or supplement the text will also be assigned.

Skeletal biology in general will be addressed using the subject of age associated bone loss as a central organizing theme. The following is a list of the major topics that will be covered in the course. The exact time that each topic will be covered is not stipulated in order to allow the class to proceed at a pace dictated by the backgrounds of students in the class and their interests.

GENERAL DESCRIPTION OF TOPICS TO BE COVERED:

I. We will first review the following basic aspects of the structure and biology of bone:

The "new bone biology," bone as a mechanical and metabolic organ

Levels of analysis:

Whole bone-organ (osteology)

Tissue (histology)

Cellular

Ultra structural

Bone as a connective tissue

Bone growth and development:

Embryology

Histogenesis: endochondral and intramembranous ossification

Growth plates and endochondral growth

When bones fail-fracture repair.

II. We will then undertake in-depth discussions of the material presented in the assigned text centering on the following general themes. For this part of the course, small discussion groups will be formed and assigned specific reading assignments in the text. Each discussion group will present the material presented in the assigned reading (including its importance for biological anthropology as well as skeletal biology) and lead class discussion. Although time will be allotted for discussion groups to meet during class to prepare their presentations, then may and are encouraged to meet outside of class as well. Each member of the group must contribute substantially to the presentation and discussion, and is required to submit **their own** written synopsis of the material presented to the class, along with highlights of the discussion.

A. Bone physiology:

New concepts of bone remodeling-read Ch.1 by A.M. Parfitt

Old and new paradigms explaining how bones work-read Ch. 2 by H.M. Frost

The role of bone quality in skeletal health-read Ch. 3 by M.D. Grynpas

Subadult bone-read Ch.6 by Streeter and Stout

B. Population variation:

Ethnic differences in bone mass and architecture-read Ch. 4 by Nelson & Villa

Sex differences in bone loss and fracture risk-read Ch. 5 by W.A. Stini

C. Bone biology in an evolutionary perspective:

Reproduction and bone health-read Ch. 7 by Agarwal and P. Stuart-Macadam

Functional adaptation to mechanical loading-read Ch. 8 by R.B. Martin

Natural selection and vitamin D nutrition-read Ch. 9 by R. Vieth

D. What do we and can we know about the bone biology of past populations?

Methods used to study archaeological bone-read Ch. 10 by Brickley & Agarwal

Differentiating "intravital" from postmortem changes in bone-read Ch. 11 by M. Schultz

Using bone histomorphometry and geometry to interpret mechanical loading in past populations-read Ch. 12 by Robling and Stout

Bone remodeling and bone loss in ancient populations-read Ch. 13 by Cho & Stout

STUDENT EVALUATION AND GRADES: [Percentages represent relative importance rather than specific numbers of points.]

Exam [~40%]: There will be one exam ("midterm") over the basic aspects of bone biology. The exam will be scheduled as best suits the pace of the class.

Discussion group participation and performance (see II above)[~20%]

Research Paper [~40%]: Students will be required to submit a paper \approx 10 pages in length on some aspect of skeletal biology in anthropology; e.g., applications in bioarchaeology, paleopathology, paleontology/human evolution, primate biology/evolution, and medical anthropology; or other topics relevant to the course or particular interests. **Students must have their paper topics approved by the instructor before the end of the fourth week of classes (Oct.13) at which time, a short "thesis statement" is to be submitted to the instructor.**

Oral Presentation [~15%]: Each student must prepare and deliver an oral presentation approximately and no more than 15 minutes in length. **Presentations will be given during the last three weeks of the course (Nov. 15-Dec.1).**

Class Participation [~5%]: Active participation of students during class discussions is an important aspect of this course. The quality of each student's participation during class discussions, therefore, will be part of the evaluation of their work to arrive at a final grade for the course.

ATTENDANCE:

Given the importance of in-class discussion, class attendance is very important. Therefore, two (2) unexcused absences will result in a reduction by one letter grade, and any student who accumulates four (4) unexcused absences will be assigned a failing grade for the course.

Course Prerequisites: Written permission of the Instructor. Introduction to Biological Anthropology (or equivalent), and some background in osteology, forensic anthropology, or anatomy is highly recommended.

Academic Dishonesty

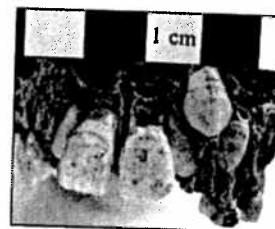
Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult with the course instructor.

Special Needs

STUDENTS WITH DISABILITIES ARE RESPONSIBLE FOR MAKING THEIR NEEDS KNOWN TO THE INSTRUCTOR, AND ARE RESPONSIBLE FOR SEEKING AVAILABLE ASSISTANCE, AS SOON AS POSSIBLE, AND CERTAINLY PRIOR TO THE FIRST EXAMINATION.

**EVOLUTIONARY ANTHROPOLOGY
OF THE DENTITION**

5 credits
Autumn, 2004
MW 1-3:18 PM



Instructor: Dr. Guatelli-Steinberg

- e-mail: guatelli-steinbe.1@osu.edu; phone: 614-292-6897
- office hours: 217 B Lord Hall: MW 3:30-5:00 PM

Course Overview:

This is an advanced course focusing on the evolutionary anthropology of non-human primate and human dentition. The course employs a comparative approach to studying anthropologically significant aspects of the dentition, incorporating research from extant and extinct species of non-human primates and hominins. Topics selected for study represent areas of current research that address important questions in the study of human biological variation, human origins, and primate behavior and ecology. These topics include (but are not limited to): the evolution, genetics, and ontogeny of the dentition; functional aspects of tooth size and morphology; sexual dimorphism in tooth size and shape; dental asymmetry; dental morphology and the study of population affinities; dental development and life history theory; dental pathology/occlusal variation/chemical analysis and subsistence patterns; and enamel hypoplasias and histological markers of physiological stress.

Course Objectives:

As an outcome of this course, students should gain a strong foundation in the central fields of current dental anthropological research. Through lab work, they should gain familiarity with the basic methodology of dental anthropologists, including methods of tooth measurement, morphology scoring, and microscopic analysis. Through their paper assignments, students should hone their abilities to analyze and critique studies in the context of larger research issues. Finally, students should be able to apply methods and/or approaches from the field of dental anthropology to their own research specializations.

Required reading:

Text: Available at the bookstore:

Hillson S. 1996. Dental anthropology. Cambridge: Cambridge University Press.

Course Packet: Anthropology 603.03: Readings

Evaluation:

Participation: 40 points

Paper Critiques: 3 papers, each worth 40 points = 120 points

Lab Assignments: 4 assignments, each worth 20 points = 80 points

Tooth Identification quiz: 40 Points

Final Exam: 120 points

Total points: 400

Policies:

- *Attendance* is mandatory and is part of your participation score. To get the maximum points for *Participation* you must not only come to class but also be an active participant.
- As a courtesy to the instructor and fellow students, please be on time to lecture.
- *Labs*: There are no make-up labs. Be sure to attend them!
- *Grading*: There is no extra credit and grades are based on a standardized scale (93-100% = A; 90-92% = A-, 87-89% = B+, 83-86% = B, 80-82%=B-, etc.)
- *Late Assignments*: Assignments lose 10% of the point total for each day late.
- *Academic Misconduct*: The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. **Anyone caught cheating will be reported to the Board of Academic Misconduct.** When in doubt, consult with the course instructor. *Ignorance of the rules governing academic misconduct or ignorance of what constitutes academic misconduct is not an acceptable defense.*
- **STUDENTS WITH DISABILITIES ARE RESPONSIBLE FOR MAKING THEIR NEEDS KNOWN TO THE INSTRUCTOR AS SOON AS THE QUARTER BEGINS AND FOR SEEKING AVAILABLE ASSISTANCE FROM THE OFFICE OF DISABILITY SERVICES 292-3307, PRIOR TO OR AT THE BEGINNING OF THE QUARTER. I RELY ON THE OFFICE FOR DISABILITY SERVICES FOR ASSISTANCE IN VERIFYING THE NEED FOR ACCOMMODATIONS AND DEVELOPING ACCOMMODATION STRATEGIES.**

Paper Instructions:

- There are 3 papers due throughout the term and each should be a **minimum of 3, maximum of 5** pages. Please type, 12 point, double spaced, 1 inch margins. References must follow AJPA format.
- 5 % of the total points of the paper will be **subtracted** for writing less than the page minimum or more than the page maximum.
- You must choose an article from the list distributed in class each session that papers are assigned (they are assigned two weeks in advance of the due date). No more than two students may choose the same article for each assignment. (Articles can be obtained from the library or in some cases through Oscar on line journals.)
- In your paper, you must summarize the article you have read, critique the article, and relate it to broader research issues discussed in the required reading as well as in class. In other words, you are evaluated on how well you explain the research, how insightfully you critique the research, and how well you can integrate the article you have read into the larger research question(s) or issue(s) to which it relates.

Week	Schedule of Events	Assignments Due	Required Reading
9/22	• <u>Lecture</u> : Scope of dental anthropology, dental anatomy, terminology		•Hillson (1998) Chs: 1, 2 •Ten Cate (1994) Ch: 1, 2
9/27	• <u>Lab 1, Part I</u> : Identifying permanent incisors and canines		•Ten Cate (1994) Ch: 3, 4 •Smith and Coates (2002) •Zhao and Weiss (2002)
9/29	• <u>Lecture</u> : Evolution and development of teeth and dental tissues		
10/4	• <u>Lab 1, Part II</u> : Identifying permanent premolars and molars		•Hillson (1998) pp. 68-85 •Kieser (1990) Chs 1, 2, 3, 5,
10/6	• <u>Lab 1, Part III</u> : Identifying deciduous teeth		
10/11	• <u>Quiz</u> : Tooth Identification quiz; • <u>Lecture</u> : Odontometry I: Techniques, trends, variability; <i>first paper assigned</i>	Lab 1 due Oct 11	•Kieser (1990) Chs 6, 7, 9, 10
10/13	• <u>Lecture</u> : Odontometry II: Allometry, Asymmetry, Sexual dimorphism		
10/18	• <u>Lab 2</u> : Odontometry	Lab 2 due Oct 20	•Hillson (1998) pp. 85-105 •Aiello and Dean (1990) Ch 8 •Butler (2002)
10/20	• <u>Lecture</u> : Dental Morphology I: Variation and functional morphology		
10/25	• <u>Discussion</u> : Paper 1; <i>second paper assigned</i>	Paper 1 due Oct 25	•Rose and Ungar (1998), pages 349-363 •Hillson (1998) pages 231-242 •Irish and Guatelli-Steinberg (2003)
10/27	• <u>Lecture</u> : Dental Morphology II: scoring dental morphology, population affinity studies; Macrowear		
11/1	• <u>Lab 3</u> : Dental morphology	Lab 3 due Nov 3	•Aiello and Dean (2002) Ch 7 •Hillson (1998) pages 148-164 <i>and</i> pages 178-181
11/3	• <u>Lecture</u> : Dental development and life history		
11/8	• <u>Discussion</u> : Paper 2; <i>third paper assigned</i>	Paper 2 due Nov 8	•Hillson (1998) pages 165-177 •Guatelli-Steinberg (2001) •Hillson (1998) Chapter 12
11/10	• <u>Lecture</u> : Dental pathology, enamel hypoplasia, and accentuated striae		
11/15	• <u>Lab 4</u> : Dental histology and enamel surfaces	Lab 4 due Nov 17	•Hillson Chs 5 and 9
11/17	• <u>Lecture</u> : Aging techniques		
11/22	• <u>Lecture</u> : Microwear and chemical analysis	Paper 3 due Nov 24	•Hillson (1998) pages 243-253 •Rose and Ungar (1998), pages 363-378) •Hillson, Chapter 10 •Grupe (1998)
11/24	• <u>Discussion</u> : Paper 3		
11/29	• <u>Lecture</u> : Occlusal Variation; <i>final assigned</i>	FINAL DUE: FINALS WEEK	•Hillson, Chapter 4; 13
12/1	• <u>Discussion</u> : Future Research Prospects		

FORENSIC ANTHROPOLOGY

(ANTH. 640.04, SP05)

Instructor: Sam D. Stout
mail: stout.126@osu.edu
Office: 217A Lord Hall

Office Hours: Tues. and E-
Thurs., 4:30-6:30 (or by
appointment)

COURSE DESCRIPTION

Forensic Anthropology is an applied area of physical anthropology. It employs methods developed in osteology, skeletal biology, bioarchaeology, and paleopathology to the recovery and identification of human remains in a medico-legal context. Forensic anthropologists are usually called upon when human or suspected human remains are skeletonized or are too fragmented or decomposed to identify through a normal autopsy. This course assumes students already have a basic background in human osteology and/or bioarchaeology, and will focus on the application of methods currently used to assist in the identification of human remains. The pedagogical approach employed in this course will be "problem based." Therefore, the majority of class time will be allotted to open laboratory for osteological analyses, and specific topics and questions will be addressed as they arise during the course of the analyses. For this approach, it is essential that there be free and open exchange of ideas, questions, and knowledge among students.

TEXTS: **The Anatomy and Biology of the Human Skeleton**, Gentry Steele and Claud A. Bramblett. 1988 (or an equivalent text), and **Standards for Data Collection from Human Skeletal Remains**, J. E. Buikstra and D.H. Ubelaker, Eds. 1994.

Student Responsibilities:

1. Each student will be assigned one or more set of skeletal remains for osteological/forensic analysis.
2. Each student will be responsible for a final written report detailing their methods of analysis and findings for the skeletal remains assigned to them.
3. Each student will play the role of expert witness and present and defend their methods and findings to the class. Final written reports are due at the class following this oral report in order to take advantage of any comments or suggestions arising during the oral presentation.
4. Each student will compile an annotated bibliography of reference material relating to original sources describing the standard as well as the latest methods of skeletal analysis applicable to forensic anthropology. At the end of the course, we will combine the results from all student lists into a final bibliography to be shared by members of the class.
5. Students are expected to treat the skeletal remains with care and respect, and put forth their best effort to adequately and accurately describe the demographic characteristics of the skeletal remains.

GRADING:

Each student's grade will be based upon the quality, accuracy, and thoroughness of their written and oral presentations, as well as my evaluation of their class participation.

CHEMISTRY 221

Fall 2005

Syllabus

Texts: Quantitative Chemical Analysis, Daniel C. Harris, 6th Ed. , W.H. Freeman, 2003.
Applications of Microsoft EXCEL in Analytical Chemistry, Stanley R.Crouch, F. James Holler, 2004.

Lecturer: Professor Susan V. Olesik, 3033 D McPherson Lab, olesik.1@osu.edu

Office Hours: 3:00 - 4:00 pm Wed, Friday or by appointment 292-0733

Teaching Assistants: Nathan Gaubert, Bill Hockaday, Kaarina Lokko, Philippe Nadaud,
Miaja Umaedi, Liwen Wang

Laboratory Supervisor: Dr. Ted Clark

Lectures: M/W/F 9:30am 2004 Evans Lab

<u>Dates</u>	<u>Topic</u>	<u>Reading Assignment (Chapter in Harris)</u>
Sept 21,23,26	Measurement/Experimental Errors	1 and 3
Sept 26,28,30	Statistics: including probability distribution, Confidence Intervals, t-test, F-test and Least Squares	4
Oct 3, 5 , 7	Chemical Equilibrium and Activity	6, 8, 9
Oct.10,12,14 Oct 17, 21	Acid/Base Equilibria and	10,11,12
Oct 24, 26, 28 Oct 31	Electrochemistry	14,15
Nov 2,4,7 Nov 9,14	Spectroscopy	19,20,21
Nov 18,21,23 Nov. 28, 30, 2	Separations, Gas and Liquid Chromatography	23,24,25

Midterm Examinations: Oct 19 th, 6:00 pm: Nov 16 6:00 pm

Final Examination: Dec 7, 7:30 am - 9:18 am

Grading:

Lectures 60% (Quizzes 5%, Midterms 20%, 20% and Final 15 %)

Lab 40%

100%

Quizzes: Take home quizzes will be provided in an unannounced fashion throughout the quarter. If you are not in class, you will not get the quiz. This includes any extenuating circumstances. You will allowed to drop one quiz grade. If you have an extenuating circumstance that will be covered by the dropped quiz.

Problem Sets: A problem set will be assigned each Monday. The answers are available in the published answer book. Problem Sets will not be graded.

Exam Grading Policy: If you wish to have an exam question regraded, turn in a written description of your concern no later than one class period after you received the original graded exam. Each exam in question will be regraded entirely.

All submitted work on exams, quizzes and laboratories reports must be **your own**.

Disability Services: All students with documented disabilities, who need accommodations, should see the instructor privately to schedule an appointment as early in the quarter as possible. If your disability requires materials in alternative format, please contact the Office for Disability Services at Room 150 Pomerene Hall (292-3307).

Quantitative Chemical Analysis – Chemistry 221
Autumn Quarter 2005
Laboratory Syllabus

Lecturer: Professor Susan Olesik, olesik@chemistry.ohio-state.edu

Laboratory meets in 2045 McPherson and/or 2040 McPherson

T R 1:30 – 5:18. TAs: Nathan Gaubert (ngaubert@chemistry.ohio-state.edu)

Bill Hockaday (whockada@chemistry.ohio-state.edu)

T R 8:30 – 12:18. TAs: Philippe Nadaud (pnadaud@chemistry.ohio-state.edu)

Maija Umaedi (mharley@chemistry.ohio-state.edu)

M W 1:30 - 5:18. TAs: Liwen Wang (liwang@chemistry.ohio-state.edu)

Kaarina Lokko (klokko@chemistry.ohio-state.edu)

Lab Supervisor: Dr. Ted Clark, clark.789@osu.edu. Office: 2035 McPherson.

Start Date	Laboratory Experiments	Due no later than 4 P.M. to mailslot outside 2035 McPherson.
Sept. 21, 22	1. Calibration of laboratory glassware	Sept. 30
Sept. 28, 29	2. Preparation of standard acid and base	Oct. 14
Oct. 5, 6	3. Identification of a weak acid	Oct. 21
Oct. 12, 13	4. Investigation of properties of a buffer	Oct. 28
Oct. 24, 25	5. Potentiometric determination of iron	Nov. 4
Oct 31, Nov. 1	6. Spectrophotometric determination of iron	Nov. 11
Nov. 7, 8	7. Ion-selective electrode determination of chloride	Nov. 18
Nov. 9, 10	8. Environmental Analysis projects.	Dec. 2 Class summaries on Nov. 28, 29

- All written reports must be typed double-spaced.
- Each experiment (as indicated by an assigned number) is graded on 100 point basis.
- The statistical analysis assignment is also graded on a 100 point basis, DUE OCT 7th.
- Pre-laboratory preparation is worth an additional 100 points (allocated by Dr. Clark).
- Late reports are penalized 5% (5 points) per day, 25 points per week.
- All experiments must be performed.
- All reports, repeats and recalculations are due by 4 pm on Friday December 2nd.

Analytical Chemistry II: Instrumental Analysis
MWF, 12:30 PM, McPherson 1021

Chemistry 587
Spring 2005

R. L. McCreery
3033B McPherson
mccreery.2@osu.edu

TEXTBOOK: Skoog, Holler, Nieman, *Principles of Instrumental Analysis*, 5th Edition, Saunders College Publishing, 1998

Teaching Assistant: Jing Wu (wu.445@osu.edu)

Tentative Schedule:

Week of	Topic	Reading
March 28	SNR, Introduction to Spectroscopy	Chapter 1, 5
April 4	Optical Spectroscopy: Basics and Instrumentation	Chapter 6, 7
April 11	Atomic Spectroscopy	Chapter 8, 9 pp. 230 - 241
April 18	Molecular Absorption Spectroscopy	Chapter 13, 14
April 25	Luminescence, Infrared	Chapter 15, 16
May 2	Infrared, Raman spectroscopy	Chapter 17,18
May 9	Mass Spectrometry	Chapter 20
May 16	Gas Chromatography	Chapter 26, 27
May 23	Liquid Chromatography, Capillary Electrophoresis	Chapter 28, 30
May 30	Nuclear Magnetic Resonance	Chapter 19

NOTES:

1. Holiday: Monday, May 30
2. Midterms: Weeks of April 24 and May 23
Final Exam: Monday, June 6, 11:30 AM - 1:18 PM
3. There will be four or five quizzes on Fridays, but unannounced.

Grading:

Quizzes	10%
Midterms	25% each
Final	40%

Instrumental Analysis

Chemistry 588 Spring Quarter 2005

Instructor: Dr. Susan Olesik

Laboratory Supervisor: Dr. Ted Clark

clark.789@osu.edu

Teaching Assistants:

Jongjin Park

jopark@chemistry.ohio-state.edu

Nathan Gaubert

ngaubert@chemistry.ohio-state.edu

Brian Peebles

bpeebles@chemistry.ohio-state.edu

Hua Xu

hxu@chemistry.ohio-state.edu

Laboratory Times: MW afternoons (1:30-4:18) or TTH afternoons (1:30-4:18)

Laboratory Assignments:

Each student will perform eight experiments during the quarter, one each week during the two, three hour laboratory sessions for which the student is enrolled. These experiments will examine different modern instruments that are commonly used in chemistry, physics, and biological sciences, including gas chromatography (GC), high-performance liquid chromatography (HPLC), gas chromatography coupled with a mass spectrometer (GC/MS), atomic absorption spectroscopy (AA), Raman spectroscopy, infrared spectroscopy, ultra-violet/visible light spectroscopy (uv/vis), cyclic voltammetry (CV), thermal gravimetric analysis (TGA), and differential scanning calorimetry (DSC). Instruments common to the chemistry department, such as NMR spectrometers and x-ray diffractometers, may also be introduced.

No laboratory work may be done outside the student's scheduled laboratory time without permission from the laboratory supervisor. Because of these time restrictions it is important that each experiment be completed on-time and during the week in which it has been scheduled. Other students will be using the equipment during the non-scheduled times. Your assignments for the quarter will be made on the first day of class, and they will be posted in the laboratory.

Special Analytical Project:

Midway through the quarter students will be given information pertaining to a group assignment that is due at the end of the quarter. This collaborative assignment will involve student research into analytical instrumentation and their proposing a solution to a modern analytical chemistry problem. Student groups will present their results to classmates and departmental faculty at the course's conclusion. This effort will count as one experiment.

Grading:

Laboratory	800 points	Part 1, theory – 20 points. Part 2, lab – 80 points
Special Project	100 points	

To receive a pass grade in the course, a completed laboratory report (parts 1 and 2) must be submitted for each scheduled experiment.

Laboratory Reports

Reports are composed of two parts. Part one, Theory, must be submitted before beginning an experiment. **STUDENTS MAY NOT BEGIN AN EXPERIMENT WITHOUT FIRST TURNING IN PART ONE OF THE LAB REPORT.**

Part two, Results and Discussion, is due one week after an experiment is scheduled to be completed. Lab reports are to be written individually, even if the experiment is done with a partner. Overdue reports are penalized at the rate of 5 points a day. Part two reports should be submitted to the mailbox outside room 2035. Please label the reports clearly with your name and the experiment name. All lab reports must be turned in to receive a passing grade in the course. All lab reports remain in the office, but you are encouraged to view them once graded.

Lab Report Format

Reports must be typed. If you wish, you may use the computers in room 2047. Reports should include the following:

Part one. (3 page limit)

Title Page

Experiment name

Author

Date performed

Theory

A brief description of the principles involved in the experiment, with equations, if relevant.

A schematic diagram of the instrument to be used with a description of the individual components and their functions.

Example(s) of the instruments use as discussed in the scientific literature.

A discussion of advantages and disadvantages of the instrument.

References

Part two.

Title Page

Please answer the provided questions for a given experiment. Wherever possible, **SUPPORT** your answers with experimental data that you have collected.

Effectively summarize the results that you are using to support your conclusions.

This may take the form of a table, a figure, or equations. Demonstrate a strong theoretical understanding of the instrument and examine whether your findings support the expected (theoretical) behavior. If there is disagreement, suggest reasons why the experimental and theoretical results diverge. Also, include references wherever appropriate.

The writing in the lab report must reflect your own work. It is important to realize that presenting someone else's work as your own is plagiarism.

CSE 551 (Official)

CSE 551: Introduction to Information Security

Description

Introduction to security of digital information including: threats, regulations, risk management, attack detection and response, cryptography, forensics, and technical training and certification.

Level, Credits, Class Time Distribution, Prerequisites

Level	Credits	Class Time Distribution	Prerequisites
U	3	3 cl	314 or 321 or 502 or AMIS 531 or equivalent, and second writing course; or permission of instructor

Quarters Offered

- Wi

General Information, Exclusions, Cross-listings, etc.

Intended Learning Outcomes

- Master information security governance, and related legal and regulatory issues.
- Master understanding of external and internal information security threats to an organization.
- Be familiar with the structure of policies, standards and guidelines.
- Be familiar with information security awareness and a clear understanding of its importance.
- Be familiar with how threats to an organization are discovered, analyzed, and dealt with.

Texts and Other Course Materials

- *Principles of Information Security*, Thomson/Course Technology, ISBN 0-619-06318-1, 2003 - Michael E. Whitman and Herbert J. Mattord
- *Security Architecture: Design, Deployment and Operations*, McGraw-Hill Osborne Media; ISBN: 0072133856; 1st edition (July 30, 2001) (Optional) - Christopher King, Ertem Osmanoglu, Curtis Dalton

Topics

Number of Hours	Topic
3	Primer: information security and network basics; information security and its role in an organization; legal and regulatory issues; government homeland security initiatives and how they impact business

	and individuals
3	Threats; internal threats: employees, contractors, third parties; external threats: criminals, corporate espionage, hackers, cyber warfare, cyber terrorism; psychology of computer criminals and info-terrorists and associated ethical issues
6	Governance, policies, standards, and guidelines; architecture; awareness
10	Risk management, vulnerability assessment and intrusion detection; malicious code protection; content filtering; internet DMZ and related components; incident response; application security
3	Cryptography; forensics
3	Information security directions; technical training and certifications; what's next
2	Review and exam

Representative Lab Assignments

- None

Grades

Homework assignments	15%
Paper and presentation	15%
Participation	10%
Midterm exam	20%
Final exam	40%

Relationship to ABET Criterion 3

a	b	c	d	e	f	g	h	i	j	k
*	*	*	*	*	**	*	*	*	**	*

Relationship to CSE Program Outcomes/Objectives

1a	1b	1c	2a	2b	2c	3a	3b	4a	4b	5a	5b	5c
*	*	*	*			**	**	*	*	*	*	*

Course Coordinator: Dong Xuan
 Prepared by Bruce Weide
 Last modified: Oct 3 2005 2:41PM

	<u>Date</u>	<u>Lecture</u>	<u>Page</u>	<u>Date</u>	<u>Laboratory</u>	<u>Page</u>	
Sept	21	Characteristics	1	21			
	22			22	Arthropod Anatomy; Collecting & Preserving	1, 3	
	23	Diversity	3	23			
	26	Evolution	9	26			
	27			27	External Morphology I: General; Legs; Antennae	9	
	28	Structure	20	28			
29			Q 29	External Morphology II: Mouthparts; Wings	15		
30	Support Systems	25	30				
Oct	3	Reproductive System	32	3			
	4			4	Internal Morphology	24	
	5	Growth & Molting	37	5			
	6			Q 6	Arthropod Classes & Orders	29	
	7	Metamorphosis	42	7			
	10	Nerve/Endocrine Syst.	46	10			
	11			11	Hexapod Orders: Common Adults	35	
	12	Sensory Reception	51	12			
	13			Q 13	Hexapod Orders: Obscure Adults	35	
	14	Semiochemicals	55	14			
	17	Muscles & Locomotion	57	17			
	18			18	Hexapod Orders: Common Immatures	48	
	19	Elemental Behavior	60	19			
	20			20	IDENTIFICATION EXAM I		
	21	Migration	65	21			
	24	Mating Behavior	68	24	PRELIMINARY COLLECTION DUE 1:30 pm		
	25			25	Odonata, Orthoptera & Blattaria Families		
	26	MIDTERM WRITTEN EXAM			26		55,56
	27			27	Hemiptera Families		58
	28	Presocial Behavior	72	28			
	31	Termite Societies	76	31			
Nov	1			1	Neuroptera & Coleoptera Families	61,62	
	2	Paper Wasp Societies	80	2			
	3			Q 3	Coleoptera Families (cont'd)	62	
	4	Honey Bee Society	83	4			
	7	Ant Societies	88	7			
	8			8	Hymenoptera Families	65	
	9	Plant Feeders	92	9			
	10			Q 10	Hymenoptera Families (cont'd)	65	
	11	(Holiday)		11			
	14	Plant Defense	96	14			
	15			15	Mecoptera & Diptera Families	68	
	16	Plant-Insect Mutualists	99	16			
	17			Q 17	Diptera Families (cont'd)	68	
	18	Insect Enemies	104	18			
	21	Insect Protection	107	21			
22			22	Lepidoptera Families	71		
23	Vertebrate Parasites	110	23				
24			24	(Holiday)			
25	(Holiday)		25				
28	Economic Damage	114	28				
29			29	IDENTIFICATION EXAM II			
30	Insecticides	117	30				
Dec	1			1	Finish Work on Final Collection		
	2	Control Alternatives	119	2	FINAL COLLECTION DUE 1:30 pm		

Dec 7 FINAL WRITTEN EXAM - Wednesday: 11:30 - 1:18

MEDICAL ENTOMOLOGY

Entomology 661

2006 Winter

DATE	Mon Wed Fri: 9:30 - 10:18	Tu Th: 9:30 - 11:18
Jan	2 (Holiday)	3 LAB: Importance & Classification of Arth. Parasites
	4 Parasitism; Morphol. Specializations	5 Physiol. & Behavioral Specializations
	6 Arthropod Pathogenesis & Immunity	
	9 Pathogen Transmission	10 Vectorial Capacity
	11 Reproduction Rate & Critical Density	12 Vector Incrimination; Pathogen Ecology & Systems
	13 Control: Tactics & Strategies	
	16 (Holiday)	17 Spider & Mite Biology, Scrub Typhus; Tick Introd.
	18 Control: Economics & Ethics	19 LAB: Spider & Mite Identification
	20 EXAM I	
	23 Tick Biology	24 LAB: Tick Identification
	25 Spotted Fever, Borreliosis	26 DISC: [Can GIS Predict Lyme Disease?]
	27 Ehrlichiosis, Anaplasmosis	
	Feb	30 Bug, Louse & Flea Biology
1 Chagas Disease, Typhus, Plague		2 DISC: [Are Typhus & Plague 'Dead' Diseases?]
3 LAB: Flea Identification		
6 Mosquito Biology		7 LAB: Mosquito Larva Identification
8 Encephalitis, West Nile Virus		9 DISC: [How Does WNV Spread and Overwinter?]
10 EXAM II		
13 Yellow Fever, Dengue		14 LAB: Mosquito Adult Identification
15 Filariasis		16 DISC: [How Low Are Crit. Densities for Dengue/Malaria?]
17 Malaria		
20 Black Fly, Sand Fly & Midge Biology		21 LAB: Nematocera Identification
22 Black Flies & Onchocerciasis		23 DISC: [Should People Accept Non-traditional Control?]
24 Sand Flies & Leishmaniasis		
Mar		27 Tsetse Flies & Trypanosomiasis
	1 Filth Fly Biology	2 DISC: [Are GMO Skeptics Right?]
	3 Myiasis	
	6 Forensic Entomology	7 LAB: Fly Larva Identification
	8 LAB: Misc. Insect Identification	8 DISC: [Does SIT Show Renewed Promise?]
	10 EXAM III	

Grading: 75% - 3 Exams (Exams cover information from lectures, labs, lab. identifications, discussions, handouts, assigned reading)

25% - Discussion Performance (10% leadership, 15% participation) (investigative competence, organization, thoughtfulness, comprehension of issues)

Book: Mullen & Durden (2002). Medical & Veterinary Entomology. Academic Press

Instructors: Dr. Woodbridge Foster, 292-2204, Rm. 486 Aronoff Lab, foster.13@osu.edu.
Ms. Jennifer Tackett, 292-0981, Rm. 494 Aronoff Lab, JTMicroBuk@aol.com

Methodology: Learning strategies will include reading, lecture, discussion, and group solved case studies.

Preface: Clinical Chemistry is one of the most complex and comprehensive disciplines in the medical technology curriculum. Many treatment, management and prevention decisions are based on clinical chemistry results obtained by medical technologists. In addition, the clinical chemistry laboratory has undergone significant technological advancements that have impacted the day-to-day operation in the clinical chemistry laboratory. This technology not only has increased the rate at which tests are performed and the specificity and sensitivity of laboratory tests, but it has also significantly altered the role of the clinical chemistry technologist. Therefore, it is important, more so now, for medical technology students to understand the pathophysiology of disease states, to be aware of how clinical disease states can alter laboratory data, and to be proficient at oral and written communication with other healthcare professionals.

Rationale: Graduates from medical technology programs are expected to be able to work in the clinical chemistry laboratory or commercial clinical chemistry laboratories. In this position they will be expected to analyze patient samples, assess whether or not lab data is accurate, think critically, and problem solve. They will also be required to understand how lab data are collected and those methods used to determine whether or not instruments are functioning properly. Entry-level graduates will also be required to communicate with different members of the health care team.

Expectations: You are expected to be present for all scheduled examinations (all midterms and the final exam). You have one week within receipt of this syllabus and schedule to tell the instructor that you will not be able to take a scheduled exam. Make-up exams will be granted only in cases of severe hardship (excuse with physician statement). Make-ups exams, when granted, will be in oral format and must be completed within one week of the originally scheduled written exam.

Objectives: Upon completion of the course the student will be able to:

- 1) Identify and explain various physiological and analytical causes of variability in results on patient laboratory tests.
- 2) Explain the biochemical consequences of disease in the major organ systems

- 3) Interpret the meaning of laboratory tests and assess their significance in patient disease states
- 4) Explain the correct use of reference intervals and identify possible factors affecting them
- 5) Clinically correlate laboratory values with clinical disease states.
- 6) Write a clinical case as seen in the concept applications throughout the course.

Academic misconduct: **Academic misconduct of any kind will not be tolerated. Any suspected violation of the codes of conduct will be reported as described in the OSU Faculty Rules.**

Special needs: **If you have any special needs, please contact me so that we can determine if accommodations can be made to facilitate your learning**

**Evaluation of learning:
Lecture:**

The lecture section will receive a letter grade based on the following information:

Activity	Percent of grade
Midterm I	20%
Midterm II	20%
Final Examination	30%
Concept Apps	10%
Puzzles	5%
Paper	15%

Grade Scale:

A	91-100
A-	88-90
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	Below 60

NOTE: **Medical technology certification students only** are required to have a C- or better to advance to clinical practice.

Assignments:

Concept applications: You are provided with concept applications for each major topic area of clinical chemistry. You are expected to answer each concept application in writing and be prepared to discuss the concept applications in class. Concept applications are take-home, open book assignments that you can discuss with your fellow classmates. It is, however, essential that you understand the concepts required to complete the applications as you will be tested on information covered in the concept applications. The concept applications were developed to challenge you and some of the concept applications can be approached and answered differently so be prepared to discuss your approach and answers in class. The concept applications will be discussed in class and you will be expected to participate in these discussions. Concept applications will be worth 10% of your final grade

Puzzles: You are provided with crossword puzzles for all major area of clinical chemistry. You are expected to answer each of the puzzles in writing and be prepared to discuss the puzzles in class. The puzzles are worth 5% of your total grade.

Research Paper: You are required to research the literature and write a review paper on a topic selected from a list of topics provided by the instructor. If you do not find a topic of interest on the list, you may select another related topic. All topics **MUST** be approved by the instructor. Papers should meet the following criteria:

- ✓ Double-Spaced, 12-point font, 8 1/2 X 11 inch paper
- ✓ Hard copy or electronic submission using MS Word 98+ format
- ✓ Less than 15 pages in length including all figures, tables and references
- ✓ Contain a minimum of 10 references the majority of which are PRIMARY references (journal articles). Books, web-based materials and other references are acceptable so long as they are taken from credible sources and so not make up the majority of the references in the paper.

Papers will be graded on the following criteria:

- 1) Scientific merit
- 2) Thoroughness
- 3) Organization and clarity
- 4) Format including spelling, punctuation, and grammar

Alternative Project: You can substitute an alternative independent project for the written paper. I **MUST** approve the project in advance. The only limitation is that the project is feasible for the given time constraints and

that, in MY estimation, it is at least equivalent in terms of learning outcomes and student effort. Be creative.

Expectations:

In order to establish a climate for learning, a relationship of mutual respect and trust must be established.

You should be able to expect (among other things) that I am knowledgeable, prepared, enthusiastic, respectful, responsive, flexible, reasonably available, sensitive, fair and ethical. You should expect that I would provide a learning environment in which diversity will be tolerated and encouraged.

I expect that you will participate **actively** in the learning process, seek knowledge, communicate effectively, value diversity and question and challenge existing thought.

MEDICAL TECHNOLOGY

SCHOOL OF ALLIED MEDICAL PROFESSIONS THE OHIO STATE UNIVERSITY

COURSE TITLE: Molecular Investigations of Infectious Disease Outbreaks

COURSE NUMBER: MT 600.01 (lecture -- U/H 2 credit hours) and MT 600.02 (laboratory -- U 2 credit hours)

DESCRIPTION: These courses will provide the student with a basic theory and application of molecular techniques used to investigate infectious disease outbreaks. These courses will utilize food-borne diseases as a model for outbreak investigations. Additional diseases may be included if schedule permits.

INSTRUCTORS: Tammy L. Bannerman, Ph.D.
535B AMP
Phone: 292-7303 Ext 4#
Email: tbannerman@amp.osu.edu

Fuey-Jen Lin, Ph.D., MT(ASCP), CLSpMB(NCA)
535A AMP
Phone: 292-7303 Ext 6#
Email: hlin@amp.osu.edu

QUARTER OFFERED: Spring Quarter; Specific times to be determined

PREREQUISITES: Mol Gen 500, Admission to the Medical Technology Program or permission of the instructor

COURSE GOAL: Goal of the courses is to provide the student with the necessary molecular diagnostic theory to effectively, specifically, and efficiently investigate infectious disease outbreaks. Specifically, the courses will expose the student to the fundamental diagnostic skills associated with the analysis of food-borne outbreaks.

TEXTBOOK(S): To be determined

GRADE ASSESSMENT: Grades will be assigned as follows:

A	93-100	B-	80-82	D+	67-69
A-	90-92	C+	77-79	D	60-66
B+	87-89	C	73-76	E	0-59
B	83-86	C-	70-72		

Medical Technology students with a final grade below a C minus (considered unsatisfactory) will need to repeat the course. An unexcused absence for an exam or practical will result in a failing grade for the exam.

Undergraduate students: Students will be evaluated through the use written examinations and/or laboratory practicals as follows:

MT 600.01	Exam I	25%
	Exam II	25%
	Comprehensive Final Exam	50%
MT 600.02	Practical I	25%
	Practical II	25%
	Comprehensive Final Exam	50%

Undergraduate Honors students: Honors students will be expected to spend approximately one additional hour per credit hour, per week on honors-related work associated with this course. The instructor will meet periodically with honors students in a seminar/recitation environment. Students will be evaluated through the use written examinations, laboratory practicals and an infectious disease project as follows:

MT 600.01	Exam I	20%
	Exam II	20%
	Comprehensive Final Exam	40%
	Infectious disease project	20%
MT 600.02	Practical I	20%
	Practical II	25%
	Comprehensive Final Exam	40%
	Infectious Disease project	20%

Infectious Disease Project in MT 600.01 will require the student to research “instructor-pre-approved” etiologic agent(s) that cause an outbreak (excluding food-borne diseases). Evaluation of the project comprises a written report due to the instructor and 20 minutes-oral presentation to class. The content of written report should include, but is not limited to, pathogenesis of etiologic agents, methods of diagnosis (must include at least one molecular testing), treatment options as available, epidemiological history, control and preventions, and all information references utilized during the production of the research report.

Infectious Disease Project in MT 600.02 will be an extension of the MT 600.01 project by adding at least one additional molecular testing. The student will be expected to research and contract pros-cons of each method (including the first molecular test presented in MT 600.01) in detail, provide a written report to turn-in, and present the material in a 20 minutes lecture format to the class.

OBJECTIVES: Upon completion of these courses, the student will be able to:

1. Investigation of infectious disease outbreaks
 - a. Define an outbreak

- b. Define terms used in outbreak investigation
 - c. Describe the rationale for investigating outbreaks
 - d. Describe the features of outbreaks and outbreak investigations
2. Basic molecular principles and techniques
- a. Describe nucleic acid structure and chemistry
 - b. Describe nucleic acid replication, transcription, translation
 - c. Describe the following theory and techniques (and their variations):
 - i. Extraction and quantitation of nucleic acids
 - ii. Electrophoresis
 - iii. Hybridization
 - iv. Amplification
 - v. Sequencing
 - vi. Signal detection and automation
 - vii. Quality control, confidence assess and contamination preventions
3. Laboratory molecular techniques
- a. Identify and perform general laboratory safety procedures
 - b. Describe, perform, and troubleshoot nucleic acid preparation
 - c. Describe and troubleshoot restriction digestion
 - d. Describe, perform, and troubleshoot electrophoresis
 - e. Describe, perform, and troubleshoot nucleic acid amplification
 - f. Develop strategy for quality control
4. Summarizing laboratory results
- a. Evaluate quality of results
 - b. Interpret results

SPECIAL NEEDS: If you have any special needs, please contact me so that we can determine if accommodations can be made to facilitate your learning. The OSU Office for Disability Services can verify the need for accommodations and provide any needed guidance and assistance in devising appropriate accommodations. Students are reminded that this assistance must be requested. We are happy to work with you, but we cannot anticipate or respond to needs if they are not brought to our attention. Please visit their website for more information at the following address:
<http://www.ods.ohiostate.edu/textonly/index.htm>

ACADEMIC

MISCONDUCT: Academic misconduct of any kind will not be tolerated. Any suspected violation of the codes of conduct will be reported as described in the OSU Faculty Rules (rule # 335-5-54).

Guiding Questions for Week 6

1. What is a decision from the perspective of garbage can decision making?
2. What are the four streams of decision making? How are they coupled and how do they interact with each other?
3. How are decisions made by flight and oversight? Can you give examples from your daily life and work?
4. Which styles of decision making are predominant in organized anarchies? Why?
5. What is organizational slack? How much of it does the OSU have?
6. What are the essential characteristics of organized anarchies according to Cohen and March? How are these characteristics manifested at Birnbaum's Flagship University?
7. What makes presidents' purpose, power, experience, and success ambiguous?
8. What are the implications of this ambiguity for college and university leadership? How does the ambiguity affect President Foster's actions in Birnbaum's Flagship University?
9. What tactics of administrative action do Cohen and March observe in colleges and universities as organized anarchies?
10. What are the central tenets of Cohen and March's technology of foolishness? What is the technology "foolish"?
11. What are the intellectual and societal sources and limitations of conventional rational choice approaches?
12. How does organized anarchy compare to hierarchical bureaucracy in its goals, technology, and participants?

Medical Technology Division

“We live in a society exquisitely dependent on science and technology, in which hardly anyone knows anything about science and technology.” -- *Carl Sagan*

Course # & Title: Medical Technology (MT) 640 D U/G(4)
Advanced Laboratory Techniques

Website: <http://amp.osu.edu/mt/automation/website/default.htm>

Description: This course includes the study of the theory and principles of automation and instrumentation used in laboratories. An emphasis will be placed on quality control, quality assurance, instrumentation principles, basic statistics, and the regulatory, and economic issues encountered in laboratories including, clinical labs, health labs, government labs, private labs and other laboratories.

This is an online course intended to be completed at a distance.

Instructor: Janelle M. Chiasera, MS, MT(ASCP)
535 Atwell Hall Suite 535D
Columbus, Ohio 43210
614-292-7303 ext. 1#
Fax: 614-292-0210
<mailto:jchiasera@amp.osu.edu>

Office Hours: Electronic office hours (Wednesdays 1-2pm via chat)
I can also be reached via email. Please allow 48 hours for me to respond to an e-mail request.

Learning Resources:

- ✓ Ward-Cook KM, Lehman CA, Leiken AM, Schoeff LE, Williams RH. Clinical Clinical Diagnostic Technology: The Total Testing Process, vol 2. AACC Press, Washington, DC, 2003
(Required)
- ✓ Ward-Cook KM, Lehman CA, Leiken AM, Schoeff LE, Williams RH. Clinical Clinical Diagnostic Technology: The Total Testing Process, vol 1. AACC Press, Washington, DC, 2003
(Optional)
- ✓ Ward-Cook KM, Lehman CA, Leiken AM, Schoeff LE, Williams RH. Clinical Clinical Diagnostic Technology: The Total Testing Process, vol 3. AACC Press, Washington, DC, 2003
(Optional)

- ✓ Class Website (TBA): A class website has been developed to aid in the organization of the course. It is strongly suggested that students visit the website at the least once a day so as to keep abreast of course changes, additions, updates, grade, and other information as necessary.

Computers are available for your use in room 436 Atwell Hall in addition to several student computer center locations across campus. Student Computer Center Locations and Hours can be found at the link below.

http://scwco.ohio-state.edu/web_development/public/map.html

Prerequisites: Admission to the Medical Technology Program or permission of instructor. Completion of Chemistry 121 and Bio 113.

Rationale: There has been a tremendous growth in the field of laboratory automation, especially in the last 20 years. Laboratory automation and the growing emergence of robotics have transformed the typical workday for many individual scientists. Scientists and technologists that used to spend time performing tasks of tedious repetition now have the time to think creatively about implications of their experiments and to design effective follow-up projects to develop alternative approaches to their work. In this environment, laboratories of all kinds are influenced not only by the advances in technology and medicine, but they are also influenced by the regulatory (i.e. federal regulatory agencies and legislation), social (i.e. quality assurance issues) and economic (i.e. cost containment, budget) issues that surround such technological advances. Scientists and those working in the science arena need to be familiar with all the influential factors under which they work so as to be able to make sound decisions and to be able to communicate those decisions and their rationale.

I welcome you to this course, and wish you well with your studies.

Course Goals: This course will provide you with the opportunity to become familiar with laboratory automation practices and principles (such as spectrophotometry, chromatography, electrophoresis, and electrochemistry to name a few) and their related political, social and economic issues. Emphasis will be placed on laboratory instrumentation principles and the quality assessment of related instrumentation.

Objectives:

- 1) Given laboratory data and instrumentation information, the student will identify problems that may lead to faulty laboratory values with major instrumentation principles including spectrophotometry, chromatography, electrophoresis, electrochemistry, immunoassays, densitometry and others as covered in the course modules and the course text.
- 2) Given appropriate laboratory data, the student will evaluate the reliability of laboratory instrumentation according to federal regulations
- 3) Without reference, the student will describe the basic clinical laboratory instrumentation principle central to all of the following: spectrophotometry, chromatography, electrochemistry, electrophoresis, nephelometry, fluorometry, chemiluminescence, atomic absorption, and fluorescent polarization.
- 4) Without reference, the student will differentiate between the major categories of analytical variation (pre-analytical, analytical, and post-analytical).
- 5) Given a category of instrumentation variation (either pre-analytical, analytical, or post-analytical), the student will propose and defend a plan to correct that level of variation.
- 6) Given Levy-Jennings control charts, the student will correctly interpret the status of control values on the given chart according to Westgard multi-rule guidelines.
- 7) Without reference, the student will list quality monitors that can be used for laboratory improvement.
- 8) Given appropriate laboratory and instrument data, the student will select and calculate the statistics needed to assess the performance of an instrument. Students will include the assessment of at least the following:
 - ✓ daily QC
 - ✓ instrument precision
 - ✓ accuracy
 - ✓ bias
 - ✓ recovery
- 9) Given the use of the internet and other related laboratory information, the student will create an instrument specific portfolio in accordance with attached rubric A.
- 10) Given instrumentation errors, the student will be able to trouble-shoot the problem and take corrective action to resolve the error.
- 11) Without reference, the student will be able to demonstrate the ability to articulate and organize their thoughts on instrumentation in the written format in accordance with attached rubric B.

Performance Evaluation:

Lecture:	Activity	Percent of grade
	Quizzes (16)	Self evaluation
	Reflection papers (4)	10%
	Midterms (2)	30%
	Final exam (1)	30%
	Portfolio (1)	30%
	Total points	100%

Grade:

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	Below 60

A final examination grade of C - or better is required to pass the course

Academic Misconduct: Academic Misconduct of any kind will not be tolerated. Any suspected violation of the codes of conduct will be reported as described in the OSU Faculty Rules (rule # 3335-5-54).

Special needs: if you have any special needs, please contact me so that we can determine if accommodations can be made to facilitate your learning. The OSU Office of Disability Services can verify the need for accommodations and provide any needed guidance and assistance in devising appropriate accommodations. Students are reminded that this assistance must be requested. We are happy to work with you, but we cannot anticipate or respond to needs if they are not brought to our attention. Please visit their website for more information at the following address:

<http://www.ods.ohio-state.edu/textonly/index.htm>

Portfolio Project: All students are required to prepare an instrument specific portfolio. The purpose of the portfolio is to allow students the opportunity to research an instrument of their own choice in greater detail. This portfolio is designed as an opportunity for you to be creative with information gathering and information presentation. Manufacturer information, information collected from your lab, interviews of med techs as well as customer service reps are all encouraged as means to gather information about a specific instrument. The more creative you are in your approach to the portfolio the better.

It is strongly recommended that you select an instrument that has one or two major associated methodologies, i.e. Coulter counter (Heme), Osmometer (Chem), BacTec (Micro), Mass spectrophotometer (Microbiology).

Although there is no single correct way to develop the portfolio, all of them should include at the very minimum the following information:

- Company overview
- Instrument overview
- Principle the instrument employs
- Uses for the instrument (test/s it is capable of performing)
- A written procedure for using the instrument
- Maintenance required by the instrument
- Cost (instrument cost and cost per test)
- Impact (improved turn around times, faster, bigger menu, walk away)
- Service agreements (What's included when you buy it)
- Advantages/Disadvantages
- Would you add anything to this instrument?
- Conclusion summarizing overall impression of instrumentation
- Cover page including portfolio title and author information as follows:
 - Name, email, address, phone

Again, the above should serve as a minimum point. You are encouraged to include other information as you feel necessary. Rubric A will be used to evaluate the final portfolio.

The final draft of the portfolio will meet the following criteria:

- ✓ Typed and submitted in either electronic format (Word 98+) or a hard copy on the due date specified in the class schedule. Late portfolios will be penalized 2% per day past the specified due date.
- ✓ All portfolios will be double spaced, 12 point font, Times New Roman.
- ✓ All portfolios will have 1" margins all around and will be submitted on 8½X 11" paper or in electronic format.
- ✓ All portfolios will be written according to APA guidelines. All reference materials used for the paper should be referenced and references cited according to APA guidelines.

Reflection paper: All students will be prompted by the instructor to reflect on their experience with clinical laboratory instrumentation 4 times throughout the course. All reflection papers will be typed in Word and submitted as an email attachment. Reflection papers will be at a minimum of 3 typed double-spaced pages (12 point font, Times New Roman (or equivalent)) and will not exceed 5 typed double-spaced pages (12 point font, Times New Roman (or equivalent)).

Reflection papers are personal in nature, but are still rigorous with regard to evaluating the ability of the student to develop and organize their thoughts on paper.

These reflection papers are required for the following reasons:

- ✓ To allow the student the opportunity to put thoughts on paper
- ✓ To allow the student the opportunity to demonstrate their mastery of the reading material and modules, and also their ability to reflect on how theory applies to practice
- ✓ To allow the student the opportunity to articulate ideas and arguments while reading and experiencing instrumentation in the clinical setting
- ✓ To allow the student the opportunity to explore ideas not necessarily covered in the course modules or assigned readings.
- ✓ To allow the student the opportunity to apply what students are learning in theory to their own personal clinical experience
- ✓ To allow the student the opportunity to speculate about the future with regard to instrumentation
- ✓ To allow the student the opportunity to experience the connections and disconnects between theory and practice and the ability to put those thoughts on paper.
- ✓ To allow the student the opportunity to explore the underlying value of the class reading and class modules.

Reflection papers will be graded according to rubric B.

Midterms and Examinations: All midterm and examinations will be taken online. The education coordinators for the clinical affiliates will act as proctors for the examination process. All midterms and examinations will be timed tests with a maximum time of 2 hours allowed for the midterm and 3 hours allowed for the final examination. The midterm and the final examination will be a closed book format.

Graduate Student Requirement:

All graduate students will be required to prepare and deliver an oral presentation on their selected instrument to an audience of professionals. The audience must be previously approved by the instructor of the course. Presentations should be no longer than 20 minutes in length and should include time at the end of the presentation for questions. Presentation materials will be turned in 1 week prior to the scheduled presentation to the instructor. Student will be graded on the presentation materials and the audience evaluation forms. See attached evaluation form.

Topics to be covered:

Spectroscopy
Advanced Spectroscopy
Nephelometry
Turbidity
Reflectance
Atomic Absorption
Fluorometry
Fluorescent Polarization
Chemiluminescence
Immunoassays
Impedance Flow
Chromatography
Resolution, affinity, cation-exchange,
reverse and normal phase
Chromatography
Isolation of peaks, GLC, HPLC, Mass
Spec
RIA
Competitive Binding
Electrophoresis
Densitometry
DNA
Microbiology Automation
Electrochemistry
Blood gas management
Statistics
Method Evaluation
Sensitivity/Specificity
Interference
Reference
Calibration
QA, competency, proficiency, CAP/CLIA,
pre/post analytical variables
Predictive Value Theory
Automation/Instrument selection

Portfolio Rubric (Rubric A)

Content		
Company profile stated in great detail 5	Company profile discussed, but greater detail needed 4 3 2	Company profile missing or is incomplete and/or incoherent 1 0
Instrument description explained in detail 5	Instrument description discussed, but certain aspects of the instrument were missing 4 3 2	Instrument description missing or is incomplete and incoherent 1 0
Methodology of instrument discussed in detail 5	Methodology of instrument eluded to, but more information needed 4 3 2	Methodology of instrument missing or is incomplete or incoherent 1 0
Title and cover page information provided 5	Title and cover page information incomplete 4 3 2	Title and cover page information completely missing 1 0
All information on instrument is factually correct 5	Most information on instrument is factually correct 4 3 2	Many factual errors/inconsistencies 1 0
Excellent use of creativity in the production of the portfolio 5	Adequate use of creativity in the production of the portfolio 4 3 2	Inadequate use of creativity in the production of the portfolio 1 0
Impressive depth of insight/analysis 5	Adequate depth of insight/analysis 4 3 2	Unexceptional insight/analysis 1 0
Clear organization 5	Adequate organization 4 3 2	Confusing organization 1 0
Smooth transitions 5	Adequate transitions 4 3 2	Awkward transitions 1 0
Effective conclusion/integration 5	Adequate conclusion/integration 4 3 2	Weak conclusion/integration 1 0
Format and Style		
Excellent APA style 5	Adequate APA style 4 3 2	Poor APA style 1 0
Correct grammar/ no spelling mistakes 5	Few grammar mistakes/ few spelling mistakes 4 3 2	Incorrect grammar/Many spelling mistakes 1 0
Clean legible paper	Adequate paper	Sloppy paper

5	4 3 2	1 0
Excellent variety of sources 5	Adequate variety of sources 4 3 2	Inadequate variety of sources 1 0
Reference page is complete 5	Reference page is not complete 4 3 2	Reference page is missing 1 0
All references included 5	Most reference included 4 3 2	No references included 1 0
Tables and figures developed according to APA style 5	Most tables and figures developed according to APA style 4 3 2	Table and figures not developed according to APA style 1 0
Overall impression of paper	1-5	

Total= 90 points

Academic misconduct of any kind will not be tolerated. Please consult the student handbook for more information.

Reflection Paper Rubric (Rubric B)

Clearly ties personal experience, attitude and behavior into the paper 5	Some personal experience, attitude and behavior incorporated into paper 4 3 2	Failed to tie personal experience, attitude and behavior into the paper 1 0
Clearly demonstrates understanding and application of concepts in the reading and modules 5	Some demonstration of understanding and application of concepts in the reading and modules 4 3 2	Very little demonstration of understanding and application of concepts in the reading and modules 1 0
In-depth discussion and elaboration 5	Moderately deep discussion and elaboration 4 3 2	Very little deep discussion and elaboration 1 0
Ties together information from text and modules to their own personal experience 5	Some ties made between assignments and own personal experience 4 3 2	Very few ties made between assignments and own personal experience 1 0
Articulates ideas and arguments clearly throughout paper 5	Some articulation of ideas and arguments throughout paper 4 3 2	Very few ideas and arguments presented in paper 1 0
All information in paper is factually correct 5	Most information on paper is factually correct 4 3 2	Many factual errors/inconsistencies 1 0
Excellent use of creativity in the production of the paper 5	Adequate use of creativity in the production of the paper 4 3 2	Inadequate use of creativity in the production of the paper 1 0
Clear organization 5	Adequate organization 4 3 2	Confusing organization 1 0
Smooth transitions 5	Adequate transitions 4 3 2	Awkward transitions 1 0
Effective conclusion/integration 5	Adequate conclusion/integration 4 3 2	Weak conclusion/integration 1 0

Total= 45 points

Janelle Chiasera

Course: Medical Technology MT 640

Email: jchiasera@amp.osa.edu

Presentation Evaluation

(SA=Strongly Agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly Disagree)

- | | | | | | |
|---|----|---|---|---|----|
| 1: Presentations were well organized. | SA | A | N | D | SD |
| 2: Instructor spoke clearly and audibly. | SA | A | N | D | SD |
| 3: Instructor presented material at an appropriate pace. | SA | A | N | D | SD |
| 4: Instructor presented material at an appropriate level. | SA | A | N | D | SD |
| 5: Instructor showed enthusiasm for teaching the course. | SA | A | N | D | SD |
| 6: Instructor's explanations were clear. | SA | A | N | D | SD |
| 7: Content was presented in an interesting manner. | SA | A | N | D | SD |
| 8: Instructor used good examples and illustrations. | SA | A | N | D | SD |
| 9: Instructor helped clarify difficult material. | SA | A | N | D | SD |
| 10: Instructor distinguished clearly among fact, theory, and opinion. | SA | A | N | D | SD |
| 11: Models, samples, or demonstrations were helpful for learning. | SA | A | N | D | SD |

12: Please comment on the instructor's presentation skills (clarity of speech, volume of speech, rate of speech, mannerisms, and the like).

13: Please comment on the extent to which the instructor communicated in a way that enabled understanding.

14: Please comment on qualities that you liked or would suggest for improvement regarding the instructor's presentations.

Schedule

Date	Topic	Module
March 28, 2005	Introduction to Online Learning	1
March 30, 2005	QA/QC Basics	2
April, 4, 2005	Advanced QC	3
April 6, 2005	Spectrophotometry Basics	4
April 11, 2005	Advanced Spectrophotometry	5
April 13, 2005	EXAM I	
April 18, 2005	Chromatography Basics	6
April 20, 2005	Chromatography Methods	7
April 25, 2005	Mass Spectroscopy	8
April 27, 2005	Immunoassays	9
		Complete mid course evaluation online
May 2, 2005	EXAM II	
May 4, 2005	Electrophoresis	10
May 9, 2005	Electrochemistry	11
May 11, 2005	Impedance Flow	12
May 16, 2005	Microbiology Automation	13
May 18, 2005	Predictive Value	14
May 23, 2005	Method Evaluation Basics	15
May 25, 2005	Advanced Method Evaluation	16
June 1, 2005	Portfolio due	
June 6-9	Final Exam - Comprehensive	End of Course Evaluation

Clinical Chemistry
MT 645.01 U/G + Honors

*“Learning is not attained by chance,
it must be sought for with ardor and attended to with diligence”
Abigail Adams*

Description: Theory of clinical laboratory techniques to identify and quantitate chemical analytes in body fluids

Lecture: Monday and Wednesday (5 credit hours)
8:30-9:48am
327 Atwell Hall

Friday
8:30-10:18
327 Atwell Hall

Instructor: Janelle M. Chiasera, MS, MT(ASCP)

Atwell Hall Rm. 535D
453 W10th Avenue
Columbus, Ohio 43210
614-299-7011
jchiasera@amp.osu.edu

Home
383 W 4th Avenue
Columbus, Ohio 43201
614-299-7011
cell: 832-4390

Office Hours: By appointment

Learning Resources:

- ✓ Anderson, S.C. & Cockayne, S. Clinical Chemistry: Concepts and Applications. McGraw-Hill, Inc, New York, NY, 2003.
REQUIRED
- ✓ Christenson, R.H., Gregory, L.C., Johnson, L., Hutton, J.E., Shugar, G. Appleton and Lange's Outline review of Clinical Chemistry, McGraw Hill, New York, NY, 2001.
REQUIRED
- ✓ Campbell, J.B., Campbell, J.M. Laboratory Mathematics: Medical and Biological Applications, fifth edition, Mosby, St. Louis, Missouri, 1997.
OPTIGNAL
- ✓ Cop-Ez Packet: Laboratory Manual
REQUIRED for certification students only

Preface:

Clinical Chemistry is the specialty area of clinical laboratory science that deals with the qualitative and quantitative analyses of body fluids. There has been a tremendous growth in the field of clinical chemistry, especially in the last 20 years. Today, the clinical chemistry laboratory is influenced not only by advances in technology and medicine, but also political (i.e. federal regulatory agencies and legislation), social (i.e. quality assurance issues) and economic issues (i.e. cost containment, budget). Clinical laboratory scientists need to understand all these influential factors under which they work.

The clinical chemistry laboratory is a dynamic area of the clinical laboratory. As clinical laboratory scientists we must consider ourselves life-long learners, constantly striving to keep pace with not only technology, but also remain cognizant of the political and economic forces that drive the technology. As a student in MT 645 you will gain knowledge and experience in principles of the clinical chemistry laboratory, quality control, specimen collection variables, and interferences in laboratory tests.

I welcome you to MT 645 and wish you well with your studies

Aim:

To provide students with knowledge in clinical chemistry that a beginning Medical Technology professional working in a health environment requires.

During the course the student becomes familiar with the theoretical background of clinical chemistry tests and laboratory investigation, their practical application and clinical interpretation. The course builds upon previously acquired knowledge of medical biochemistry and physiology and to some extent other Medical Technology disciplines (i.e. hematology, urinalysis and body fluids).

Objectives: Upon completion of this course the student will be able to:

- 1) Without reference, describe the theoretical principles of common lab tests and their appropriate clinical application as discussed in class.
- 2) Given appropriate laboratory data, interpret the lab results as normal, increased or decreased.
- 3) Given an appropriate laboratory procedure, perform the routine clinical chemistry related laboratory test.
- 4) Given Levy-Jennings control charts, verify the validity of test results using QA & QC measures discussed in class.
- 5) Given appropriate lab data, interpret the data and describe the significance of findings as a mirror of the functioning of a healthy or sick cell, organ or whole organ system.
- 6) Given a discrepancy between a test result and patient clinical condition, describe factors (pre-analytical, analytical and post-analytical) that could be the cause of the discrepancy.
- 7) Given appropriate data, select situations when laboratory data does not correspond to a patient's clinical condition.
- 8) Given a patient clinical condition, describe and interpret additional laboratory testing to best assess the patient's clinical condition.
- 9) Given a patient scenario, describe the pre-analytical variables that may interfere with laboratory testing on the given scenario.

Methodology: Learning strategies will include reading, lecture and discussion.

Performance Evaluation:

Lecture:	Activity	Percent of grade
	Quizzes	10
	Exam I	20
	Exam II	20
	Exam III	20
	Final Exam	30

Grading Scale: Grades will be based on the following scale:

A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	Below 60

**** A final examination grade of C- or better is required to pass the course****

You are expected to be present for all scheduled examinations (all exams and practicals). Make-up examinations will be granted only in cases of severe hardship, i.e. illness with physician statement. Make-up exams, when granted, will be in the oral format and must be completed within one week of the originally scheduled written examination.

Misconduct: Academic misconduct of any kind WILL NOT be tolerated. I will report cases of suspected academic misconduct in accordance with faculty rules as described in the OSU Faculty Rules (rule # 3335-5-54). If you are found guilty of academic misconduct, there is a strong probability that you will be given a rigorous academic sanction such as failure in this course.

Special Needs: If you have any special needs, please contact me so that we can determine if accommodations can be made to facilitate your learning. The OSU Office of Disability Services can verify the need for accommodations and provide any needed guidance and assistance in devising appropriate accommodations. Students are reminded that this assistance must be requested. We are happy to work with

you, but we cannot anticipate or respond to needs if they are not brought to our attention. Please visit their website for more information at the following address:

<http://www.ods.ohio-state.edu/textonly/index.htm>

- Notes:**
- 1) A library of current references is available in the MT Division office. These books and journals can be used in the reading room. Except in extraordinary circumstances, these resources CANNOT be removed from the office suite.
 - 2) Computers are available for your use in the computer lab on the 4th floor and in 227 Atwell Hall. Computers are also available in public sites across campus.
 - 3) If you disagree with an examination grade, there is a formal appeal process. If you think that you have been unfairly or incorrectly graded, please submit a written appeal within 48 hours of the date on which the exam took place or the assignment was returned. In the appeal include what you think the correct response is to the item and defend your answer. Include a PUBLISHED reference that supports your answer, for example, a copy of a page from a text or a journal article. Your notes are not sufficient to defend a response. Return the original graded exam along with your appeal. I will review appeals within 48 hours and if warranted, I will adjust the grade.

Expectations: In order to establish a climate for learning, a relationship of mutual respect and trust must be established.

You should be able to expect (among other things) that I am knowledgeable, prepared, enthusiastic, respectful, responsive, flexible, reasonably available, sensitive, fair and ethical. You should expect that I would provide a learning environment in which diversity will be tolerated and encouraged.

I expect that you will participate **actively** in the learning process, seek knowledge, communicate effectively, value diversity and question and challenge existing thought.

Graduate Student Requirement:

All graduate students are required to research a Clinical Chemistry topic of interest and prepare a 30 minute oral presentation on recent advances in the selected topic as it applies to the clinical diagnosis, management, and treatment of human disease. All oral presentations should be no longer than 20 minutes in length leaving a ten minute period for questions and answers. All presentation

materials (handouts, powerpoint presentations, etc.) are due 1 week prior to the scheduled oral presentation. Students will be graded according to the attached rubric (rubric A). The grade will be based on a combination of peer evaluations, teacher evaluation and self evaluation.

Honors Student Requirement:

Honors students will be expected to spend approximately one additional hour per credit hour, per week on honors-related work associated with this course. The instructor will meet periodically with honors students in a seminar/recitation environment.

All honors students will be required to write 2 complete case studies on two different clinical chemistry topics of their choice. The first selected case study is due no later than 5pm of the 5th Friday of the quarter. The second case study is due no later than 5pm the last Friday of the quarter. All case studies will include, at a minimum, the following information:

- ✓ Patient History
- ✓ Table of chemistry and other related laboratory results as needed
- ✓ Discussion of the Case Study demonstrating a thorough understanding of the correlation of laboratory data with disease status.

All case studies should be typed and double spaced using a 12 point font (either Ariel or Times New Roman). Case Studies should not exceed 5 pages in length including references.

See instructor of course for example case studies.

Performance Evaluation: Graduate & Honors Students

Lecture:	Activity	Percent of grade
	Quizzes	10
	Exam I	20
	Exam II	20
	Exam III	20
	Final Exam	20
	Oral Presentation/Case studies	10

**Rubric A:
Oral Presentation Rubric**

Evaluator _____

Introduction		
Outline of presentation covered before presentation 5	Outline of presentation eluded to but not covered on presentation 4 3 2	Outline of presentation missing 1 0
Introduction to topic stated in great detail 5	Introduction of topic discussed, but greater detail needed 4 3 2	Introduction to topic missing or is incomplete and/or incoherent 1 0
Importance of knowledge on the topic discussed in detail 5	Importance of knowledge on this topic eluded to, but more information needed 4 3 2	Importance of knowledge on this topic missing or is incomplete or incoherent 1 0
Presenter introduction completed in detail 5	Presenter introduction brief, but more information required 4 3 2	Presenter information missing 1 0
Presenter showed a great deal of interest/enthusiasm in the topic 5	Presenter showed moderate interest/enthusiasm in the topic 4 3 2	Presenter showed no interest/enthusiasm for the topic 1 0
Content		
All information is factually correct 5	Most information is factually correct 4 3 2	Many factual errors/inconsistencies 1 0
Excellent background, context, and idea development 5	Adequate background, context, and idea development 4 3 2	Inadequate background, context, and idea development 1 0
Impressive depth of insight/analysis 5	Adequate depth of insight/analysis 4 3 2	Unexceptional insight/analysis 1 0
Clear organization 5	Adequate organization 4 3 2	Confusing organization 1 0
Smooth transitions 5	Adequate transitions 4 3 2	Awkward transitions 1 0
Effective conclusion/integration 5	Adequate conclusion/integration 4 3 2	Weak conclusion/integration 1 0
References were included 5	References were incomplete 4 3 2	References were missing 1 0

Format and Style		
Presentation visuals were extremely helpful 5	Presentation visuals were somewhat helpful and others were distracting 4 3 2	Presentation visuals were distracting or not used when they were needed 1 0
Presentation contained no grammar/spelling mistakes 5	Presentation contained few grammar mistakes/ few spelling mistakes 4 3 2	Presentation contained incorrect grammar/many spelling mistakes 1 0
Presenter connected with the audience 5	Presenter sometimes connected with the audience 4 3 2	Presenter did not connect with the audience 1 0
Presenters voice was clear with good speed, volume and inflection 5	Presenters voice was adequate with adequate speed, volume, and inflection 4 3 2	Presenters could not be heard and spoke too quietly 1 0
Handouts were included with presentation 5	Handouts were given but were incomplete 4 3 2	No handouts were given 1 0
Presenter was able to answer questions on the topic 5	Presenter answered most questions 4 3 2	Presenter could not answer any questions 1 0
Presentation slides were easy to read 5	Presentation slides were crowded, but I was still able to read them 4 3 2	Presentation slides were crowded, confusing and were a distraction 1 0
Overall thought on presentation	1-5	

Total= 100 points

Academic misconduct of any kind will not be tolerated. Please consult the student handbook for more information.

MOLECULAR GENETICS 500

Winter 2006

M W F 1:30-2:48 PM

Rm 0021, Lazenby Hall

Instructor: Gregory C. Booton, PhD.

Depts. of Molecular Genetics & EEOB

388 Aronoff Laboratory

318 W. 12th Ave.

Contact Information:

Email: booton.1@osu.edu

Phone: 614-292-4570

Office Hours (Wi06): Mon: 10:30-11:30am; Wed: 3:00-4:00pm

Graduate Teaching Assistants:

The GTAs will hold office hours twice a week. They will help to answer questions about the material and to help solve assigned end of chapter problems. For specific questions regarding the lectures please contact the instructor during office hours.

Hongtaou Jia: jia.10@osu.edu

Office hour: Thurs. 3:00-5:00pm, 941 Biological Sciences Building

Casey Jowdy: jowdy.1@osu.edu

Office hours: Tues. 9:30-10:30am and Thurs. 3:00-4:00pm, Rightmire Hall, room 125, call first from the phone in the front foyer to get in the building. The number is 292-5107.

Tse-Chun Kuo: kuo.85@osu.edu

Office hours: Fri. 3:00-5:00 pm, please email for exact location.

Ching-Hui Yang: yang.1030@osu.edu

Office hours: Tues. 1:30-3:30pm, 211 Biological Sciences Building.

Course Description:

This course will provide students with a robust survey of the principles of genetics, including molecular genetics, transmission genetics, developmental genetics, non-chromosomal genetics, and the genetics and evolution of populations. In addition, recent advances in genetics and the

implications/effects of these advances on science, business, politics, and society in general are addressed throughout the course.

General Information:

You are responsible for materials in chapters covered in lecture unless otherwise noted in class, and for material covered in lectures, even if material is not in the textbook. This course moves at a very rapid rate and it is very important to your success that you do not fall behind.

Practice problems will be assigned for each chapter. These practice problems cover material that is similar to the type of material that will be covered on the exam.

The exam will be a mixture of multiple choice and short answer. I will not stress rote memorization of all the details of these chapters, but you should know some of the important facts. I will let you know what specific facts I feel are important during lectures. With that in mind, your presence at lectures will be directly reflected in your performance on the midterms and final. The concepts that I will try to stress are hypothesis testing and question formulation, and how researchers in the past have addressed questions, and how the knowledge that they obtained by these experiments led to further questions. It is a process that continues today, and one that all of you will employ to some greater or lesser degree in your future scientific careers.

Grading:

Your final grade will be based on a total of 400 available points in this course. This will be made up of 2 Midterms worth 120 points each (each midterm is 30% of final grade) and 1 comprehensive Final of 160 points (40% of final grade), which will comprise 40 points worth of questions from the first portion of the course, 40 points from the second section of the course, and 80 points from the final portion of the course.

NOTE: Student identification cards will be required at all exams. All students must hand in their exam by the end of the exam period, there will be no extra time for students that arrive late. The format of the exams will be multiple choice, short answers, and problem solving questions similar to the assigned problems at the end of chapters. Midterms will be given **only** at the scheduled times. **NO** makeup examinations will be given. If you miss a **single** midterm for **ANY** reason, the corresponding segment of the comprehensive final exam will be used to calculate a missed midterm grade (eg., $40 \times 3 = 120$) and will also contribute 40 points to your final exam score. You must **NOT** miss more than one midterm; this will result in an

automatic **E** for the course. The final exam must be taken to receive a grade in this course. If you miss the final, you will be given an incomplete (**I**) for the course. University regulations will be followed with respect to absence at a final exam. That is, you will be allowed to make up the incomplete grade **only** after providing documentary proof that you missed the exam because of severe illness. Otherwise, your grade will be based on the points received, counting the final exam as zero. Students are expected to abide by the Code of Student Conduct as outlined in the University Student Handbook.

Carmen:

Powerpoint presentations, assigned problems for chapters, and keyword study guides for chapters will be available at the Carmen website. Each student enrolled in MG500 will have access to the website for the course, and you should check there for handouts, powerpoint files, and announcements about the course on a regular basis. You are responsible for obtaining the powerpoint handouts **BEFORE** lecture. Handouts will not be available in lecture. The lectures moves rapidly, based on the assumption that the students have the powerpoint handouts, so please print them out ahead of class time. If you have not used Carmen before please visit <http://telr.osu.edu/carmen-help/students/guide.html> for more information about student usage of Carmen.

Textbook:

**Concepts of Genetics. William S. Klug & Michael R. Cummings, 8th Edition. 2006. Prentice Hall
ISBN 0-13-191833-8**

Additional Reference Materials:

Genes VIII. Lewin, B. 2000. Oxford Univ. Press

Genetics: Analysis of Genes and Genomes. Hartl, D.L., & Jones, E.W. 6th edition. 2000. Jones and Bartlett

Genetics: From Genes to Genomes. Hartwell, et al. 2st Edition, 2000. McGraw-Hill Co.

Dancing Naked in the Mind Field. Mullis, K. 1998. Pantheon Books, NY

These books are on reserve in the Biological Sciences-Pharmacy Library

Tentative Syllabus
(Schedule subject to change)

DATE		Topic	Chapters
Weds., Jan.	4	Introduction, Mitosis	1, 2
Fri	6	Mitosis, Meiosis	2, 3
Mon.	9	Mendelian Genetics	3
Wed.	11	Mendelian Genetics (cont)	3
Fri.	13	Extensions of Mendelian Genetics	4
Mon.	16	HOLIDAY- no class	
Wed,	18	Extensions (cont), Quantitative Genetics	24
Fri.	20	Linkage analysis	5
Mon.	23	MIDTERM I (through 1/20/06 material)	
Wed.	25	Sex determination/sex chromosomes	7
Fri.	27	Extrachromosomal inheritance	9
Mon.	30	Developmental genetics	23
Wed., Feb.	1	DNA structure and analysis	10
Fri.	3	DNA structure and analysis (cont)	10
Mon.	6	DNA Replication	11
Wed.	8	DNA Replication (cont)	11
Fri,	10	Genetic code	13
Mon.	13	Transcription	13
Wed	15	MIDTERM II (through 2/13/06 material)	
Fri.	17	Translation	14
Mon.	20	Gene Mutation, DNA Repair	15
Wed.	22	DNA Repair	15
Fri.	24	Regulation of Gene expression	16, 17
Mon.	27	Recombinant DNA technology	19
Wed., Mar.	1	Recombinant DNA technology (cont)	19
Fri.	3	Genomics/Bioinformatics	20
Mon.	6	Model Organsims/Mutational analysis	21
Weds.	8	Population Genetics	25
Fri.	10	Population/Evolutionary Genetics	25,26
Mon. March	13	FINAL EXAM (1:30-3:18PM)	

MOLECULAR GENETICS H500 HONORS GENERAL GENETICS Autumn 2005

Lecture: MWF 2:30 - 3:48, Room BI 676
Lab: R 9:30 - 12:18 or 1:30 - 4:18, Room BI 332

Instructor:

Prof. Mark Seeger

125A Rightmire Hall

Tel: 292-5106 (office)
292-5107 (lab)
seeger.9@osu.edu

Graduate Student Assistants:

Laura Carver
Casey Jowdy

carver.48@osu.edu; 2-5107
jowdy.1@osu.edu; 2-5107

Course description and objectives:

During the quarter we will explore the many facets of modern genetics. An over-riding theme of the course is that while genetics is an intrinsically interesting subject on its own, genetics' real value is as a powerful tool with which to study complex biological processes. We will focus our attention on five major areas of genetics:

1. Transmission genetics of eukaryotes
2. Molecular genetics - recombinant DNA
3. Genomics
4. Regulation of gene expression
5. Quantitative and population genetics

Basic understanding of these various areas of genetics will be developed through readings from the textbook and lectures. We will further extend and develop this basic understanding of genetics in two ways. First, we will explore the genetics principles that we are learning in the classroom through hands on laboratory experimentation. The collection of genetic data, analysis and interpretation of data, and written presentation of experiments and conclusions in lab reports will further enhance our understanding of textbook principles. Second, you will be reading a book during the second half of the quarter that examines the contribution of genetics to important aspects of human life. You will write a brief book review and participate in a class panel discussion of the book.

REQUIRED READING MATERIALS:

"Concepts of Genetics", 8th Edition, by W. Klug, M. Cummings and C. Spencer
Pearson Prentice Hall (ISBN #0-13-191833-8)

Student Handbook and Solutions Manual (ISBN #0-13-149008-7)

COURSE EVALUATION:

Examinations:

There will be a midterm and a final exam. The midterm will be worth 70 points. The final exam will be worth 90 points and will include a "comprehensive" component. There will be 8 quizzes over the course of the quarter. They will be worth 20 points each. You will be able to drop your two lowest quiz scores (i.e. only your 6 best quiz scores will count). No make up quizzes will be given. Exams and quizzes may cover material from the textbook, problems, lectures, and from any additional assigned readings.

Note: The final exam **MUST** be taken if one is to receive a grade in the course. University regulations will be adhered to in dealing with absenteeism at final examinations.

Lab Reports:

Lab reports will contribute a potential 95 points to your final grade. You will be turning in 6 lab reports that will range from 10 to 30 points each.

Book Review and Discussion:

You will select a book that discusses important issues in genetics from a list that I will provide. You will write a brief book review and participate in a class panel discussion about the merits of the book. This project will be worth 25 points.

Grades:

Grades will be based on a total of 400 points for the course (160 points from the midterm and final; 120 points from the quizzes; 120 points from lab reports and the book review). The following will serve as a guideline for determining letter grades:

A range: 90 - 100%

B range: 80 - 89%

C range: 70 - 79%

D range: 60 - 69%

Students are expected to abide by the Code of Student Conduct as outlined in the University Student Handbook.

Problem Sets:

Problem solving is an indispensable part of the process of mastering genetic principles and concepts. The textbook has an extensive set of genetics problem and you are strongly encouraged to attempt to work as many problems as possible. A Student Solutions Manual / Study Guide is available for the text. Additional problems will be provided in class.

DISABILITIES AND SPECIAL NEEDS

If you need an accommodation based on the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment we can discuss the course format, anticipate your needs and explore potential accommodations. I rely on the Office for Disability Services for assistance in verifying the need for accommodations and developing accommodation strategies. If you have not previously contacted the Office for disability Services, I encourage you to do so.

LECTURE SCHEDULE AND CHAPTER ASSIGNMENTS

(Please note: Schedule subject to change)

Date	Period	Topic	Chapter
Wed (9/21)	1	Introduction	1
Fri (9/23)	2	Mitosis, Meiosis and the Cell Cycle	2
Mon (9/26)	3	Mendelian Genetics	3
Wed (9/28)	4	Mendelian Genetics	3, 4
Fri (9/30)	5	Mendelian Genetics (QUIZ 1-3)	4
Mon (10/3)	6	Quantitative Genetics	24
Wed (10/5)	7	Chromosome Mapping	5
Fri (10/7)	8	Chromosome Mapping (QUIZ 4, 24)	5
Mon (10/10)	9	DNA Structure	10
Wed (10/12)	10	DNA Analysis and Replication	10, 11
Fri (10/14)	11	DNA Replication (QUIZ 5, 10)	11
Mon (10/17)	12	DNA Organization in Chromosomes	12
Wed (10/19)	13	The Genetic Code (QUIZ 11, 12)	13
Fri (10/21)	14	Transcription and Translation	13, 14
Mon (10/24)	15	MIDTERM (1-5, 10-12, 24)	
Wed (10/26)	16	Translation and Proteins	14
Fri (10/28)	17	Mutation and Repair	15
Mon (10/31)	18	Gene Regulation in Prokaryotes	16
Wed (11/2)	19	Gene Regulation in Prokaryotes (QUIZ 13, 14, 15)	16
Fri (11/4)	20	Eukaryotic Gene Expression	17
Mon (11/7)	21	Recombinant DNA	19
Wed (11/9)	22	Genomics (QUIZ 16, 17)	20
Fri (11/11)		Veterans Day - No Class	
Mon (11/14)	23	Genomics and Applications	20, 22
Wed (11/16)	24	Applications and Ethics of Biotechnology	22
Fri (11/18)	25	Variation in Chromosomes (QUIZ 19, 20, 22)	7, 8
Mon (11/21)	26	Cell Cycle Regulation and Cancer	18
Wed (11/23)			
Fri (11/24)		Thanksgiving Holiday	
Mon (11/29)	27	Population Genetics	25
Wed (12/1)	28	Evolutionary Genetics (QUIZ 7, 8, 18)	26
Fri (12/3)	29	Conservation Genetics	27
Thurs (12/8)	11:30-1:18	Final Exam (Chapters 7, 8, 13-19, 20, 22, 25-27)	

Molecular Genetics 605

Winter, 2006

Lecture: M, W, F. 9:30-10:18; Boyd Labs (BL) 311

Syllabus

<u>Date</u>	<u>Chapter</u>	<u>Topic</u>
01/02	<i>holiday</i>	<i>no class</i>
01/04	1	Introduction to genetics
01/06		
01/09	2	Patterns of inheritance
01/11		
01/13	3	Chromosomes
01/16	<i>holiday</i>	<i>no class</i>
01/18		
01/20	Midterm exam I (chapters 1, 2, 3)	
01/23	6	Gene to phenotype
01/25		
01/27		
01/30	11	Recombinant DNA
02/01		
02/03		
02/06		
02/08	Midterm exam II (chapters 6, 11)	
02/10	4	Mapping
02/13		
02/15		
02/17	12	Genomics
02/20		
02/22		
02/24	Midterm exam III (chapters 4, 12)	
02/27	19	Population Genetics
03/01		
03/03		
03/06	16	Dissecting gene function
03/08		
03/10		
03/15	Final exam, 9:30 am (comprehensive: chapters 1-4, 6, 11-12, 16, 19)	

Course Personnel

Instructor: Helen Chamberlin email: chamberlin.27@osu.edu ph: 688-0043
Office hours: Thursdays 11:00-1:00
Office: 938 Biological Sciences Building

<u>Teaching Assistants</u>	<u>email</u>	<u>ph: 688-0112</u>	<u>recitation section</u>
Ryan Johnson	johnson.1424@osu.edu		T 9:30
Vandana Rajakumar	rajakumar.1@osu.edu		T 10:30
Kristin Armstrong	armstrong.282@osu.edu		T 11:30

TA office hours by appointment

Textbook

An Introduction to Genetic Analysis 8th ed. (2005) Griffiths et al. WH Freeman and Company. A Solutions Manual for problems in the book is also available (optional text). A companion website is at <http://www.whfreeman.com/iga/>. An earlier version of the book (7th edition) can serve as an additional reference and is available electronically from the NCBI: <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?call=bv.View..ShowSection&rid=iga>
Copies of both the textbook and the solutions manual are available on reserve in the Biological Sciences/Pharmacy Library.

Course website

The course has a Carmen-interfaced website. Class notes, problem sets, sample exams etc. are available for download here. To log on, go to <https://carmen.osu.edu/> Use your OSU email account name and password. Although you can download from the site, please turn any assignments in at class on the assigned date (rather than electronically through Carmen or email).

Evaluation

Your final grade will be based on a total possible of 650 points. 500 points are derived from exams, 100 points are derived from assignments and participation in the lecture, and 50 points are derived from problem sets and participation in the recitation sessions.

Midterm I	Fri. Jan. 20	Chapters 1, 2, 3	100 pts
Midterm II	Wed. Feb. 8	Chapters 6, 11	100 pts
Midterm III	Fri. Feb. 24	Chapters 4, 12	100 pts
Final	Wed. Mar. 15	All chapters above + 16, 19	200 pts
Class participation			100 pts
Recitation sections			50 pts

Class participation:

* It is expected that you attend the lecture, and that you participate in the learning activities in class. It is expected that you are respectful of others in the class. You will be excused from class for the rest of the period if you work on materials for other classes, read material unrelated to the class, talk on the phone, text message, play video games, sleep, or otherwise distract others or disengage from the class.

* Periodically there will be an in-class activity or assignment which will result in your handing in your work with your name on it. Credit will typically be awarded on an all-or-none basis. You will be permitted to miss one out of the total possible activities without penalty. There will be an indeterminate number of these activities, and they generally will not be announced in advance.

* In order to participate in the class, you will need to have paper and a pencil or pen each time. Sometimes you will find a calculator useful.

Recitation sections:

* It is expected that you work the problems in the problem sets, that you attend your assigned recitation section, and that you participate in the recitation activities. More about the recitation section will be covered in the handout from your recitation section.

Exams:

* Exams are your opportunity to demonstrate what you have learned. Any material covered in class, in the textbook, or in other reading assignments may be on the exam.

* University regulations will be adhered to with regard to absenteeism at exams. No opportunity to make-up points associated with the exam will be given unless a valid, documented, and unavoidable event befalls the student. Documentation of a valid excuse must be presented within 5 days of the original exam. No extra make-up exam will be given. However, students with a valid, documented, and excused absence will be eligible to make up the missed exam by achieving up to 300 points on their final exam (i.e., for these students, the score on the final exam will be multiplied by 1.5 to make up for the missed exam).

* Exams will include multiple choice, short answer, and problem solving questions. The exams are closed book, closed notes, except that each student will be permitted **one** 3x5 notecard of notes to use in the exam. Calculators are acceptable (and recommended); #2 pencils will be needed.

* Talking with each other or using cell phones, pagers or other messaging devices during the exam is not permitted. Failure to adhere to these rules is a violation of academic integrity, and will be dealt with accordingly (see the Ohio State University's Code of Student Conduct (Section 3335-23-04)).

* If you disagree with the grading of any exam, you can request a re-grade by submitting a written explanation, along with the graded exam, within seven calendar days of the date the exam is returned to the class. Any exams submitted for a re-grade will be re-graded in their entirety.

* If the class average on a particular midterm exam is unusually low, the scores on that exam will be normalized so that no one exam is weighted more than the others.

Academic integrity

* It is expected that the work you hand in at class, recitation, or as part of an exam is your own work. Failure to adhere to these rules is a violation of academic integrity, and will be dealt with accordingly (see the Ohio State University's Code of Student Conduct (Section 3335-23-04)).

* Exams: See exam format, above. Exams are closed book, closed notes, with the exception that each student may prepare, for his or her own use only, one 3x5 notecard of notes. Talking with each other or using phones, pagers or other messaging devices during the exams is not permitted.

* Other assignments: For take-home or in-class assignments including problem sets, I encourage you to discuss the problems with other students in the class, and any other resources (papers, books, internet, etc.) may be consulted. However, each student must compose and write up the answers her- or himself. All assignments must be written in the student's own words. Direct transcriptions from other's homework assignments, books or other resources - even if properly attributed - are not acceptable.

ADA compliance statement

* Any student who feels he or she may need an accommodation based on the impact of a disability is invited to contact the instructor privately to discuss his or her specific needs. In general, you are invited to contact the Office for Disability Services at (614) 292-3307, or visit 150 Pomerene Hall, to coordinate appropriate accommodations for a disability.

Class goals

Students who successfully complete this course will be able to:

Use and understand standard notation and methods for tracking gene variants (alleles) from parents to offspring over several generations.

Use the rules of probability to predict the outcome of genetic crosses.

Develop genetic hypotheses in response to sets of data, and use statistical methods to test those hypotheses.

Define and explain the relationships among the structural (genotype, DNA sequence, chromatin, chromosome, mRNA, protein) and functional (phenotype, biochemistry, morphology, anatomy, physiology) features of an organism as they relate to genetics and genomics.

Symbolically represent and predict the behavior of genes in a population, and how they will behave in response to external conditions including migration, selection, and non-random breeding.

Explain the basic set of tools and techniques used to detect and manipulate DNA, RNA, and proteins in vitro and in vivo in the laboratory, and demonstrate an understanding of appropriate applications for each.

Use double mutant analysis to interpret the functional relationship between genes. Integrate genetic and biological data into pathways, and interpret them in the context of biochemical or cell-biological processes.

Use genetic data to interpret the impact different DNA changes (alleles) have on gene function. Reciprocally, integrate genetic, biochemical, and cell-biological data to interpret the normal function of a gene.

Develop chromosome maps by interpreting data from genetic crosses. These data include directly observable phenotypes as well as DNA sequence polymorphisms.

Explain how ethical standards impact how scientists do genetic experiments and how society utilizes genetic data.

MOLECULAR GENETICS 606
MOLECULAR GENETICS II
Spring 2005
GENERAL INFORMATION

Lectures:

MWF 11:30 a.m. Room 1188 Postle Hall.

Recitations:

Tuesday 9:30 BI 0676

Tuesday 10:30 BI 0676

Tuesday 11:30 BI 0676

Course Objectives:

Molecular Genetics 606 is part of the required core sequence for undergraduate students in the Department of Molecular Genetics, but it is also suitable for other students in the biological sciences who have had an introductory biochemistry course. The objective of this course is to continue to introduce students to the concepts and methods of modern genetics, and to help students learn to think like geneticists. All aspects of genetics are covered, including molecular, cellular, organismal, evolutionary, and population genetics. However, this course emphasizes the combined use of molecular and transmission genetic methods to solve basic problems.

Prerequisites:

Biochemistry 511 or equivalent, and Math 150.

Lecturers:

Dr. David M. Bisaro

201 Rightmire Hall

292-3281

bisaro.1@osu.edu

Office hours: by appointment

Dr. Susan E. Cole

282 Biological Sciences Bldg.

292-1914

cole.354@osu.edu

Office hours: Tuesdays 11:00-1:00

Guest Lecturer:

Dr. Paul Fuerst

386 Aronoff Lab, 318 W. 12th.

292-6403

fuerst.1@osu.edu

Office hours: by appointment

(Dr. Fuerst will deliver lectures on population genetics)

Graduate Teaching Associates: Primary contacts.

Emily Wolke

209 Biological Sciences Building

247-8131

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Priya Raja

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Cody Buchmann

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TA Office hours are by appointment only

Text:

Griffiths, A.J.F., Wessler, S.R., Lewontin, R.C., Gelbart, W.M., Suzuki, D.T., and Miller, J.H. *"Introduction to Genetic Analysis"* (2005) 8th edition. W.H. Freeman and Co., New York.

This is a required text. Readings in the text will for the most part correlate with the lectures.

Supplementary Reading:

It is often helpful to study material from several different sources; each will give a slightly different perspective, and different sources will emphasize different aspects of the subject. The following textbooks will give you some additional background (not required for the course):

General texts with practice problems:

Russell, P.J. (1996) "Genetics", 4th edition. Harper Collins Publishers.

Tamarin, R.H. (1996) "Principles of Genetics", 5th edition. Wm. C. Brown Publishers.

For more information on molecular genetics:

Lewin, B. (2004) "Genes VIII". Pearson Prentice Hall.

Course website

<http://class.osu.edu>

Examinations, Recitations and Grading:

The course grade will be based on two midterms and one final examination, and points acquired from recitation exercises (450 possible points).

RECITATIONS: Weekly problem sets will be assigned and should be completed in full and handed in at the beginning of the recitation. Problem sets and questions that have arisen during lectures will then be reviewed during the recitation session. One or two problems from each assignment will be selected for grading, and your weekly point total will depend on your performance on those problems. Recitation assignments will be worth 50 points over the course of the quarter (approximately 5 points per week).

Many of the basic laws of genetics are mathematical in nature; so using these laws and making predictions based on them often requires mathematical manipulations. To pass this course, you only need algebra and some elementary probability theory (which we will teach you). The best way to ensure that you understand genetics is to solve problems that require you to apply what you are learning. Problems will also constitute a large portion of the questions on some exams. Therefore it is in your best interests to complete all assigned problems and participate fully during recitation sections.

EXAMS: There will be two midterms and one final worth 100, 100, and 200 points, respectively (total of 400 points). The final examination will be comprehensive, with approximately 60 points each covering material from each of the previous midterms and

80 points from the last portion of the course (covering material on which you will not have been previously tested). No makeup midterm examinations will be given. If you miss a midterm for any reason, the corresponding segment of the comprehensive final exam will be used to calculate a midterm grade (e.g. $60 \times 1.66 = 100$) and will also contribute 60 points to your final exam score. You must not miss more than one midterm; this will result in an automatic E grade for the course. If you miss the final exam, you will be given an Incomplete. You will be allowed to make up the Incomplete grade only after presenting documentary proof that you missed the exam because of severe illness. Otherwise, your grade will be based on points received, counting the final exam as zero. The midterm exams are tentatively scheduled (see syllabus). The exams will be held during class time in the regular lecture room.

The course grade will be based on a modified curve, fitted to the total point scores for the course. Plus/minus grades will be given.

TENTATIVE LECTURE SCHEDULE

Dr. Cole's Lectures

Date	Chapter	Topic
Mar. 28	7	DNA Structure
Mar. 30	7	DNA replication
April 1	8	RNA and RNA transcription
April 4	8	RNA transcription and processing
April 6	9	Protein structure and genetic code
April 8	9	Protein translation
April 11	10	Regulation of Transcription
April 13	10	Regulation of Transcription II Prokaryotes
April 15	10	Regulation of Transcription III Eukaryotes
April 18	17	Cancer and Genetics
April 20	17	Cancer and Genetics

April 22-----FIRST MIDTERM

Dr. Bisaro's Lectures:

Date	Chapter	Topic
April 25	14	Point mutations
April 27	14	Mutation mechanisms
April 29	14	Repair mechanisms
May 2	14	Homologous recombination and DS Break Repair
May 4	15	Polyploidy
May 6	15	Aneuploidy
May 9	15	Changes in chromosome structure
May 11	15	Changes in chromosome structure
May 13	5	Bacterial and viral genetics
May 16	5	Bacterial and viral genetics
May 18	13	Transposable genetic elements
May 20	13	Transposable elements in prokaryotes
May 23	13	Transposable elements in eukaryotes

May 25-----SECOND MIDTERM

Dr. Fuerst's Lectures:

Date	Chapter	Topic
May 27	21	Evolutionary genetics
May 30 - Memorial Day Holiday Observed		
June 1	21	Evolutionary genetics
June 3	21	Evolutionary genetics

FINAL EXAM LOCATION AND TIME:

Wednesday, June 8

11:30 AM to 1:18 PM

1188 Postle Hall

Molecular Genetics 607, Cell Biology Autumn Quarter, 2005

Lectures: MWF 1:30 pm, Room 111 Parks Hall

Instructors: Drs. Paul Herman and Hay-Oak Park

Text: Alberts et al., Fourth Edition, "Molecular Biology of the Cell"

<u>Date</u>	<u>Lecturer</u>	<u>Topics Covered</u>	<u>Reading Assignment</u>
Sept. 21 (W)	Herman	Overview, Membrane Structure	Chapter 10
Sept. 23 (F)	Herman	Membrane Transport	Chapter 11
Sept. 26 (M)	Herman	Membrane Transport	
Sept. 28 (W)	Herman	Membrane Transport	
Sept. 30 (F)	Herman	Intracellular Compartments	Chapter 12
Oct. 3 (M)	Herman	Intracellular Compartments	
Oct. 5 (W)	Herman	Intracellular Compartments	
Oct. 7 (F)	Herman	Vesicular Traffic	Chapter 13
Oct. 10 (M)	Herman	Vesicular Traffic	
Oct. 12 (W)	Herman	Vesicular Traffic	
Oct. 14 (F)	Herman	Cell Signaling	Chapter 15
Oct. 17 (M)	Herman	Cell Signaling	
Oct. 19 (W)	Herman	Cell Signaling	
Oct. 21 (F)	Herman	Cell Signaling	
Oct. 24 (M)	Herman	Review Session	
Oct. 25 (T)	Herman	MID-TERM	6:30 - 8:30 p.m.
Oct. 26 (W)	Park	Cell Division Cycle	Chapter 17
Oct. 28 (F)	Park	Cell Division Cycle	
Oct. 31 (M)	Park	Cell Division Cycle	
Nov. 2 (W)	Park	Cell Division Cycle	
Nov. 4 (F)	Park	Cell Division Cycle	
Nov. 7 (M)	Park	Cell Division Cycle	Chapter 24
Nov. 9 (W)	Park	Cancer	Chapter 16
Nov. 11 (F)		No Class (Veterans Day)	
Nov. 14 (M)	Park	Cytoskeleton	
Nov. 16 (W)	Park	Cytoskeleton	
Nov. 18 (F)	Park	Cytoskeleton	
Nov. 21 (M)	Park	Cytoskeleton	
Nov. 23 (W)	Park	Cytoskeleton	
Nov. 25 (F)		No Class (Thanksgiving)	
Nov. 28 (M)	Park	Mechanics of Cell Division	Chapter 18

Nov. 30 (W)

Park

Mechanics of Cell Division

Dec. 2 (F)

Park

Review Session

Dec. 7 (W)

Park

FINAL EXAM 11:30 am - 1:18 pm (111 Parks)

Molecular Genetics 608

Genes and Development

Winter 2006. M.W.F. 10:30 AM. 262 Hopkins Hall.

Instructors

Russell Hill

Phone: 614-688-0006
Office: 963 Biological Sciences Building.
email: hill.531@osu.edu
office hours: Thursdays, 4:00-5:00 PM.

Michael Weinstein

Phone: 614-688-0164
Office: 216A Biological Sciences Building.
email: weinstein.41@osu.edu
office hours: To be determined.

Textbook. Gilbert, Scott, F. Developmental Biology, Seventh Edition, 2003. Sinauer Associates. ISBN 0-87893-258-8. Copies are on reserve in the BioSci library.

Lectures. 10:30-11:18 AM. M.W.F. January 4 through March 10, 2005.

Teaching Assistants:

Maria Festing festing.1@osu.edu
Xin Li li.588@osu.edu

Exams.

Midterm 1.	Jan 26, 2006.	6:30-8:30 PM	107 Parks Hall
Midterm 2.	Feb 21, 2006.	6:30-8:30 PM	107 Parks Hall
Final.	Monday, March 13	9:30-11:18AM	262 Hopkins Hall

Make up exam for the midterms will be at 6:30 AM the following day.

Problem sets.

Problem set 1.	Distributed Feb 8	Due Feb 13	TA: Festing
Problem set 2	Distributed Feb 27	Due Mar 6	TA: Li

The problem sets will be based upon scientific papers from the literature and will ask you to answer questions about the papers. In your answers, you may use reagent names and technical terms without citing the source and without quotations. However, you may not answer questions by transcribing intact sentences from the paper (even with quotations).

Course Web Site.

Copies of the lecture slides are available as PDFs at WebCT, <http://class.osu.edu>
Note: The PDF files are NOT designed to be a substitute for attending lecture.

Jan. 3, 2006.

Syllabus for MG608.**Winter, 2006.**

Date	Item	Lecture Topic	Instructor
I. Basic Concepts in Developmental Biology.			
Jan. 4	Class 1	Basic concepts in developmental biology.	Hill.
Jan. 6	Class 2	Modes of cell fate specification.	Hill.
Jan. 9	Class 3	Differential gene expression.	Hill.
Jan. 11	Class 4	<i>C. elegans</i> : Genetic analysis of development.	Hill.
Jan. 13	Class 5	Mechanisms of signal transduction.	Hill.
II. Early Embryogenesis and Axis formation.			
Jan. 16	No Class	Martin Luther King Day.	
Jan. 18	Class 6	Where do genes act? Chimeras, mosaics and epistasis.	Hill.
Jan. 20	Class 7	Drosophila I: Oogenesis and maternal genes.	Hill.
Jan. 23	Class 8	Drosophila II: Gap and pair rule genes.	Hill.
Jan. 25	Class 9	Drosophila III: Homeotic selector genes.	Hill.
Jan. 26	Midterm 1		Hill.
Jan. 27	Class 10	Xenopus I.	El-Hodiri.
Jan. 30	Class 11	Xenopus II.	El-Hodiri.
Feb. 1	Class 12	Xenopus III.	Weinstein.
Feb. 3	Class 13	Xenopus IV.	Weinstein.
Feb. 6	Class 14	Early development of mammals.	Weinstein.
Feb. 8	Class 15	A-P axis formation in mammals.	Weinstein.
Feb. 10	Class 16	Hox genes and a/p patterning.	Weinstein.
III. Stem cells and cell type specification.			
Feb. 13	Class 17	Embryonic Stem cells and cloning.	Weinstein.
Feb. 15	Class 18	Gene disruption in mice.	Weinstein.
Feb. 17	Class 19	Imprinting and Epigenetics.	Weinstein.
Feb. 21	Midterm 2		Weinstein.
Feb. 20	Class 20	Hematopoiesis I.	Hill.
Feb. 22	Class 21	Hematopoiesis II.	Hill.
Feb. 24	Class 22	Wnt signaling and endoderm development I.	Hill.
Feb. 27	Class 23	Wnt signaling and endoderm development II.	Hill.
Mar. 1	Class 24	Wnt signaling and endoderm development III.	Hill.
IV. Organogenesis.			
Mar. 3	Class 25	Sex determination I.	Hill.
Mar. 6	Class 26	Sex determination II.	Hill.
Mar. 8	Class 27	Limb development I.	Weinstein.
Mar. 10	Class 28	Limb development II.	Weinstein.
Mar. 13		Final Exam 9:30-11:18 AM.	Hill.

Jan. 3, 2006.

MG640
Genetic Basis of Evolution

Spring 2005

335 Campbell Hall
MWF 1:30 - 2:48

Instructor: Paul Fuerst
292-6403 / fuerst.1@osu.edu
office : 386 Aronoff Laboratory - hours 11:30-12:30 MWF

TA: Jennifer Carmichael
292-4570 / carmichael.45@osu.edu
office: 394 Aronoff Laboratory

Course description: Molecular Genetics 640 reviews the areas of Evolutionary and Population Genetics. Population genetics is concerned with the processes that affect the patterns of genetic variation within a species, and therefore describes how evolutionary changes occur. Population genetic mechanisms provide both applied and theoretical contributions to many fields, including ecology, systematics, agriculture, wildlife management and conservation biology. Types of genetic variation that have been used by geneticists to study patterns and changes in populations will be surveyed. The course develops some of the basic algebraic foundations for the genetic study of populations. The forces that change allele frequencies within populations will be described. The evaluation of inbreeding patterns and the effect of inbreeding on populations will be discussed. Methods of studying the structure of natural populations will be examined. The processes of molecular change (in both amino acid sequences and nucleic acid sequences) during evolution will be reviewed. The use of new molecular methods to examine quantitative variation, and a brief overview of the theory of quantitative genetics will also be discussed.

Final Exam: Scheduled date and time: Wednesday June 8, 1:30 pm - 3:18 pm

Textbook: Philip W. Hedrick. Genetics of Populations (3rd edition), Jones and Bartlett. Additional readings will be provided on the web site for the course.

Grades: Final grades will combine evaluations by traditional exams, problems sets and material from supplemental reading. Grades are based on three examinations, each worth 20% of the final grade, and five problem sets, each worth 8% of final grade.

Exams: Each exam will include short answer questions, problems and possibly one longer questions. You will be required to understand the facts, and to be able to apply this knowledge

to the problems. The three exams may also include some material which will be answered as take-home material. Students are expected to be present for the exams. Make-ups will be allowed only for valid excuses with documentation. Make-ups will normally be different from the regular examination.

Problem Sets: Problems will be assigned approximately every two weeks, beginning in the middle of week 1. Students are welcome to discuss the problems, but the work turned in by each individual should represent the final product that student (unless the instructions for a problem indicate otherwise). I encourage students to visit me during office hours, or at arranged times, to discuss any questions you may have about the problem sets. Unless otherwise approved, problem sets will be expected to be turned in on the date they are due. Late problems sets will be docked 20% of their value for each lecture that occurs after they are due.

Participation: I encourage students to ask questions during class about topics being considered. I especially encourage students to visit me during office hours, or as arranged, to discuss any topic, but especially if you have question about problems. Papers from the primary literature will be regularly assigned as supplemental reading, and will be the basis of in class discussion.

Course notes and supplemental readings can be accessed at:
<http://www.biosci.ohio-state.edu/~p fuerst/courses/index.html>

Other important dates:

- Apr 15 (Friday) (other than filing your taxes): Last day to drop the course without permission. Last day to drop a course or withdraw from the University using an OSU Withdrawal Form, without having a "W" on your permanent record.
- May 13 (Friday)- Last day to drop a course or withdraw from Spring Quarter without petitioning; a "W" will appear on your permanent record.
- May 30 (Monday) - Memorial Day - no classes
- June 4 (Friday) - Last day of regularly scheduled classes:(F)

STUDENTS WITH DISABILITIES: Any student who feels he or she may need an accommodation because of a physical or learning disability should contact Dr. Fuerst privately to discuss your particular needs. Students should be registered with the Office for Disability Services (ODS, 614-292-3307) in 150 Pomerene Hall and should contact that office to arrange for specific accommodations. Please contact Dr. Fuerst for completion of ODS proctor sheets.

ACADEMIC MISCONDUCT: All instructional faculty and staff are required by Ohio State University to forward all cases of suspected cheating to the Committee on Academic Misconduct. Any form of academic misconduct, no matter how seemingly small, will not be tolerated in this course. Unless indicated on an assignment, problems sets and take-home material are expected to be the ultimate product of the student handing in the assignment. Students are expected to adhere to the university's honor code or else suffer the consequences.

Lecture schedule: (TENTATIVE)

(be sure to read chapter 1. This chapter contains background material on genetics. I will assume all students are familiar with this general material; if you are not familiar with some aspects, please see me and I will suggest some supplemental reading material).

Week 1- Types of Genetic Variation (chapter 1-2 & additional readings)
morphological; immunological;

Week 2- Simple algebraic models of population genetics (Chapter 2 and Supplemental readings)
Hardy-Weinberg model

Week 3- Types of Genetic Variation (chapter 2, 10 & additional readings) protein; nucleic acid
heterozygosity and linkage disequilibrium

Midterm 1 - Friday April 22

Weeks 4-5 - changes in allele frequency (chapter 3, 4, 6, 7 and supplemental readings)
selection
mutation
random drift

Weeks 6-7 - relaxation of the assumptions of the Hardy-Weinberg Model (chapter 5, 6 and 9)
inbreeding
population structure; migration

Midterm 2 - Friday May 13

Weeks 8- 9 - Molecular Mechanisms of Evolution (chapter 8, 11 and supplemental reading)
patterns of variation; gene duplication
molecular phylogenies

Week 10 - complex traits - supplemental readings

Final Examination : Wed, June 9 1:30 am - 3:18 pm with additional take home component

Additional readings (tentative):

Week one: variation

Wunderle, Joseph M., Jr. 1981 An Analysis of a Morph Ratio Cline in the Bananaquit (*Coereba flaveola*) on Grenada, West Indies *Evolution*, Vol. 35, No. 2. (Mar.), pp. 333-344.

Theron, E., Hawkins, K., Bermingham, E., Ricklefs, R.E., and Mundy, N.I. (2001). The molecular basis of an avian plumage polymorphism in the wild: a melanocortin-1-receptor point mutation is perfectly associated with the melanic plumage morph of the bananaquit, *Coereba flaveola*. *Current Biology* 11, 550–557.

Brakefield, P. M. & French, V. 1999. Butterfly wings: the evolution of development of colour patterns. *BioEssays* 21, 391-401.

E J Parra, R A Kittles & M D Shriver (2004) Implications of correlations between skin color and genetic ancestry for biomedical research *Nature Genetics* 36, S54 - S60

Week 2: models

Stefansson, H. et al. (2005) A common inversion under selection in Europeans. *Nature Genetics* 37, 129 - 137.

Anderson WW, et al. 1991. Four Decades of Inversion Polymorphism in *Drosophila pseudoobscura*. *Proc. Nat. Acad. Sci. USA* 88: 10367-10371

Hardy, G. H. 1908 Mendelian Proportions in a Mixed Population. *Science* 28: 49-50.

Crow, J.F. (2001) The beanbag lives on. *Nature* 409, 771

Haldane, J. B. S. (1964) A defence of beanbag genetics. *Persp. Biol. Med.* 7, 343-359.

Week 3: variation in proteins and nucleic acids

Driscoll, C.A., M. Menotti-Raymond, G. Nelson, D. Goldstein, and S. J. O'Brien. Genomic Microsatellites as Evolutionary Chronometers: A Test in Wild Cats. *Genome Research* 12: 414-423

Cargill M, Altshuler D, Ireland J, et al. 1999. Characterization of single-nucleotide polymorphisms in coding regions of human genes *Nature Genetics* 22: 231-238

Week 4: Selection

Masters BS, Hicks BG, Johnson LS, et al. 2003 Genotype and extra-pair paternity in the house wren: a rare-male effect? *Proc Roy Soc Lond B Bio* 270: 1393-1397

Jacob S, McClintock MK, Zelano B, Ober C. 2002. Paternally inherited HLA alleles are associated with women's choice of male odor. *Nature Genetics* 30: 175-179

Penn DJ, Damjanovich K, Potts WK. 2002 .MHC heterozygosity confers a selective advantage against multiple-strain infections. *Proc. Nat. Acad. Sci. USA* 99: 11260-11264

Akey JM, Eberle MA, Rieder MJ, Carlson CS, Shriver MD, Nickerson DA, Kruglyak L. 2004 Population history and natural selection shape patterns of genetic variation in 132 genes. *PLOS Biology* 2: 1591-1599

Week 5: Mutation

Kayser, M. 2000. Characteristics and Frequency of Germline Mutations at Microsatellite Loci from the Human Y Chromosome, as Revealed by Direct Observation in Father/Son Pairs. *Am. J. Hum. Genet.* 66:1580-1588.

Neel JV, Satoh C, Goriki K, Fujita M, Takahashi N, Asakawa Ji, Hazama R. 1986. The Rate with Which Spontaneous Mutation Alters the Electrophoretic Mobility of Polypeptides. *Proc. Nat. Acad. Sci. USA* 83: 389-393

Week 6 Population structure and Inbreeding:

Parker H.G. et al. (2004). Genetic Structure of the Purebred Domestic Dog. *Science* 304: 1160-1164

Bittles,AH 2003, Consanguineous marriage and childhood health *Developmental Medicine & Child Neurology* 45: 571-576.

Crnokrak, P. & D.A. Roff (1999) Inbreeding depression in the wild. *Heredity* 83 260-270

Week 7: Migration

Seielstad, M.T., E. Minch & L.L. Cavalli-Sforza. (1998). Genetic evidence for a higher female migration rate in humans. *Nature Genetics* 20: 278-280.

Schwartz, M.K., et al. (2002) DNA reveals high dispersal synchronizing the population dynamics of Canada lynx. *Nature* 415: 520-522.

Week 8-9: molecular changes

Pergams ORW, Barnes WM, Nyberg D. 2003. Rapid change in mouse mitochondrial DNA. *Nature* 423: 397-397

King, MC and AC Wilson. 1975. Evolution at two levels in humans and chimpanzees. *Science* 188: 107-116.

Hedges SB, Blair JE, Venturi ML, et al. 2004. A molecular timescale of eukaryote evolution and the rise of complex multicellular life. *BMC Evol Biol* 4: art. no. 2

Wildman D.E. et al. 2003. Implications of natural selection in shaping 99.4% nonsynonymous DNA identity between humans and chimpanzees: Enlarging genus *Homo*. *Proc. Nat. Acad. Sci. USA* 100: 7181–7188.

Korber, B., et al. 2000. Timing the Ancestor of the HIV-1 Pandemic Strains. *Science* 288: 1789-1796.

Week 10: complex traits

Porter M.L. and K.A. Crandall. 2003. Lost along the way: the significance of evolution in reverse. *Trends in Ecology and Evolution* 18: 541-547.

Gu, J. and X. Gu. 2003. Induced gene expression in human brain after the split from chimpanzee. *Trends in Genetics* 19: 63-65

Fondon, J.W. III and H.R. Garner. 2004. Molecular origins of rapid and continuous morphological evolution. *Proc. Nat. Acad. Sci. USA* 101: 18058-18063

PHARMACOLOGY 600
(Introduction to General Pharmacology)
Spring 2006
Call Number:

*WebCT Home Page: <http://classroom.med.ohio-state.edu>

The Ohio State University
College of Medicine and Public Health
Department of Pharmacology

Course Master:
****Gopi A. Tejwani, Ph.D.**
292-7092; 5072 Graves Hall
E-mail:Tejwani.1@osu.edu

<u>DATES</u>	<u>TITLE</u>	<u>CHAPTER</u>
March 27	Introduction, Pharmacokinetics	
March 29	Pharmacokinetics & Drug Metabolism	1
March 31	Drug Receptors and Pharmacodynamics	1
April 3	Autonomic Nervous System & Cholinergic Agonists	2
April 5	Cholinergic Antagonists	3,4
April 7	Adrenergic Agonists	5
April 10	Adrenergic Antagonists	6
April 12	Autacoids and Autacoid Antagonists, Drugs Affecting the Respiratory System	7 42,27
April 14	FIRST MID-TERM EXAMINATION	
April 17	Treatment of Neurodegenerative Diseases, Antidepressant Drugs	8,12
April 19	Anxiolytic and Hypnotic Drugs	9
April 21	CNS Stimulants	10
April 24	Anesthetics	11
April 26	Alcohols	Notes
April 28	Neuroleptic Drugs	13
May 1	Opioid Analgesics and Antagonists	14
May 3	Drugs Used to Treat Epilepsy	15
May 5	Anti-Inflammatory Drugs	41
May 8	SECOND MID-TERM EXAMINATION	
May 10	Treatment of Heart Failure	16
May 12	Antiarrhythmic Drugs	17
May 15	Antianginal Drugs, Antihyperlipidemics Drugs	18,21
May 17	Antihypertensive Drugs, Diuretic Drugs	19,22
May 19	Drugs Affecting Blood	20
May 22	Insulin and Oral Hypoglycemic Drugs	24
May 24	Estrogens, Androgens & Adrenocorticosteroids	25,26
May 26	Principles of Antimicrobial Therapy	30
May 29	Memorial Day Holiday- No classes	
May 31	Anticancer Drugs	39
June 2	Principles of Toxicology, Poisons & Antidotes	Notes
June 2	<u>Last day to submit work done for extra credit</u>	
June 7	FINAL EXAMINATION (Wednesday 9:30 a.m. to 11:18 a.m.)	

TEXT BOOK: *Lippincott's Illustrated Reviews: Pharmacology* by Howland et. al.
ISBN Number: 0-7817-4118-1. Third edition, 2006, (available at LWW.com).

TIME: 9:30 to 10:18 A.M., Monday, Wednesday and Friday
CLASSROOM: 107 Hamilton Hall, 1945 Neil Avenue

* Instructions for students to log in:

Direct your URL to: <http://classroom.med.ohio-state.edu>

Click on "view all courses" then to "Pharmacology" and then to PHARMCOL 600: General Pharmacology

Enter your OSU Internet Username and password.

For more information about your OSU Internet ID visit <https://acctmgt.service.ohio-state.edu/Password.html>

****Home Page of Dr. Tejwani:**

<http://medicine.osu.edu/pharmacology/1166.cfm>

“PHARMACOLOGY 600” SYLLABUS

Instructor: Gopi A. Tejwani, Ph.D.
(Spring 2005)

1. Course Objectives

This is an introductory course emphasizing the general principles of Pharmacology. The objective of the course is to give a simple overview of the subject to students who have not been exposed to pharmacology previously. We plan to cover the following topics in this course: General aspects of pharmacology, drug effects on the nervous system and neuroeffectors, psychopharmacology, depressants and stimulants of the central nervous system, anesthetics, drugs used in cardiovascular diseases, drug effects on the respiratory tract, drugs that influence metabolic and endocrine functions, antimicrobials, chemotherapy, principles of toxicology, etc.

At the end of the course, we expect the students to be familiar with the names, classification and the mechanism of action of drugs in each of the specific areas of pharmacology mentioned above.

2. Prerequisites

Students having some background in biochemistry and/or physiology can attend this course with the permission of the instructor.

3. Teaching Program

There will be three lectures of 48 minutes duration per week. See the details of schedule on the first page. There is no laboratory work involved in this course.

4. Examination Schedule

The final grade will be decided based on two midterms and one final examination. In each mid-term examination 60 questions will be asked and in the final examination 80 questions will be asked. Questions will be based on the multiple choice answers. The performance in these examinations will be the basis for grades.

Each midterm exam is worth 30% of the final grade and the final exam is worth 40% of the grade. Final exam is comprehensive, however 60 out of 80 questions will be asked from material covered after the 2nd mid-term exam. The remaining 20 questions will come from material covered before the 2nd mid-term exam.

5. A Sample of Exams Available

A copy of all the three examinations held previously has been placed on the Web Site of the course. You are encouraged to take these exams on the web to see your own performance.

6. Lecture notes

PowerPoint presentations of course material are also placed on the Web site of the course.

7. Technical Help to Use the course Web site

If you have a problem logging in to the course web site, please fill out the request for access form that appears after 3 unsuccessful login attempts. For any other technical problem, such as opening up a quiz or exam web page, please send an email to the instructor Teiwani.1@osu.edu.

Browser QuickCheck

- Please run the Browser QuickCheck before beginning to use the WebCT course site. It will automatically verify whether your web browser is a version compatible with WebCT and that is configured properly. (with JavaScript, cookies, and Java enabled)
- To access the Browser Quick Check please go to <http://class.osu.edu> and click on the [Run Browser QuickCheck](#) link.
 - o Note: Please go back to <http://classroom.med.ohio-state.edu> to log in to your WebCT course.

Pop-up Stopper

- Make sure that you have no "pop-up stoppers" running on your system. WebCT uses pop-up windows, **especially in its quizzes**.
 - o Note for Windows XP users: XP Service Pack 2 installs pop-up blockers by default, so when you install the Service Pack you have to change settings for WebCT to work. For more info see the article: [Windows XP Service Pack 2 Pop-up Blocker](#)

System Requirements

Windows:

- Pentium-based computer or equivalent (e.g., Celeron or AMD-K6)
- Windows 9x/Me/NT/2000/XP
- 333 Mhz or higher processor
- 64 MB or better RAM
- 500 MB available hard disk space

Macintosh:

- G3, iMac, or better
- MacOS 8.6 or higher
- 64 MB or better RAM
- 500 MB available hard disk space
- Open Transport installed for Internet connections and the appropriate software (e.g., Remote Access) for modem connections

Regardless whether you have a Windows or a Macintosh computer, you'll need at least a 28.8 modem for off-campus dial-in connections or a 10 Base-T Ethernet adapter card for ResNet connections. Ethernet cards are available at most computer stores.

8. Grading

The grade will be based on the following scores:

180-200	(90% and up)	A
170-179	(85-89%)	A-
160-169	(80-84%)	B+
150-159	(75-79%)	B
140-149	(70-74%)	B-
130-139	(65-69%)	C
Less than 130 or 65%		Fail (E)

Credit for Extra Work:

Extra work can be done for a maximum of 10% of the grade (20 points). The extra work will be graded on a scale of 0-20 points. For the year 2005, the following two options are available to do extra work. **The last date to submit your extra work is June 3, 2005**

- a. Write three multiple-choice questions based on the material presented in **each chapter** in the prescribed textbook. Type questions, provide correct answers and submit your work by email or on a floppy disk.

or

- b. Redraw the figures in **any one chapter** of the prescribed textbook by using PowerPoint. The idea is to see whether you can improve the transmission of information by improving the quality of figures or creating new figures based on the material presented in any particular chapter of the prescribed book. Each chapter can be used by only one or two students working independently on different version of chapter. The selection of each chapter will be done by first come first select basis so you should contact Dr. Tejwani (tejwani.1@osu.edu) early to have a choice. All the PowerPoint illustrations can be submitted by email or on a floppy disk.

9. Attendance

It is expected that students will attend every class. However, attendance will not be taken in the class.

10. How to Reach the Coordinator of the Course

My office is 5072 Graves Hall and my telephone number is 292-7092. Messages can also be kept in the Department of Pharmacology office, room 5072 Graves Hall. Phone 292-8608. Students are welcome to call me or see me personally. My E-mail address is tejwani.1@osu.edu

11. **TEXTBOOK:** Pharmacology (Lippincott's Illustrated Reviews) by M.J. Mycek, R.A. Harvey and P.C. Champe, 2nd edition, 2000, available at Medical Bookstore.

A new edition of this book will be out in May 2005.

PHARMACOLOGY 600D (A Totally Online Course)

(Introduction to General Pharmacology)

Call # 15467-3 Winter 2006

Study the course material on the following web site*:

*Carmen Home Page: <http://carmen.osu.edu>

<u>DATES</u>	<u>TITLE</u>	<u>CHAPTER</u>
First week (1/3)	<i>Introduction, Pharmacokinetics (First Week)</i>	1
<u>Quiz 1 due: 1/17</u>	<i>Pharmacokinetics and Drug Metabolism (First week)</i>	1
	<i>Drug Receptors and Pharmacodynamics (First week)</i>	2
Second week	Autonomic Nervous System & Cholinergic Agonists (Second week)	3, 4
<u>Quiz 2 due: 1/23</u>	Cholinergic Antagonists (Second week)	5
Third week	<i>Adrenergic Agonists (Third week)</i>	6
<u>Quiz 3 due: 1/30</u>	<i>Adrenergic Antagonists (Third week)</i>	7
	<i>Autacoids and Autacoid Antagonists, Drugs Affecting the Respiratory System (Third week)</i>	42, 27
Fourth week	FIRST MID-TERM EXAMINATION (Fourth week, exam on material covered in first 3 weeks)	
<u>Exam I due: 2/6</u>	Treatment of Neurodegenerative Diseases, Antidepressant Drugs (Fourth week)	8, 12
<u>Quiz 4 due: 2/6</u>	Anxiolytic and Hypnotic Drugs (Fourth week)	9
	CNS Stimulants (Fourth week)	10
Fifth week	<i>Anesthetics (Fifth week)</i>	111
<u>Quiz 5 due: 2/13</u>	<i>Alcohols (Fifth week)</i>	Notes
	<i>Neuroleptic Drugs (Fifth week)</i>	13
Sixth week	Opioid Analgesics and Antagonists (Sixth week)	14
<u>Quiz 6 due: 2/20</u>	Drugs Used to Treat Epilepsy (Sixth week)	15
	Anti-Inflammatory Drugs (Sixth week)	41
Seventh week	SECOND MID-TERM EXAMINATION (Seventh week, exam on material covered in 4-6 weeks)	
<u>Exam II due: 2/27</u>	<i>Treatment of Heart Failure (Seventh week)</i>	16
<u>Quiz 7 due: 2/27</u>	<i>Antiarrhythmic Drugs (Seventh week)</i>	17
Eighth week	Antianginal Drugs, Antihyperlipidemics Drugs (Eighth week)	18, 21
<u>Quiz 8 due: 3/6</u>	Antihypertensive Drugs, Diuretic Drugs (Eighth week)	19, 22
Ninth week	<i>Drugs Affecting Blood (Ninth week)</i>	20
<u>Quiz 9 due: 3/13</u>	<i>Insulin and Oral Hypoglycemic Drugs (Ninth week)</i>	24
	<i>Estrogens, Androgens & Adrenocorticosteroids (Ninth week)</i>	25,26
Tenth week	Principles of Antimicrobial Therapy (Tenth week)	30
<u>Quiz 10 due: 3/20</u>	Anticancer Drugs (Tenth week)	39
<u>Final Exam due: 3/20</u>	Principles of Toxicology, Poisons & Antidotes (Tenth week)	Notes
TEXTBOOK:	FINAL EXAMINATION (Tenth week, Comprehensive exam but mostly from wk 7-9) <i>Lippincott's Illustrated Reviews: Pharmacology</i> by Howland and Mycek ISBN Number: 0-7817-4118-1. Third edition, 2006, (available at LWW.com).	

Instructions for students to log in:

Direct your URL to <http://carmen.osu.edu> ; Enter your OSU Internet Username and password. For more information about your OSU Internet ID visit <https://acctmgt.service.ohio-state.edu/Password.html>. **Home Page of Dr. Tejwani: <http://medicine.osu.edu/pharmacology/1166.cfm>

PHARMACOLOGY 600D SYLLABUS

Instructor: Gopi A. Tejwani, Ph.D.
(Winter, Summer and Autumn Quarters)

1. Course Objectives

This is a totally online introductory course emphasizing the general principles of Pharmacology. Students are expected to learn the material posted on the course web site. The objective of the course is to give a simple overview of the subject to students who have not been exposed to pharmacology previously.

We plan to cover the following topics in this course: General aspects of pharmacology, drug effects on the nervous system and neuroeffectors, psychopharmacology, depressants and stimulants of the central nervous system, anesthetics, drugs used in cardiovascular diseases, drug effects on the respiratory tract, drugs that influence metabolic and endocrine functions, chemotherapy, principles of toxicology, etc.

Students are expected to learn the material posted on the course web site. Please go to the Carmen Home Page: <http://carmen.osu.edu>

At the end of the course, we expect the students to be familiar with the names, classification and the mechanism of action of drugs in each of the specific areas of pharmacology mentioned above.

2. Prerequisites

Students having some background in biochemistry and/or physiology can attend this course with the permission of the instructor.

3. Teaching Program

Course material has to be reviewed from the Carmen course site and the required textbook. There is no laboratory work involved in this course.

4. Examination Schedule

Please review the schedule of teaching. The final grade will be decided based on cumulative performance in ten weekly quizzes (50% grade), two midterm (each 15% grade) and one final examination (20% grade).

Quiz Format

Each quiz will consist of 30 to 40 multiple-choice questions to be answered in 60 minutes. **Students must score at least 50% on each quiz before they are allowed to study the material for the next week.** Students will be given three attempts on each quiz. **The attempt with the highest score for each quiz will be considered for the final grade tabulation.** However, please note that second and third attempt for each quiz may bring up a few new questions.

Students **may** work at a quicker pace. However, each weekly quiz **must be completed by 3pm Eastern Time on Monday** of the following week.

(For example, the Week 1 Quiz is due, at 3:00pm on Monday of Week 2.)

The deadline for completing quizzes and examinations is not extended. If a student does not abide by the deadline, it may result in getting zero score in a quiz or exam.

Only 60 minutes will be allocated to answer all the questions in each quiz.

Mid Term Format

In each mid-term examination 60 multiple choice questions will be asked. In the midterm exams, there will be all new questions based mostly on the lecture notes posted on the web site. The first midterm examination will cover the material from the first three weeks. **The first Mid Term must be completed by Monday of the fourth week at 3:00 PM**

The second midterm will cover the material from weeks 4-6. **The second Mid Term must be completed by Monday of the seventh week at 3:00PM. Only one attempt** will be allowed to answer the questions in the midterm examinations. Only 70 minutes will be allocated to answer all the questions in each midterm examination.

Final Format

In the final examination 80 multiple choice questions will be asked. In the final exam, there will be all new questions based mostly on the lecture notes posted on the web site. The final examination will cover the material mostly from weeks 7-10. About 20 questions will be asked from the material covered in weeks one to six. **The Final Examination must be completed by indicated date and time (3:00PM). Only one attempt** will be allowed to answer the questions in the final. Only 90 minutes will be allocated to answer all the questions in the final examination.

5. Early Final Examination

Graduating Seniors should plan to take the Final Exam on the recommended day by 3:00 PM. It is possible for any student to take an early final examination. Students who have completed taking all the quizzes, midterm exams, and evaluation of course can take the final exam at any time.

7. Grading

The grade will be based on the following cumulative scores:

93% and up	A
90-92%	A-
85-89%	B+
80-84%	B
75-79%	B-
70-74%	C
65-69%	D
64% or less	Fail (E)

Calculation of grade: For example, if you scored 338/375 (90%) in all ten quizzes, and 160/200 (80%) in all three examinations, your final grade will be $90\%+80\%/2=85\%$ or equivalent to B+.

8. **How to Reach the Coordinator of the Course**

My office is in 5072 Graves Hall and my telephone number is 292-7092. Messages can also be kept in the Department of Pharmacology office, room 5072 Graves Hall. Phone 292-8608. ***Students are welcome to call me or see me personally.*** My e-mail address is Teiwani.1@osu.edu.

9. **Technical Help**

If you have a problem logging in to the course web site, please fill out the request for access form that appears after 3 unsuccessful login attempts. For any other technical problem, such as opening up a quiz or exam web page, please send an email to the instructor Teiwani.1@osu.edu.

System Check

- Please run a System Check before beginning to use the Carmen course site. It will automatically verify whether your web browser is a version compatible with WebCT and that is configured properly. (with JavaScript, cookies, and Java enabled)
- To access the System Check please go to <http://carmen.osu.edu> and click on the System Check link in the upper left-hand corner of the page.

Pop-up Stopper

- Make sure that you have no "pop-up stoppers" running on your system. Carmen uses pop-up windows.
 - o Note for Windows XP users: XP Service Pack 2 installs pop-up blockers by default, so when you install the Service Pack you have to change settings for Carmen to work. For more info see the article: [Windows XP Service Pack 2 Pop-up Blocker](#)

System Requirements

Regardless of whether you have a Windows or a Macintosh computer, you'll need at least a 28.8 modem for off-campus dial-in connections or a 10 Base-T Ethernet adapter card for ResNet connections. Ethernet cards are available at most computer stores.

10. **REQUIRED TEXTBOOK:**

Lippincott's Illustrated Reviews: Pharmacology by Howland et. al.
ISBN Number: 0-7817-4118-1. Third edition, 2006, (available at LWW.com).

11. How to enroll in the course?

OSU students can register for the class in normal way.

Students who are not OSU students and want **undergraduate level credits** for taking Pharmacology 600D can visit the following web site for the OSU Office of Continuing Education and enroll in the class through them.

<http://www.continuinged.ohio-state.edu/>

OSU Office of Continuing Education:

Telephone: (614) 292-8860

Fax: (614) 292-0049

Students who are **not** OSU students and want **graduate level credits** for taking Pharmacology 600D course must first register as graduate non-degree students at OSU. The registration process is explained and can be completed at the following OSU web site:

<http://gradadmissions.osu.edu/nondegree.html>

If you need any help with the process to register as graduate non-degree students, please contact Sharon Breckenridge, Program Associate- Graduate School, at breckenridge.2@osu.edu, telephone 614-292-6031, Fax 292-3656.

12. Two papers have been published on the development of this online course that give details about the performance of students in this course versus their performance in a similar course given in the classroom (fact-to-face).

1. "Developing an online course in General Pharmacology", **G.A. Tejwani** (2004) Ohio Commons for Digital Education (OCDE) 2004 Conference, Online publication posted on http://www.olin.org/conferences/OCDE2004/papers/OCDE2004_Tejwani_Paper.pdf

2. Perspectives on Teaching of Pharmacology: Metamorphosis of Teaching from Blackboard to Online Electronic System. **G.A. Tejwani** (2005,), "**Topics in the History of Pharmacology**," P.N. Patil et. al. editors, B.S.Shah Prakashan Publishers, Ahmedabad, India, 2005, pp.210-244.

A pdf file of this paper is posted in the "Resources" section of the course web site. You can also request for a reprint of this paper by sending email to tejwani.1@osu.edu

EIGHT CARDINAL RULES OF ACADEMIC INTEGRITY

- 1. Know Your Rights.** Do not let other students in your class diminish the value of your achievement by taking unfair advantage. Report any academic dishonesty you see.
- 2. Acknowledge Your Sources.** Whenever you use words or ideas that are not your own when writing a paper, use quotation marks where appropriate and cite your source in a footnote, and back it up at the end with a list of sources consulted.
- 3. Protect Your Work.** In examinations, do not allow your neighbors to see what you have written; you are the only one who should receive credit for what you know.
- 4. Avoid Suspicion.** Do not put yourself in a position where you can be suspected of having copied another person's work, or of having used unauthorized notes in an examination. Even the appearance of dishonesty may undermine your instructor's confidence in your work.
- 5. Do your own work.** The purpose of assignments is to develop your skills and measure your progress. Letting someone else do your work defeats the purpose of your education, and may lead to serious charges against you.
- 6. Never falsify a record** or permit another person to do so. Academic records are regularly audited and students whose grades have been altered put their entire transcript at risk.
- 7. Never fabricate** data, citations, or experimental results. Many professional careers have ended in disgrace, even years after the fabrication first took place.
- 8. Always tell the truth** when discussing your work with your instructor. Any attempt to deceive may destroy the relation of teacher and student.

Psychology 511
Psychological Testing
TR 11:00 a.m.-12:18 p.m.
BE 120
Dr. Nancy Betz
110 Townshend Hall, 292-4166
betz.3@osu.edu
C.A.: Eunha Kim - kim.1559@osu.edu
Call Number: 16949-0
Course website: www.psy.ohio-state.edu/courses/511

Objectives

This course is designed to introduce the student to the field of psychological testing. We will begin with definitions and means of evaluating the quality and usefulness of psychological tests and measures. We will then examine several major types of psychological tests/measures - intelligence, ability, personality, interest, work values, and self-efficacy. Within each category we will focus specific attention on one or two examples of that category.

Prerequisites

Psychology 100 and Introductory Statistics.

Course Requirements

Three exams based on lecture and assigned readings from W. Walsh & N. Betz (2001), Tests and Assessment. Exams will be objective in nature with multiple choice and completion items. There will be a few statistical computations on the midterm. The final is not comprehensive but covers material since the second mid-term.

Assignments: 15 pts. Each. Graded Pass/Fail. The grade of pass will be given only if the student has completed all portions of it.

In order to be given the two tests below, you must bring \$16.00 to Dr. Betz on Thursday, January 6.

1. Complete the Strong Interest Inventory by week 2 of class (1/13). It will be mailed for scoring so that you will have it for the class sessions. Also complete the Skills Confidence Inventory, to be given to you in class. A test report based on your SII and SCI results will be due February 10 in class.
2. Complete and score the Myers-Briggs Type Indicator. Complete the test report as instructed. Due Tuesday, March 8.
3. Make a Vocational Card Sort for use in class March 3.
4. Class attendance. You may have two unexplained absences. After that, 5 points will

be charged for each missed class. If you attend all but two classes I will consider that if your grade is on the border between grades.

Grades will be assigned as follows:

2 Midterms 1/3 each, so 2/3 of total points

Final 1/3 of total points

Late assignments will be docked 4 points/day late.

Tentative Course Schedule

Part I: Foundations

<u>Date</u>	<u>Topic</u>	<u>Reading</u>
Tuesday, January 4	Historical overview Definitions of terms	Chapter 1
Thursday, January 6	Review of Basic Statistical Concepts	Chapter 2
Tuesday, January 11	Reliability and Validity	Chapter 3 47-70
Thursday, January 13	Scale Construction	Chapter 3 71-84

Part II: Intelligence, Abilities, and Achievement

Tuesday, January 18	Measuring Intelligence	Chapter 6
Thursday, January 20	Measuring Aptitudes	Chapter 7
Tuesday, January 25	Midterm #1	

Part III: Interests

Thursday Jan 27	Overview of Interests, Holland's theory; Strong Interest Inventory	
Tuesday, February 1	Self-Efficacy: Measuring and Using with Interests	

Part IV: Measuring Personality

Thursday, February 3	Objective vs. Projective Assessment	
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Tuesday, February 8	Diagnosis and MMPI	
Thursday Feb 10	Interview with "Client" who took the MMPI-2	
Tues Feb 15	Myers-Briggs, Other measures of personality, Projective Measures	
Thursday, February 17	Midterm #2	
Tuesday, February 22	Assessing the Healthy Personality	TBA

Part V: Values and Career Decision Making

Thursday Feb 24	Work Values	Ch 10
Tues March 1	Practice Using Vocational Card Sort	
Thursday March 3	Career Maturity and Career Decision Making	Chapter 10
Tuesday, March 8	Person-Environment Psychology	Chapter 12
ALSO MARCH 8 MBTI ASSIGNMENTS DUE		
Thursday, March 10	Ethical Issues and Course Evaluation	Chapter 14
Tuesday, March 15	9:30-11:18 a.m., Final Exam	

Grading.

The grade will be based on total points from the three exams. The three assignments will be graded Pass/Fail, so that most or all of you will receive 15 points per assignment. Failure to complete the assignment will cost you 15 points per assignment, but earning the full 15 will not affect your grade positively.

Psychology 684: Psychology of Delinquency (5 credit hours)
(Mon. & Wed., 4:30-5:48 p.m.; Lazenby Hall rm. 1)
The Ohio State University
Autumn Quarter, 2003
Professor John C. Gibbs
(292-7918; gibbs.1@osu.edu, Office hours by appointment)

Objective

The objective of the course is to enable participants to gain a research-oriented understanding of the current findings and issues in the psychology of delinquency, and to gain particular sophistication with respect to selected research areas and issues.

Plan for Achieving Objective

Participants will gain this understanding and sophistication through: completion and discussion of assigned readings (featuring discussions of questions as provided mainly by class members); development and completion of a paper relating to a selected topic in the readings; a class presentation related to one's paper topic; and discussions based on the class presentations. This emphasis upon student presentations and discussion of topics/issues means that the Psychology of Delinquency may be characterized as a seminar. In seminars, the teaching contribution of the professor is accomplished in a somewhat spontaneous fashion during the course of class discussions. Students preferring courses with a more traditional lecture format may be best advised not to take Psychology 684.

Required Reading

The common required reading consists of: (1) a packet of recent journal articles and book chapters; (2) chapters from Stanton Samenow's *Inside the Criminal Mind* (Random House, 1984); and (3) all of Alan Kazdin's *Conduct Disorders in Childhood and Adolescence (CDCA)*; 2nd edition; Sage, 1995). (Recommended are the instructor's pertinent books: *Moral Development and Reality: Beyond the Theories of Kohlberg and Hoffman* [Sage, 2003]; and *The EQUIP Program: Teaching Youth to Think and Act Responsibly through a Peer-Helping Approach* [Research Press, 1995].) The books should be available at any of the three local bookstores (University/Millikan Road, Long's, SBX). The packet can be purchased at the Tuttle Cop-ez, 2055 Millikan Way.

Question lists for the reading assignments are provided in the final section of this syllabus. To make possible good class discussions, students *must* prepare for class by doing the readings, studying the question lists, and preparing their own discussion questions (see Details Regarding the Quizzes and Details Regarding Class Participation sections).

Determinants of Grades

Grades will be determined by performance on: (1) the paper; (2) midterm and final quizzes (see below); and (3) class participation (see Details Regarding Class Participation, below). These factors will each count about one-third of the grade.

Details Regarding the Quizzes and Question Lists

The paper, preparation of discussion questions, class presentations, and class discussions provide an opportunity for individual reflection, synthesis, and expression. The quizzes are designed to stimulate and provide an opportunity to demonstrate mastery of the "meat and potatoes," that is, knowledge and theory in the psychology of delinquency. The midterm and final quizzes will be more like exercises than examinations, since all of the questions will be drawn verbatim from the question pools. There will be 10 short-answer questions on each of two midterm quizzes and 10 on the final (actually 11, with 1 question of your choice as a "throw-away"). The final quiz will cover the post-midterm material only.

Details Regarding the Paper

As noted, the objective of participants as they develop their papers will be to gain particular sophistication with respect to a specific research area or issue in the psychology of delinquency. The paper should also reflect diligent and comprehensive library work (helpful in this connection are consultations with reference librarians as well as on-line services such as PsycInfo, Oscar, and OhioLink). Other web sources may be suspect and are not encouraged. In addition to its scholarly substance, the paper should entail organization, coherence, and reflective thought. Three requirements are that the paper: (a) make reference at some point to pertinent required reading; (b) use a minimum of 5 references beyond the required reading; and (c) be typed double-spaced for a total length of between five and fifteen pages. Papers are due on the last regular class session before finals week; students turning in papers after this date will receive an Incomplete with prejudice. The paper deadline for graduating seniors is the next-to-last regular class session before finals week.

Details Regarding Class Participation

Class participation entails: (a) attendance (note: a habit of leaving class early is not considered good class participation); (b) a class presentation ("time of sharing") based on what one has been learning in working on one's paper; and (c) contribution of discussion questions (note: a habit of not asking one's discussion question despite ample class time is not considered good class participation). The class presentations will be graded highly satisfactory, satisfactory, and unsatisfactory by the criteria of preparedness/organization and clarity/coherence. The discussion questions (pertaining to the assignments, encouraged but not required) should be typed if possible, and one's name and the course number/date should be at the top of the page. It is expected that the discussion questions will be of good quality. Excellent class participation would entail, then: perfect or near-perfect attendance; a highly satisfactory class presentation; and submission of a "quality" discussion question for every assignment.

Organization

There are three "families" of questions which seem to be fundamental in recent psychological studies of delinquency:

- I. Characterization: What is delinquency? How do delinquents (or conduct-disordered adolescents) differ as a whole from non-delinquents? Are there distinct types of juvenile delinquents?
- II. Risk and protective factors: What factors enhance the risk that a child will become a delinquent? What factors play a protective role? Can juvenile delinquency or recidivism be predicted?
- III. Treatment/Prevention: Is effective treatment possible? Can delinquency be prevented? What approaches and programs have been tried, and how successful have they been with various types of delinquents?

The above three categories of questions constitute the basic organization for the course material. The paper topics are grouped under divisions representing each of those three questions. Required readings are associated with most of the divisions.

Discussion Agenda for Required Readings (Note: A separate agenda will be provided for dates of times of sharing)

I. Overview

September 24. Preliminary, introductory, and organizational.

September 29. Chapters 1 ("Introduction and Nature of the Problem") and 2 ("Diagnosis and Assessment") in Kazdin's (1995) *Conduct Disorders in Childhood and Adolescence (CDCA*, one of the textbooks).

II. Characterization (see paper topics 1-9)

A. Personality, cognitive, and developmental perspectives

October 1. Pp. 133-151 of Lickona, T. (1983). Stage 2: What's in it for me? In *Raising good children*. New York: Bantam Books.

October 6. Offer, D., Marohn, R. W., & Ostrov, E. (1979). Chapter 3 ("Four Psychological Subtypes") in *The psychological world of the juvenile delinquent*. New York: Basic Books.

October 8. Dodge, K. A. & Schwartz, D. (1997). Social information processing mechanisms in aggressive behavior. In D. M. Stoff, J. Breiling, & J. D. Maser (Eds.), *Handbook of antisocial behavior*. NY: Wiley.

B. The violent or psychopathic juvenile offender

October 13. Two assignments. (1.) Haney, C. W. (1983). The good, the bad, and the lawful: An essay on psychological injustice. In W. Laufer & J. M. Day (Eds.), *Personality theory, moral development, and criminal behavior*. Lexington, MA: Lexington Books. (2.) Preface and chapters 1 ("A New Beginning"), 2 ("The Basic Myths about Criminals"), and 10 ("Criminals' Self-Image: Decent People") in Samenow's *Inside the criminal mind* (one of the course textbooks). Students are strongly encouraged to read also chapters 6 through 8.

October 15. Goleman, D. (1995). The roots of empathy. Chapter 7 (pp. 96-110) of *Emotional Intelligence: Why it can matter more than IQ*. New York: Bantam Books.

October 20. Midterm quiz I.

C. The female delinquent

II. Contributing (Risk and Protective) Factors (see paper topics 10-27)

A. Social and situational contexts

October 22. Warren, M. Q., & Hindelang, M. J. (1979). Current explanations of offender behavior. Chapter 7 in H. Toch (Ed.), *Psychology of crime and criminal justice*. New York: Holt, Rinehart, and Winston.

B. Developmental disabilities

C. Family factors

October 27. Welsh, R. S. (1976). Severe parental punishment and delinquency: A developmental theory. Journal of Clinical Child Psychology, 5, 17-21.

October 29. Dodge, K. A., Bates, J. E., & Pettit, G. S. (1990). Mechanisms in the cycle of violence. Science, 250, 1678-1683.

November 3. Chapter 3 ("Risk Factors, Onset, and Course of Dysfunction") in *CDCA*.

November 5. Chapters 3 ("Parents Don't Turn Children into Criminals"), 4 ("Peer Pressure: No Excuse for Crime"), and 5 ("The Hell with School") in Samenow's *Inside the criminal mind* (one of the course textbooks).

November 10: VETERANS' DAY (no classes)

D. Cognitive or self-esteem factors

November 12. Gibbs, J. C. (2003). Chapter 6 ("Understanding Antisocial Behavior"). In *Moral development and reality: Beyond the theories of Kohlberg and Hoffman*. Thousand Oaks, CA: Sage.

E. Longitudinal and predictive studies (no required reading, but there may be times of sharing)

November 17. Midterm Quiz II

III. Treatment/Prevention (see paper topics #28-48)

A. Overview

November 19. Two assignments: (1.) Chapters 4 ("Current Treatments"), and 6 ("New Directions for Research") in *CDCA*; and (2.) Gibbs [see Developmental Approaches, below].

B. Developmental approaches

Second assignment for November 19. Gibbs, J. C. (2003). Chapter 7 ("Treating Antisocial Behavior"). In *Moral development and reality: Beyond the theories of Kohlberg and Hoffman*. Thousand Oaks, CA: Sage.

November 24. Two assignments: (1.) Pp. 146-159 of Lickona, T. (1983). Stage 2: What's in it for me? In *Raising good children*. New York: Bantam Books; and (2.) Patterson [see Behavioral Approaches, below]. [Read the Patterson assignment first.]

C. Behavioral approaches

Second assignment for November 24. (1.) Patterson, G. R. (1975, rev. ed.). Chapters 11 ("The Child Who Steals") and 12 ("The Aggressive Child") in his *Families: Applications of social learning to family life*. Champaign, IL: Research Press.

November 26. **CLASS CANCELLED. HAVE A GOOD THANKSGIVING!**

D. Family- and Community-based programs (no required reading, but there may be times of sharing)

E. Recreational and vocational programs (no required reading, but there may be times of sharing)

F. Prevention or diversion programs (no required reading, but there may be times of sharing)

December 1. Chapter 5 ("Prevention") in *CDCA*.

G. Miscellaneous approaches (no required reading, but there may be times of sharing)

H. Treatment of the violent or psychopathic juvenile offender

December 3. Chapters 13 ("To Change a Criminal") and 14 ("Corrections that Count") in Samenow's *Inside the criminal mind* (one of the course textbooks).

N.B.: The Final Quiz will be given on Wednesday, December 10, at 3:30 p.m.

PAPER TOPIC OPTIONS

(Titles are suggestive only)

- I. Characterization
 - A. Personality, Cognitive, and Developmental Perspectives
 1. "Personality Classifications of Delinquents"
 2. "Sensation-Seeking, Impulsivity or Attention Deficit/Hyperactivity, and Delinquency"
 3. "Locus of Control and Delinquency"
 4. "Intelligence and Delinquency"
 5. "Moral Judgment Immaturity and Delinquency"
 - B. The violent or psychopathic juvenile offender
 6. "The Violent Juvenile Offender"
 7. "The Juvenile Sex Offender"
 8. "Psychopathy: Recent Research and Conceptual Issues"
 - C. The female delinquent
 9. "The Female Delinquent"
- II. Contributing (Risk and Protective) Factors
 - A. Social and psychological context
 10. "The Control or Social Bond Theory of Delinquency"
 11. "The Labeling Theory of Delinquency"
 12. "School-Related Factors and Delinquency"
 13. "Bullying at School"
 14. "Gang- or Peer-Related Factors and Delinquency"
 15. "Social-Class, Community, or Neighborhood-Related Factors & Delinquency"
 - B. Developmental disabilities
 16. "Learning Disability and Delinquency"
 17. "Genetic Factors and Delinquency"
 18. "Psychobiological Factors and Delinquency"
 - C. Family factors
 19. "Parenting Factors and Delinquency"
 20. "Ecology of the Home and Delinquency"
 21. "Child Abuse and Delinquency"
 - D. Attitudinal or self-esteem factors
 22. "Cognitive Distortion and Delinquency"
 23. "Relations Between Self-Esteem or Self-Concept and Delinquency"
 24. "Depression and Delinquency"
 - E. Longitudinal and predictive studies
 25. "Longitudinal and Predictive Analyses of Delinquency"
 26. "Predictive Analyses of Recidivism"

- F. Etiology of the violent or psychopathic offender
 - 27. "Factors Contributing to Psychopathy or Violent Offending"
- III. Prevention and Treatment
 - A. Overview
 - B. Developmental and educational approaches
 - 28. "Positive Peer Culture and Related Approaches to the Treatment of Delinquency"
 - 29. "Sociomoral-Developmental Approaches to the Treatment of Delinquency"
 - 30. "Educational or School-Based Approaches to the Treatment of Delinquency"
 - 31. "Bullies: Strategies for Intervention"
 - C. Behavioral and cognitive-behavioral approaches
 - 32. "Use of the Token Economy in the Treatment of Delinquency"
 - 33. "Behavioral Approaches to the Individual Treatment of Delinquents"
 - 34. "Social Skills Training in the Treatment of Delinquents"
 - 35. "Anger Management and other Cognitive-Behavioral Therapies"
 - D. Family- and community-based programs
 - 36. "Family-Focused Programs for the Treatment of Delinquents"
 - 37. "Multi-Systemic Therapy for Delinquents"
 - 38. "Community-Based Programs for the Treatment of Delinquents"
 - E. Recreational and vocational programs
 - 39. "Recreational and Outdoor Programs for the Treatment of Delinquents"
 - 40. "Vocational Programs for the Treatment of Delinquents"
 - F. Prevention or diversion programs
 - 41. "Preventing Delinquency"
 - 42. "Diversion Programs for Delinquents"
 - G. Miscellaneous programs
 - 43. "Delinquency and Treatment"
 - 44. "Multi-Component Approaches to the Treatment of Delinquents"
 - 45. "Reality Therapy for Delinquents"
 - H. Treatment of the violent or psychopathic offender
 - 46. "Psychopharmacological Treatment of Aggression"
 - 47. "Treatment of Violent or Psychopathic Juvenile Offenders"
 - 48. "Treatment of Juvenile Sex Offenders"

Sociology 210
 Deviance
 AUTUMN 2004
 Professor Richard J. Lundman

Office: Bricker 388
 Office Hours: Friday 10:00-12:00
 and by appointment
 Phone: 292-2110
 Email = lundman.1@sociology.osu.edu -
 please use email to make initial contact;
 thanks.

STUDENTS WITH DISABILITIES, PLEASE NOTE: The student must contact the Office of Disabilities in 150 Pomerene Hall (292-3307) to make arrangements for special consideration in this course. Students with documented disabilities are responsible for making their needs known to the instructor and seeking available assistance in a timely manner. This syllabus is available in alternative formats on request from the Sociology Advising Office in 304 Bricker Hall (292-2056). Thank you.

Also please note: 1) Please do not converse with colleagues during class.

This interferes with learning and professing. Thanks.

2) Please do not start to pack up before class ends. I will always end class precisely at 9:48. Thanks.

3) Guests are always welcome in our class. Any and all are invited to join us in our class.

Overview

This course examines the nature of deviance and deviant behavior in contemporary society. It begins with the deviance defining process. It continues with the deviant selection process. Readings direct attention to major patterns of individual and organizational deviance. The course emphasizes that organizations, not just individuals, are acting units capable of deviance.

Student Learning Objectives

Students successfully completing this course will be: 1) able to specify the social forces that surround creation of deviance categories; 2) able to describe the processes whereby individuals and organizations are placed in deviance categories; 3) aware of major patterns of individual and organizational deviance; and 4) prepared to take additional sociology courses in this and other substantive areas if they wish.

Required Readings

These books are required and available in bookstores:

Bourgois, Phillepe. *In Search of Respect: Selling Crack in El Barrio*. Second Edition. New York: Cambridge University Press, 2002

MacDonald, Michael Patrick. *All Souls: A Family Story from Southie*. Boston: Beacon Press, 1999.

Ermann, M. David and Richard J. Lundman, eds. *Corporate and Governmental Deviance: Problems of Organizational Behavior in Contemporary Society*. Sixth Edition. New York: Oxford University Press, 2002.

Bari-Ellen Roberts, *Roberts vs. Texaco: A True Story of Race and Corporate America*. New York: Avon Books, 1999.

Evaluation Procedures and Grading

There will be four examinations during the quarter: 1) Monday October 11; 2) Wednesday October 27; 3) Wednesday November 17; and 4) Tuesday December 7 from 7:30 to 9:18 a.m. during final exams week. All exams take place in our classroom. The exams are not cumulative. Each exam will consist of multiple-choice, fill-in-the-blank, true-false, and very short essay questions. There are 50 points (25 from class and 25 from reading and recitation) on each examination and therefore 200 points available across the quarter.

Grades will be assigned primarily on the basis of total points on all four examinations. Cutting points for particular letter grades will be no higher than the following: "A" 180 points or above; "B" 160 to 179 points; "C" 140 to 159 points; "D" 120 to 139 points; "E" less than or equal to 119 points. Attendance will be taken in Recitation five times during the quarter and students present all five times attendance is taken will be boosted up to the next higher grade if total points are within five points of that next higher grade. If present four of five, boosted up four points if within four points of higher grade. Three or less than five, no boost.

Except for illness or other verifiable emergency, missed exams will not be made up.

Office Hours

Please use my office hours and those of our Graduate Teaching Associates to pursue questions about reading and lecture materials.

Lecture and Recitation Attendance

Half of the total points on each examination will be based upon lecture materials that are not drawn from the readings. The other half will be based upon reading materials as reviewed in recitation and on material unique to the recitation meetings. You therefore will not do well in our class without regular lecture and recitation attendance.

Last Two Pages of this Outline

The last two pages of the outline provide a "map" for both major sections of the course. You should read each map before we begin each section, bring them with you to class to serve as a guide, and refer to them in preparing for each exam. Thanks.

Course Outline, Lecture Topics, and Reading Topics and Assignments

<u>Date(s)</u>	<u>Lecture Topics</u>	<u>Reading Topics and Assignments</u> <i>Patterns of Individual Deviance</i>
9/22	Introduction	Bourgois, all
9/27-10/6	The Deviance Defining Process: Why are some behaviors considered deviant? = SEE ROADMAP #1	Bourgois, all
10/11	Examination Number One in Class	Bourgois, all; classes and recitations, 9/22-10/7
10/13-10/25	The Deviance Defining Process - continued	MacDonald, all
10/27	Examination Number Two in Class	MacDonald, all; classes and recitations, 10/13-10/26
		<i>Patterns of Organizational Deviance</i>
11/1-11/15	The Deviant Selection Process: Why are some actors labeled deviant? = SEE ROADMAP #2	Ermann and Lundman, all
11/17	Examination Number Three in Class	Ermann and Lundman, all; classes and recitations, 10/28- 11/16
11/22-12/1	The Deviant Selection Process - continued	Roberts, all
12/7	Final examination, 7:30 - 9:18 am. in our classroom	Roberts, all; classes and recitations, 11/18-12/2

SOCIOLOGY 210 - ROADMAP AND BIG QUESTION NUMBER ONE:

"WHY ARE SOME BEHAVIORS CONSIDERED DEVIANT?"

HERE ARE SOME OF THE BOUNDARIES OF SOCIOLOGICAL ANSWERS:

1. Some deviance categories are linked to important and widely shared social norms. Deviance categories exist because the behavior in question violates these important social norms. Common examples include murder, rape, and some types of theft. This is the earliest sociological approach to defining deviance, usefully traced to the sociologists who studied "Social Pathology" as deviance was called in the early 1900s.
2. Other deviance categories exist because of arbitrary consensus on what is "right" and "proper." In addition to being arbitrary, this consensus frequently is fragile and limited to particular situations, groups, or time periods. A nice example is motoring on the right side of the road in the United States and other countries, the left side in Great Britain and other countries. Other examples direct attention to the "relational rules" of face-to face groups such as family unit (toilet seat left up or down?) and changes with respect to prohibition, drunk driving, cigarette smoking, and abortion across time in the United States. This is the interactionist approach to defining deviance. Usefully traced to Northwestern University sociologist Howard Becker's 1963 assertion that "deviant behavior is behavior that people so label."
3. Still other deviance categories exist because of important differences in the social power of those working to create the deviance category ("moral entrepreneurs") as compared to those responsible for the behavior in question ("targets"). When moral entrepreneurs are powerful or when targets lack power, deviance categories tend to emerge. Marijuana laws from the early 1930s are a nice example here. However, when moral entrepreneurs lack power or when targets are powerful, deviance categories tend not to emerge. The Ford Pinto episode that began in the early 1970s and literally continues to today is an especially interesting example here. This is a variation on the conflict/radical/marxist approach to defining deviance.

SOME VOCABULARY

Social Norms	(rules, expectations, standards)
Actors/social actors	(people, organizations)
Moral Entrepreneurs	(actors attempting to create deviance categories)
Social Power	(money, resources, prestige, organization, numbers)
Civil-Legal Rules	(legal norms - murder)
Situational Rules	(norms in behavior settings - university class rooms, golf courses)
Relational Rules	(norms in face-to-face groups - family)

BOTTOM LINE: I think social power is critically important in the creation of deviance categories.

SOCIOLOGY 210 - ROADMAP AND BIG QUESTION NUMBER TWO:

"WHY ARE SOME ACTORS LABELED DEVIANT?"

HERE IS THE BIG ANSWER:

"Let it be said at once - deviant labels usually are 'well-earned.' People who are publicly designated as deviant...are far more likely to have committed acts of deviance...even by their own admission...than unlabeled people who are considered conventional." (Professor Eric Goode, Deviance, p. 55).

However, factors other than frequent commission of the behavior in question also are linked to the deviant selection process; so, here is the rest of the answer:

"The screening device which sifts...telling details out of the person's over-all performance...is a very important instrument of social control. We know very little about the properties of this screen, but we do know that it takes many factors into account which are not directly related to the deviant act itself; it is sensitive to the...[actor's]...social class, past record as an offender, the amount of remorse...convey[ed]...and many similar concerns which take hold in the shifting moods of the community. This may not be so obvious when the screen is dealing with extreme forms of deviance like serious crimes, but in the day-by-day filtering processes which take place throughout the community this feature is easily observable. Some...who drink too much are called alcoholics and others are not, some...who have no visible means of support are hauled into court and others are not - and the difference between those who earn a deviant label and those who go their own way in peace depends almost entirely on the way in which the community sifts out and codes the many details of behavior to which it is a witness. In this respect, the community screen may be a more relevant subject for sociological research than the actual behavior which is filtered through it." (Professor Kai Erickson, p. 25-26 in Rubington and Weinberg).

SOME VOCABULARY

Deviance categories	(types of deviance; traffic law violator; price-fixer)
Labeling	(placement/attempted placement of actor in deviance category; shoplifter; price-fixer)
Amateur labelers	(you and me; untrained and unpaid, yet make large number of labeling decisions and launch most deviant careers)
Professional labelers	(trained and paid to make labeling decisions; cops; alcoholism counselors; social workers; psychiatrists)

BOTTOM LINE: I think placement in deviance categories is a complex process that requires careful attention to the frequency and seriousness of the behavior in question and the characteristics of the actor being considered for labeling.

s: dev.out

SOCIOLOGY 294

Approved
as Soc 3!



THE SOCIOLOGY OF GANGS

The Ohio State University

Section # 19926-3

Winter 2005

Monday & Wednesday: 9:30-11:18 a.m.

McPherson Chemical Lab (MP) – 1035

Instructor: James (Jim) Sutton

Email: sutton.133@osu.edu

Campus Mailbox: 301 Bricker Hall

Phone #s: 688-4354 (office); 292-6681 (message)

Homepage: <http://www.soc.sbs.ohio-state.edu/jes/>

Office: 001 Raney Commons (cubicle C)

Hours: Mondays 11:30-1:30 p.m.

& Fridays 1:30-3:30 p.m.

(& also by appointment)

Course Description: In this class we will examine a broad range of topics related to gang activity in the United States. This course will focus primarily on contemporary urban street gangs. With that said, however, please note that we will also devote some time to the study of other groups commonly associated with gang activity, such as outlaw bikers and prison gangs. Our main objective as sociologists will be to better understand the social conditions that lead to the emergence of gangs. Some additional topics that we will study include trends in gang activity and perceptions of the gang problem, racial and ethnic differences between gangs, common behaviors of gang members, and potential solutions to the challenges that gangs present. Upon completion of this class you will have a deeper understanding of “the gang problem” and, hopefully, some thoughts on what we should do about it.

Course Objectives: The primary objectives of this course are to provide you with:

- ✓ A critical understanding of the social forces that give rise to gang activity
- ✓ An appreciation for the issues involved when researching gangs
- ✓ Exposure to diverse viewpoints on the topics covered in this class
- ✓ A positive learning experience

Course Materials: The following books are *required* for the course and can be purchased in the University Bookstore or at the various bookstores on High Street:

- *Hell's Angels*. Hunter S. Thompson (1996). Ballantine Books.
- *Understanding Street Gangs*. Robert K. Jackson & Wesley D. McBride (2000). Wadsworth.
- *Always Running: La Vida Loca - Gang Days in L.A.* Luis Rodriguez (1994). Touchstone.
- *Do or Die*. Leon Bing (1992). Perennial.

-
- *Additional Required Readings:* You will need to get *seven* additional reserve readings off Electronic Reserve. **RR** denotes these readings in our class/reading schedule (see pp. 6-8). – come see me if you have trouble using the Library's Electronic Reserve Website.

***Please note that I have put copies of the textbooks and the reserve readings on hard reserve in the Main Library for students who are unable to obtain their own copies.**

Evaluation - Course Requirements: Three in-class examinations and three assignments comprise the formal requirements for this course.

- I. *In-Class Exams:*** There are three in-class examinations in this course. You will be tested on the material covered during class, as well as on the material in the films and your readings. Each exam consists of multiple choice/true-false/matching/short-answer questions. I will provide you with a study guide and set aside time for a review session before each exam.
- II. *Ohio Gang Survey:*** You will notice that most of the gang research has been conducted in states other than Ohio. To help us attain a better understanding of Ohio's gang problem, each class member will determine whether or not gangs exist in a couple of Ohio cities/towns. We will then put our information together on a map and analyze the results. ***I will provide more instructions in class.***
- III. *Case Study Project:*** Although we will examine a variety of issues this quarter, it will be impossible to cover most of them in-depth. You will therefore use this project as an opportunity to learn more about a specific gang-related topic of your choice (upon my approval). Your completed project will be approximately 4-5 pages. Please note that you will need to submit a brief ***Statement of your Assignment Topic*** in class on February 9th. ***I will provide more instructions in class.***
- IV. *Poster Assignment:*** We will conclude the quarter with a poster session. You will therefore need to put together a poster that summarizes the content of your case study project. This will be a fun way to complete the class, and it will also allow us all to gain exposure to a broad range of topics related to gangs. Given that the explicit goal of the poster session is to share information with others in the class, **you and your poster must be present in class on March 9th to receive credit for the Poster Assignment.** ***I will provide more instructions in class.***

Grading: I do not use the plus/minus system for grading. This decision is based on my belief that plus/minus grading tends to hurt more students than it benefits. Final grades for the course will be determined using the following scale:

245 - 221 points = A
220 - 196 points = B
195 - 172 points = C
171 - 147 points = D
146 - 0 points = E

The points you earn on the exams and writing assignments will be added up to give you your total number of points for the course:

Exam #1 = 59	Statement of Assignment Topic = 4
Exam #2 = 59	Ohio Gang Survey = 12
Exam #3 = 59	Writing Assignment = 35
	Poster Assignment = 17

***Extra Credit (Perfect Attendance) = 8*

Attendance: If you have perfect attendance at the end of the quarter, you will receive 8 extra credit points for the course. Attendance is taken twice every class session (before and after we take our break). You can only receive the extra credit if you attend both parts of every class. Having one or more absences (**excused or un-excused**) eliminates the possibility of earning the 8 extra credit points. Finally, it is *your* responsibility to make sure that you have signed both attendance sheets each day.

Advice for doing well in this course: I strongly suggest that you do the following:

- I. Complete the reading before each class*
- II. Take good notes*
- III. Form study groups with others in the class*
- IV. Meet with me during office hours (especially if you have questions or problems)*

Important Dates:

January 3:	1st day of class
January 21:	Last day to drop a class without a 'W'
January 26:	Exam #1
January 31:	Ohio Gang Survey Due
February 9:	Statement of Case Study Project Topic Due
February 16:	Exam #2
February 18:	Last day to drop a class with a 'W'
March 7:	Case Study Project Due
March 9:	Poster Due
March 16:	Exam #3

Class Policies:

Classroom Etiquette: Many of us have passionate feelings about the topics covered in this course (which is a good thing). It is therefore crucial for our class sessions to be comfortable and conducive to learning for all participants. While discussion and open debate are fundamental components of this class, it is imperative that everyone gets treated with respect. Keep in mind that we can learn a lot about our own views by *listening* to the views of those with whom we disagree. So, with this said, ***disrespectful or threatening behavior towards others in our class will not be tolerated!!***



****Please be sure to turn your pagers and cell phone ringers off before class begins****

Exam Make-Ups: Exam dates are firm. If you miss an exam, you can make it up only if you contact me before the time of the exam *and* provide a legitimate excuse supported by written documentation.

Assignments: Due dates for the Assignments are firm. Written components of your assignments must be stapled, typed, and double-spaced. Emailed assignments and assignments turned in on computer disk will not be accepted under any circumstances. Assignments turned in late will be penalized significantly: **5 points** are subtracted for each day an assignment is late. **Please note that assignments that are not submitted in class on the due date are considered to be late and will be docked late points accordingly.** *Please be sure to save back-up files of all your work on a computer disk, just in case an assignment gets misplaced.*

Arriving Late: I will begin class promptly at 9:30 a.m. each morning. Please plan to arrive on time. You run the risk of missing out on important class announcements if you are late, and you are also likely to disrupt the class. If you are unable to make it on time, please enter through the rear door as quietly as possible and take special efforts to avoid distracting others (including me). Thank you.

Leaving Early: I ask that you please refrain from leaving class early. Leaving prior to the end of class is a distraction to me, and more importantly, to other students. If you must leave early, please inform me before class and sit near the door to limit the amount of disruption caused by your departure. We will take a break each class session, during which you will have the opportunity to leave early should you need to do so.

Academic misconduct: Students should take the necessary steps to avoid the appearance of academic misconduct during exams and within submitted written assignments. Faculty Rule # 3335-5-54 requires "Each Instructor...[to]...report to the committee on academic misconduct all instances of what he or she believes may be academic misconduct"

**Please refer to the Sociology 294 section on my webpage and the OSU Code of Student Conduct for more information on what constitutes academic misconduct.*

Sensitive Topics: You should be forewarned that, depending on your background, some of the topics covered in this class might make you feel uneasy or uncomfortable. For instance, you may read about gang members perpetrating acts of murder, drug use, racism, and sexual violence. Unfortunately, these realities sometimes extend from gang activity. It is therefore necessary for us to examine these types of topics in some detail if we are to ultimately gain a better understanding of the gang problems that we as a society face.

Special Needs Students: *This syllabus is available in alternative formats upon request to students with disabilities. Please contact the Undergraduate Academic Counselor, Department of Sociology, 304 Bricker Hall, 292-2056. Students with disabilities are responsible for making their needs known to the instructor, and seeking available assistance, in a timely manner.*



Student Colleagues: Your classmates have the potential to provide you with help and support, and knowing them makes attending class pleasant and more enjoyable. In the spaces below, please write down the first and last names of three other students in the class (include phone numbers at your own discretion).

1. _____
2. _____
3. _____

Sociology 294: Class/Reading Schedule, Winter 2005

(Classes are structured based on the assumption that you have done the reading BEFORE each session)

[RR] = Reserve Reading

[UG] = Understanding Street Gangs

[HA] = Hell's Angels

[AR] = Always Running

[DD] = Do or Die

Week 1

JANUARY 3 - MONDAY: First Day of Class; Orientation to the course; [RR #1]

Introduction: A Brief History of Youth Gangs

JANUARY 5 - WEDNESDAY: Introduction to the Sociology of Gangs; [RR #1] Introduction: A

Brief History of Youth Gangs (continued)

Week 2

JANUARY 10 - MONDAY: What is a gang? Street Gangs vs. Other Gangs

[UG] Introduction to Part I (pp. 1-3); [UG] Chapter 1: Theoretical Considerations (pp. 5-18);

[UG] Chapter 2: Gangs Defined and Perspectives of Gang Activity (pp. 19-29)

JANUARY 12 - WEDNESDAY: Biker Gangs; [HA] Chapters 1-11 (pp. 3-129)

Week 3

JANUARY 17 - MONDAY: Martin Luther King Jr. Day – No Class!

JANUARY 19 - WEDNESDAY: Biker Gangs (Continued); [HA] Chapters 12-22 & Postscript (pp. 130-

273); [RR #2] Women in Outlaw Motorcycle Gangs

(JANUARY 21st is the last day to drop a course without getting a 'W' on your record)

Week 4

JANUARY 24 - MONDAY: Prison Gangs; [RR #3] The Brand: How the Aryan Brotherhood Became The Most Murderous Prison Gang in America; Optional Review for Exam #1

JANUARY 26 - WEDNESDAY: EXAM #1 (over UG ch. 1-2, HA ch. 1-22, RR #'s 1-3)

Week 5

JANUARY 31 - MONDAY: The Social Contexts of Street Gangs; [RR #4] Race in the Hood; [RR #5] Neighborhood Networks and Crime; *Ohio Gang Survey Due Today*****

FEBRUARY 2 - WEDNESDAY: Structure & Activities of Gangs; [UG] Chapter 3: Gang Structure and Organization (pp. 31-58); [UG] Chapter 4: Gang Communication (pp. 59-83)

Week 6

FEBRUARY 7 - MONDAY: Gangs: Racial & Ethnic Differences; [AR] Preface & Chapters 1-3 (pp. 3-79)

FEBRUARY 9 - WEDNESDAY: Chicano Gangs; [AR] Chapters 4-6 (pp. 80-159; *Statement of Case Study Topic Due Today*****



Week 7

FEBRUARY 14 - MONDAY: Chicano Gangs (continued); [IC] Chapters 7-10 & Epilogue (pp. 160-251); Optional Review for Exam #2

FEBRUARY 16 - WEDNESDAY: EXAM #2 (over UG ch. 3-4, AR ch. 1-10, RR #'s 4-5)

(FEBRUARY 18TH is the last day to withdraw from a course - with a 'W' on your record)

Week 8

FEBRUARY 21 - MONDAY: African American Gangs; [DD] Preface & Chapters 1-6 (pp. 3-139)

FEBRUARY 23 - WEDNESDAY: African American Gangs (Continued); [DD] Chapters 7-11 & Afterword (pp. 143-277)

Week 9

FEBRUARY 28 - MONDAY: Female Gang Members; [RR #6] Gender Strategies in Youth Gangs

MARCH 2 - WEDNESDAY: What can we do about Gangs? Law Enforcement; [UG] Introduction to Part II (pp. 87-88); [UG] Chapter 5: Measurement of Gang Violence (pp. 89-92); [UG] Chapter 6: The Gang Unit (pp. 93-106); [UG] Chapter 7: Police Patrol Procedure (pp. 107-113); [UG] Chapter 8: Techniques of Gang Investigations (pp. 115-136)

Week 10

MARCH 7 - MONDAY: Addressing the Gang Problem: Going Beyond Law Enforcement; [RR #7] Denial, Overreaction, and Misidentification: A Postscript on Public Policy; Optional Review for Exam #3; *Case Study Project Due Today*****

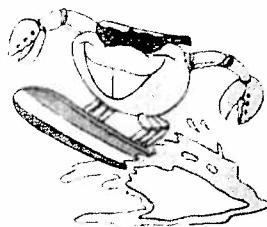
MARCH 9 - WEDNESDAY: Last Day of Class; Poster Session; *Poster Due Today*****

Finals Week

MARCH 16 - WEDNESDAY: EXAM #3 (over UG ch. 5-8, DD ch. 1-11, RR #'s 6-7)

EXAM #3 is at 9:30-11:18 a.m. - 3/16/05

Spring Break!



Sociology 410
Criminology
OSU, Winter, 2005
Professor Richard J. Lundman

Prof. Lundman's Office & Hours:
388 Bricker: F 10 to noon
& by appt.
Office Phone: 292-2110
Email = lundman.1@osu.edu - please use
email to initially contact me - thanks.

STUDENTS WITH DISABILITIES, PLEASE NOTE:

The student must contact the Office of Disabilities in 150 Pomerene Hall (292-3307) to make arrangements for assistance in this course.

Students with documented disabilities are responsible for making their needs known to the instructor and seeking available assistance in a timely manner.

This syllabus is available in alternative formats on request from the Sociology Advising Office in 304 Bricker Hall (292-2056).

Thank you.

Also please note: Guests are always welcome in our class at any time. If someone wants to come to our class with you or if you want someone to come to class with you, bring them. They are always welcome.

Overview. Class material directs attention to crime, criminals, and, along the ways, criminal justice. Reading material directs attention to criminal justice workers and therefore to police departments and cops, jails and jail staff, courts and prosecutors, and prisons and prison staff.

Required Readings and Class Materials. Four books are required and they are available in bookstores: 1) Charles Moose, *Three Weeks in October: The Manhunt for the Serial Sniper*. Dutton, 2003; 2) John Irwin, *Jail: Managing the Underclass in American Society*. University of California Press, 1985; 3) Taryn Simon, Peter Neufeld, and Barry Scheck, *The Innocents*. Umbrage Press, 2003; and 4) Donald Cabana, *Death At Midnight: The Confession of an Executioner*. Northeastern University Press, 1998. **In addition, you will need to buy a course packet from the Cop-Ez Center in the Tuttle Parking Garage (near the University Bookstore). We will use this packet on a near daily basis so it really will be to your advantage to have it.**

Course Outline

<u>Dates</u>	<u>Lecture Topics</u>	<u>Reading</u>
1/3	Introduction to Course/Professor/	Moose, all
1/5-1/12 (M 1/17 is a holiday in honor of Dr. King's birthday)	Crime	Moose, all

		1/3-1/18
1/24-2/2	Crime (continued)	Irwin, all
2/7	EXAMINATION 2	Irwin, all; classes and recitations, 1/24-2/3
2/9-2/21	Criminals	Simon, all
2/23	EXAMINATION 3	Simon, all; classes and recitations, 2/9-2/22
2/28-3/9	Criminals (continued)	Cabana, all
Final Exams Week	EXAMINATION 4 Monday 3/14, 11:30-1:18	Cabana, all; classes and recitations, 2/28-3/10

The exam will likely take place in the East Ballroom of the Ohio Union, so plan on that location unless I announce to the contrary. Please check Registrar's Web Site (<http://www.ureg.ohio-state.edu> to verify exam day and time. Thanks.

Evaluation. There will be four examinations during the quarter (see above for dates) and all take place in our classroom. The examinations are not cumulative. Each exam will have a total of 50 points available and will cover lecture and reading/recitation materials equally (ie., 25 lecture points on each examination and 25 reading/recitation points on each examination). Questions on each exam will be of four types: multiple choice, fill in the blank, true-false, and short essay. Your final grade is based upon total performance across all four exams, with 200 points available on the four exams. Total points will be added and a final grade assigned after all four examinations have been taken according to the following cutting points: 180 or above = A; 160-179 = B; 140-159 = C; 120-139 = D; and less than 119 = E. Except for extreme and verifiable emergency, make-up examinations will not be offered. Attendance will be taken in Recitation five times during the quarter and students present all five times attendance is taken will be boosted up to the next higher grade if total points are within five points of that next higher grade. For instance: if after all four exams, a student has 175 total points and five for five on attendance, that student is boosted up to 180 total points and an A for the course. Students four of five boosted up four if within four. Three or less than five, no boost.

Lecture and Recitation Attendance. Half of the total points on each examination will be based upon reading/recitation materials. Because reading materials are not covered (I do not profess from the readings) in class but are partially covered in recitation along with additional information, you will not do well in this class without regular lecture and recitation attendance.

x:crim.out

Course Syllabus

Sociology 507 Criminal Justice Systems Fall Quarter 2005 Ohio State University

Instructor: Dr. Edward Rhine
Work: Office of Policy and Offender Reentry
Department of Rehabilitation & Correction

Office Phone: (614) 563 - 3794 (c)
(614) 292 - 6687 (f)

Office Hours: Tuesday & Thursday Evenings: 7:30 p.m. – 9:00 p.m.
Townsend Hall – Room 0247

E-Mail Address: erhine3997@aol.com

Course Time: 5:30 p.m. – 7:18 p.m.
Tuesdays and Thursdays

This material is available in alternative formats upon request. Please contact an advisor in our Undergraduate Services at 292-1175.

I will do my best to assist you in the course. However, students with disabilities are responsible for making their needs known, and seeking the available assistance in a timely manner.

Course Description

This course will offer a sociological exploration of crime, and the criminal justice system in the United States. A wide variety of topics will be covered, including the history, philosophy and contemporary context of justice system processes, shifting patterns and trends relative to adult offending and crime, the application of the “rule of law” versus the exercise of discretion across key phases of criminal justice processing and adjudication, current trends affecting policing, and issues confronting criminal sentencing and the imposition of punitive sanctions on offenders. Special emphasis will be placed on the operation of correctional systems, probation, and parole. The various areas of operation addressed in class lectures will be subject to critical review. The course will conclude by looking ahead to how changing cultural sensibilities relative to crime will likely impact on the punishment of criminal offenders in the 21st century.

An important objective of the course is to provide a “hands-on” view of the criminal justice system “in action.” A tour of an adult correctional facility has been arranged to give students an opportunity to meet with prison staff and observe offenders who are “locked-up,” as well as to gain some appreciation of what correctional policies and programs look like in everyday practice. In addition, an “Ex-Offender Panel” will be convened in class to provide an interactive forum relative to the issues associated with prisoner reentry.

Required Readings

There are two assigned books, and a special report on crime and justice in Ohio all of which you are expected to read in full during the quarter. The required readings are listed in the "Overview of Lecture Topics" provided below. The books are available through the OSU bookstores, and will be placed on reserve at the main library. The special report will be distributed in class.

George F. Cole & Christopher E. Smith. 2005. *Criminal Justice in America*. 4th Edition. Thomson-Wadsworth. Belmont, California.

Michael Tonry. 2004. *Thinking About Crime: Sense and Sensibility in American Penal Culture*. Oxford University Press. New York, New York.

Office of Criminal Justice Services. 2004. *State of Crime and Justice in Ohio*. Office of Criminal Justice Services. Columbus, Ohio.

Course Requirements

The final grade for the course will be based on a mid-term examination, a final examination and two announced quizzes. Each of the two examinations is worth 100 points for a total of 200 points. Both exams will consist of multiple choice, true-false, fill-in-the blank or matching questions, and short answer essays. The exams will draw from the assigned chapters and articles, material covered during class lectures, any videos shown in class, and presentations by invited speakers. The second examination will not be comprehensive. It will, of necessity, build on what has already been discussed in the readings and in class, but cover classroom material and readings assigned after the first exam.

Each of the two quizzes is worth 50 points for a combined total of 100 points. The quizzes will consist of multiple-choice questions, true-false questions, and concept identification. Each quiz will cover previous class lectures and reading assignments, including the assigned reading for the class on the date on which it is scheduled. *A bonus essay question will be included on each quiz allowing the student to earn up to 10 extra credits. You do not need to complete the essay. However, students who complete the*

essay and achieve perfect scores on both quizzes may earn a maximum of 20 bonus points. These points will be added to the total score obtained by the end of the course.

The highest total score a student may obtain based on the two exams and two quizzes is 300 points. The determination of final grades will be based on the distribution of scores, and adhere strictly to university policy governing cutoff scores for obtaining an A, A-, B+, B, B-, C+, C, C-, D+, D, D-, E.

The class lectures will cover only some of the material contained in the chapters that are assigned. *Other information not included in the assigned readings will be presented during class lectures. You are responsible for the subject matter in each of the assigned chapters and for any material discussed during class lectures. It is your responsibility to obtain any lecture notes you may not have from another student in class.*

Make-up examinations will be given only to students who have a valid, documented excuse for medical or other personal emergencies. The make-up exam must be taken within one week after the scheduled examination.

Academic Integrity

All university policies governing drop dates, penalties, plagiarism, and academic integrity, as addressed in the university bulletin, student handbook(s), and/or undergraduate time schedule, will be observed. I assume that students will be honest. However, cheating on exams or quizzes will not be tolerated. I will follow university policies and procedures applicable to any such conduct.

Class Attendance and Participation

You are expected to attend class and participate in class discussions. Class attendance will be taken. You are also expected to attend a tour of a correctional facility on the date it is scheduled. I expect students to read the assigned chapter(s) before class and to come prepared to discuss the concepts and issues that are raised. Students who do not attend class regularly typically do not perform well in the course.

There is no extra credit that may be earned during or after the quarter is completed. You are responsible for staying current with the readings, and for coming prepared to take the quizzes and exams. You are encouraged to contact me at any time to discuss your understanding of the material. I will gladly meet with you and provide assistance to enhance your mastery of the course content throughout the quarter.

OVERVIEW OF LECTURE TOPICS AND ASSIGNED READINGS

DATES

TOPICS AND ASSIGNED READINGS

September 22	Overview of Course <u>No Readings</u>
September 27	The Criminal Justice System: A History of the Present <u>Readings:</u> Cole & Smith: Chapter 1 OCJS: "Introduction" & "History of Crime and Criminal Justice"
September 29	Criminal Justice in Operation: Process & Major Components <u>Readings:</u> OCJS: "Citizen Attitudes"
October 4	Criminal Justice, Social Order and the Rule of Law <u>Readings:</u> Cole & Smith: Chapter 3
October 6	Making Empirical Sense of Crime & Crime Trends in the U.S. <u>Readings:</u> Cole & Smith: Chapter 2 OCJS: "Crime"
October 11	Making Empirical Sense of Crime & Crime Trends in the U.S. (Continued) <u>Readings:</u> OCJS: "Offenders," and "Victims"
October 13	Policing: Mission, Models & Functions <u>Readings:</u> Cole & Smith: Chapters 4 & 5 OCJS: "Law Enforcement" <i>***Quiz At End of Class***</i>
October 18	Constitutional & Civic Accountability in Policing <u>Readings:</u> Cole & Smith: Chapters 6 & 7
October 20	The Judiciary: Jurisdiction, Structure & Process <u>Readings:</u> Cole & Smith: Chapter 8 OCJS: "Courts"

October 25	<i>MID-TERM EXAMINATION</i>
October 27	The Court in Action: Pre-Trial to Trial <u>Readings:</u> Cole & Smith: Chapter 9
November 1	The Courtroom Trial: Symbol, Drama & Substance <u>No Readings</u>
November 3	Sentencing, Punishment & the Imposition of Criminal Sanctions <u>Readings:</u> Cole & Smith: Chapter 10 OCJS: “Corrections”
November 8	<i>Tour of Correctional Facility</i> (Further Information Will Be Provided in Class Prior to Date of Tour) <u>No Readings</u>
November 10	Community-Based Corrections: Issues & Trends <u>Readings:</u> Cole & Smith: Chapter 12 *** <i>Quiz At End of Class</i> ***
November 15	Prisons in America: Reform versus Retribution: <u>Readings:</u> Cole & Smith: Chapters 11 & 13
November 17	Returning Home: Prisoner Reentry, and Parole <u>Readings:</u> Cole & Smith: Chapter 14
November 22	<i>Ex-Offender Panel on Reentry</i> (Further Information Will Be Provided in Class) <u>No Readings</u>
November 24	No Class! Thanksgiving Holidays!
November 29	Sense and Sensibility in Thinking About Crime <u>Readings:</u> Tonry: Chapters 1 Through 6
December 1	Sense and Sensibility in Thinking About Crime <u>Readings:</u> Tonry: Chapters 7 & 8 OCJS: “Future of Crime and Justice” <i>Review for Final Exam!</i>
December 6	<i>FINAL EXAM</i>

HAVE A VERY HAPPY HOLIDAY SEASON!!!

2004

Speech & Hearing Science 320--Principles of Phonetics

Winter Quarter, ~~2002~~ 5 credits

Instructor: Julia Tevis McGory, Pressey Hall
email: mcgory.1@osu.edu; telephone: 292-8207
Office hours: 2:30-3:30 (Classroom)

Primary Lectures:		MTWR	1:30- 2:18	Arps 387
Recitation Sections:	18665-8	F	12:30-1:18	Parks 0550
	18666-3	F	1:30-2:18	Parks 0157

This is a course describing the principles and fundamental nature of *phonetics*, especially as it applies to the field of speech-language and hearing science. It will involve both general and specific theories and facts in phonetics as well as the development of practical skills (e.g., phonetic transcription skills). Topics covered will include, but will not be limited to, symbolic representation of speech sounds; basic speech anatomy; laryngeal anatomy and physiology; and discussions of speech production and speech perception. A large portion of the course is designed to acquaint you with transcription techniques utilizing the International Phonetic Alphabet (IPA) and a significant portion of your course grade will depend upon your ability to understand and utilize the IPA.

There will be two (2) midterms exams each of which will count 150 points. A detailed study guide will be provided prior to each exam. There will be no makeup exams given *without a valid excuse* (such as a note from your doctor; there will be **no** exceptions)—an unexcused missed midterm will be graded 0% and will be counted in determining your final grade. There will be four quizzes given during recitation on the dates indicated on this syllabus. There will be no quizzes in the week before an exam or the week in which an exam is given. These quizzes may involve phonetic transcription as well as fill-in-the-blank questions. These quizzes are designed to help you learn the material. Each quiz will be worth 25 points for a total of 100 points. There will be no make-up quizzes and an unexcused missed quiz will be graded 0% and will be counted in determining your final grade. In special circumstances, if you know that you will miss a recitation during which a quiz is given, you may request that you take it during another recitation time. The final exam will be comprehensive (although there will be some emphasis on the material covered during the last two weeks of the quarter) and worth a total of 200 points. A portion of the final exam will be a transcription test.

Your final course grade will be based on the following:

<i>2 Midterms (worth 150 points each)</i>	300
<i>Quizzes (four worth 25 points each)</i>	100
<i>Final Exam</i>	
Transcription portion	50
Multiple choice portion	<u>150</u>
<i>Total possible points</i>	600

Letter grades are based on the standard ranges, e.g., 93-100% A, 90-92% A-, 87-89% B+, 83-86% B, 80-82% B-, etc. Everyone must take the final exam.

There are two texts for this course. (P. Ladefoged, *A Course in Phonetics-Fouth Edition*). It is particularly useful for the information about general phonetics, relevant speech anatomy, and the nature of speech sounds found across different human languages (and the phonetic variations therein). A second text (Harold Edwards and Alvin Gregg, *Applied Phonetics Workbook*) will be used in the transcription portion of the course, primarily during recitation. It was originally designed to be used in conjunction with another phonetics textbook, but I prefer Ladefoged's book. When there are differences in approach or material between the two books, I will explain the differences in class lecture. There will also be a set of auditory tapes (see details below) produced by the authors of the *Applied Phonetics Workbook* (APW). We will cover most, though not all, of each of these texts. Please note, that it is to your benefit to complete all of the practice exercises provided in Edwards & Gregg, even though we may not cover them all during transcription lecture.

Don't put off learning phonetic transcription until the end of the course; try to improve your transcription skills each week!

Note: **I encourage students to ask questions during lectures as well as during recitations, please do so!** Let us know what you are having difficulty with. If you are having problems, it's almost certain that others are as well. Phonetics is a very different way of looking at speech than most of you are accustomed to.

Academic misconduct: Faculty members are encouraged to acknowledge in their course syllabus Ohio State's guidelines on academic misconduct. These guidelines require that "each instructor shall report to the Committee on Academic Misconduct **all** instances of what he/she believes to be academic misconduct." Details about what constitutes academic misconduct can be found in the *Student Handbook*, page 17. Contact me if you have any questions. Note: Academic misconduct is a serious matter, with serious consequences. Plagiarism is a serious offense as is providing or obtaining help during exams. In addition, note that all homeworks (which are graded and contributed to your course grade) should be completed on an individual basis and not as a group project. However, please note that studying for an exam as a group is not only allowed—I encourage it. I treat possible instances of academic misconduct quite seriously!

An alternative version of the course materials (including the syllabus) can be made available if needed and upon request.

In the following course outline, I have indicated the readings and exercises required for each week of lectures and transcription/recitation sessions. I will pass out exercises to be completed in the Instructional Computer Laboratory sessions on a separate handout.

Course Outline

Week 1	Sept.22-24	Introduction to the course and the nature of phonetic transcription; basic speech anatomy; introduction to the International Phonetic Alphabet (IPA) and phonetic symbol variations
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- Readings: Ladefoged, Chapter 1;
Recitation: APW Section 1
- Week 2 Sept 27-Oct 1 Symbolic Representation of Sounds: International Phonetic Alphabet (IPA)
Readings: Ladefoged, Chapters 1 & 2;
Recitation: APW Section 2
Quiz 1
- Week 3 Oct 4-8. Morphology, phonology and phonetics; distinction among different type of transcription; distinctive vs. nondistinctive differences in speech sounds and different uses of transcription; consonants in English, coarticulation

Readings: Ladefoged, Chapters 2 & 3;
Recitation: APW, Section 3
- Week 4 Oct. 11-15. English consonants (continued), introduction to English vowels

Readings: Ladefoged, Chapters 3 & 4
Recitation: APW, Sections 4
Quiz 2
- Week 5 Oct. 18-22. English vowels (cont.); English stress and rhythm

Readings: Ladefoged, Chapter 5
Recitation: APW, Section 5
- Week 6 Oct. 25-29 Airstream mechanisms, laryngeal anatomy and physiology, theories of phonation

Readings: Ladefoged, Chapter 6, pp. 113-125
Recitation: APW, Sections 6
- *****
First Midterm Exam, Tuesday, Oct. 26
Chapters 1, 2, 3, 4, 5, & 6 (113-125)

- Week 7 Nov 1-5. Phonation types, voice-onset time, diacritics.

Readings: Ladefoged, Chapter 6, pp. 125-132, Chapter 7
Recitation: Section 7
Quiz 3
- Week 8 Nov. 8-12. Diacritics; variations in place and manner across languages

(“the rest of the IPA”)

Readings: Ladefoged, Chapter 9
Recitation: APW, Section 8
Quiz 4

Week 9 Nov. 15-19. Continue Chapter 9, Review for Midterm II

Week 10 Nov. 22-24 Syllables and suprasegmental features.

Readings: Ladefoged, Chapters 10

Second Midterm Exam, Tuesday Nov. 23
Chapters 6, 7, 9, 10

Week 11 Nov. 29-Dec.3 Introduction to acoustic phonetics.

Readings: Ladefoged, Chapters 8
Recitation: **Transcription Portion of the Final Exam**

SENIOR (Only) FINAL EXAM
Time and Place to be announced

Finals Week Dec. 6-10.

FINAL EXAM
Wed, Dec. 8 11:30 - 1:18 PM

Note: The University has determined this exam time—there will be no early exams given at alternative times (except for graduating senior). Also, given the University concern about the prevention of academic misconduct at all levels (student, teacher, researcher) you will be required to bring your student ID card to the final examination. You will be allowed to take the final exam only upon presentation of a valid picture ID card (University ID, Driver’s License, State of Ohio Identification Card, etc.) to the proctor(s) of the examination.

INTRODUCTION TO SPEECH SCIENCE
Speech and Hearing 420
Spring 2005

Instructor: Marios Fourakis

Main Campus Office: Journalism 329 , Office hours 11:15 AM - 12:15 PM Tues. - Thurs.

West Campus office: Pressey 101A, Office hours 12:00-1:00 PM Wed.

West Campus phone: 292-3076.

If you cannot make any of these hours, talk to me before or after class to set up a special appointment.

NOTICE: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible about their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292 3307, TDD 292 0901; on the web at <http://www.ods.ohio-state.edu>.

Required Text:

Ferrand, Carole T. 2001. Speech Science, Boston: Allyn and Bacon (Henceforth CTF).

Course description and objectives:

This course is designed to acquaint students with the anatomy and physiology of the speech producing mechanism and with the physical characteristics of the product of this mechanism, i.e. of the sounds that speakers produce when they wish to communicate their ideas orally. At the end of the course students are expected to have relatively detailed knowledge of the structures of the human body involved in respiration, phonation, and articulation as these three comprise the human speech production mechanism. In addition, they will know in detail the acoustic characteristics of the consonants and vowels of American English.

Grading: There will be six quizzes during the quarter, on select days as indicated in the course outline below starting with the second week of classes. All quizzes and exams will be comprehensive (more on this during first lecture). The lowest quiz score will be dropped. Grades will be based on performance in the five remaining quizzes, the midterm, and the final examination. The final will be given on the date and time listed in the schedule of classes (**Thursday June 9, 11:30 am - 12:18 pm**). The total number of points will be 400 as shown below:

Final:	155 pts
Miterm	120 pts
Quizzes (5x25 pts each)	125 pts

Final grade points	400/4

Letter grades will then be assigned on the basis of the final grade points as follows: 93-100 A, 90-92 A-, 87-89 B+, 83-86 B, 80-82 B-, 77-79 C+, 73-76 C, 70-72 C-, 66-69 D+, 60-65 D, and 0-59 E. Final grade points containing decimals will be rounded to the closest integer. Thus, for example, 89.75 will become 90, while 89.25 will become 89.

Academic misconduct. Academic misconduct is a serious matter and will not be tolerated. Ohio State's guidelines require that "each instructor shall report to the Committee on Academic Misconduct all instances of what he/she believes to be academic misconduct." Details about what constitutes academic misconduct can be found in the Student Handbook.

Course outline by week, topic, and assigned readings:

- Week 1.** Organization - Syllabus – Introduction to.
Mar 29 -31 Speech science – Begin respiration
- Week 2.** Respiratory Anatomy and Physiology – Clinical Applications.
April 5 – 7 **CTF Chapters 4 - 5.**
- Week 3.** Respiration finished.
April 12 - 14 Begin Phonatory System.
CTF Chapter 6. Quiz 1 on Tuesday. ***
- Week 4.** Continue Phonatory System.
April 19 - 21 Clinical Applications.
CTF Chapter 6,7, AND 2!!. Quiz 2 on Thursday. ***
- Week 5.** Begin Articulatory System -
April 26 - 28 Quiz 3 on Thursday ***
- Week 6.** Finish articulation
May 3 - 5 **CTF Chapter 8.**
MIDTERM on Thursday. ***
- Week 7.** Begin acoustic characteristics – **Review parts of CTF Chap. 1.**
May 10 - 12
- Week 8.** Finish Acoustics.
May 17 - 19 Begin Clinical Applications.
CTF Chapter 9. Quiz 4 on Thursday. ***
- Week 9.** Speech perception and clinical applications.
May 24 - 26 Parts of **CTF Chapter 10, 11.** Quiz 5 on Thursday. ***
- Week 10.** Theories of production and perception.
May 31 – June 1 **CTF Chapter 12.** Quiz 6 on Thursday. ***

Final Exam: Thursday June 9, 11:30 am - 12:18 pm. The final will be comprehensive.

General remarks: Feel absolutely free to ask questions during class. I do not, repeat, **NOT**, mind interruptions. Also feel free to talk to me at any time after or before class. If my office hours are not convenient for you, talk to me before or after class and make an appointment. Have a good quarter!

Textiles and Clothing 371 Course Syllabus Spring Quarter 2006

TXTL&CLO 371 Textiles 5 credits

Instructor: Dr. Kathryn A. Jakes

Office: 245 Campbell Hall

Telephone: 292-5518

E-mail: jakes.1@osu.edu

Office Hours: 10:30- 12, Monday, Wednesday, Friday

Lecture: 21 Lazenby building, 8:30-10:18 Tuesday, Thursday

COURSE DESCRIPTION

Description of fiber, yarn and fabric characteristics, textile coloration and finishes; explanation of good textile choices for specific end uses; laundering and care of textiles and clothing; new fibers, fabrics and industry trends. This is a course in textiles that gives the student the fundamental language to be able to understand fabrics in today's clothing and interiors industries.

COURSE OBJECTIVES

1. Identify selected fibers, yarns and fabric constructions, finishes, and methods of color and design application.
2. Identify methods of yarn and fabric formation.
3. Identify the inherent physical and chemical properties of generic groups of fibers, including the similarities and differences among the groups; specific properties and important differences of fiber variants within each group.
4. Identify the mechanical, aesthetic and functional effects of processing fibers, yarns and fabrics with selected coloration techniques and finishes.
5. Study the use and maintenance of textile products and the influence of different laundering and care products.
6. Identify labeling practices and legislation related to textile products and assess their importance to consumers, retailers and manufacturers.

COURSE POLICIES:

Attendance

1. Students are **expected to attend** all lectures. Attendance will be taken. Students are expected to be on time for class. Tardiness is disruptive to the class, as is early departure from class.
2. The grade of Incomplete (I) will be assigned only if an extended illness has prevented the completion of the course work, and the student has already completed a substantial portion of the work in the course. The student must initiate the request for the grade of incomplete. University policy requires that the incomplete grade be made up no later than the end of the sixth week of the following quarter.

3. Supplementary course materials are available through the Carmen form of the course. Because the lecture employs the same images as the printed lecture notes, purchase of these notes is recommended. Old quizzes are included in the resources section of Carmen but the content of the quizzes in this quarter may not be exactly the same. The course has been revised considerably so the old quizzes are provided as a study aid for you. By attending the lecture, you will know which subjects were discussed over the span of time since the last quiz, and the professor will explain the topics included on the quizzes as they are written.

4. Faculty Rule 3335-7-28, Repetition of Courses was revised, effective Summer 2000. Undergraduate students may repeat a course for credit upon the recommendation of the authorized representative of their enrollment unit. Students may repeat the course only once (additional repeats must be for audit) and the credit hours received will not be counted more than once toward meeting graduation requirements. It is important to note that both grades will appear on the student's record and both grades are used in computing the point-hour ratio, except as modified by the Freshman Forgiveness Rule #3335-7-271).

Examinations

1. Students are expected to take exams when scheduled. Failure to appear for an exam at the designated time and place will result in a zero grade. Make-up exams will be given only when all 3 of the following conditions are met: 1) the student notifies the instructor within 24 hours of the scheduled exam time, 2) the circumstances are justifiable and 3) the student presents proof of the circumstances. No more than one make up exam will be given to any one student.
2. Students are expected to take quizzes when scheduled. NO make-up quizzes will be offered. Five quizzes will be given and the lowest grade will be dropped. If a student misses a quiz for any reason, then that is the quiz that will be dropped from the total of 5 for calculating the total course points.
- 3.

Assignments

1. Any assignments that are turned in late will be docked on letter grade for every day late, including weekend days, regardless of reasons. Later assignments will not be accepted later than one week after the original due date. Take home yarn identification sets and take home swatch sets are due at 8:30 AM on the dates included in the calendar. Any sets that are turned in late will lose 10 points per day that they are late.

Grades

1. Grades will be posted using the Carmen grade sheets. If you notice that a grade is not recorded, or not recorded correctly, see or email one of the teaching assistants or the instructor immediately. You will have only one week after the grades are posted to notify us of errors or missing grades. If you have not notified us of the problem by that time, you forfeit your opportunity for investigation or grade change.

How to study for this course.

Extra course materials are available at the Carmen site. The course is also organized in manner similar to the textbook. When concepts might be unclear, the best first step is to read the appropriate material in the textbook. Expect to spend time studying for this class, making flash cards for review, visiting a fabric store for practical application, studying web sites on fibers and fabrics. **You should expect to spend at least 8 hours a week outside of class: this is a 5 credit course and requires outside study.** Bring the material to life by examining your clothing and clothing in stores, testing yourself on what you see. The material may be a whole new language to you, but as a student of textiles and clothing, it will become second nature to you as

you take further classes and as you work in the industry. Some students find that if they study in groups they learn more. There is no prohibition to studying in groups, although any assignments that are turned in should be the student's own work.

A unique way to study for this course- GO shopping!

Go to clothing stores and fabric stores, look at labels on the items as well as advertising that is displayed in the store. Don't forget to look in the household textiles area where sheets, towels and curtains are sold. All of these will provide useful examples of the information provided in class. The apparel has to have labels describing the fiber content, and in addition many stores explain features of the fabric as part of the advertising, such as thread count on sheets, or type of dyeing on garments ("pigment dyed").

Students with disabilities

Any student who feels he/she may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact the Office of Disability Services at 292-3307 in 150 Pomerene to coordinate reasonable accommodations for students with documented disabilities. "The student has the responsibility for making his/her accommodation needs known to the faculty... If a student with a disability does not request accommodations, the instructor of the class is under no obligation to provide accommodations."

Academic Misconduct

The Ohio State University policies concerning academic misconduct will be observed in this class. All work turned in must be the student's own including homework problems, swatch books, and research papers. Any instance of cheating* will be handled in accordance with Faculty Rule 3335-5-54, which requires that "Each instructor shall report to the committee on academic misconduct all instances of what he or she believes may be academic misconduct." Every effort will be made to help you be honest. The rest is up to you. *Cheating includes but is not limited to: giving or getting answers on tests, signing (or printing) another's name on a test, copying from another student's test, etc.

Academic misconduct statement

B) "Academic misconduct" is defined as any activity which tends to compromise the academic integrity of the institution, or subvert the educational process. Examples of academic misconduct include, but are not limited to:

- (1) Violation of course rules as contained in the course; syllabus or other information provided the student; violation of program regulations as established by departmental committees;
 - (2) Providing or receiving information during quizzes and examinations such as course examinations and general examinations; or providing or using unauthorized assistance in the laboratory, at the computer terminal or on field work;
 - (3) Submitting plagiarized work for an academic requirement. Plagiarism is the representation of another's work or ideas as one's own; it includes the unacknowledged word for word use and/or paraphrasing of another person's work, and/or the inappropriate unacknowledged use of another person's ideas;
 - (4) Falsification, fabrication, or dishonesty in reporting research results;
 - (5) Serving as, or enlisting the assistance of, a ringer or substitute for a student in the taking of examinations;
 - (6) Alteration of grades or marks by the student in an effort to change the earned grade or credit; and
 - (7) Alteration of university forms used to drop or add courses to a program, or unauthorized use of these forms.
- (C) All cases of suspected misconduct shall be reported to the committee. The committee also shall investigate cases of

lax or irregular examination methods and report findings to the vice president for Academic Affairs and provost. Students have the obligation to report suspected misconduct or irregular or lax examination methods.

BASIS FOR EVALUATION

Seven quizzes will be given each worth 40 points. The lowest grade will be dropped. If a student misses a quiz for any reason, this is the quiz grade that will be dropped. No make up quizzes can be given for any reason.

Six highest Quizzes	240
Midterm Examination	110
Take home yarn identification set	10
Take home swatch identification set	30
Final Examination	<u>140</u>
	500

Letter grades will be assigned according to this scale.

A	465-500	C-	350-364
A-	450-464	D+	335-349
B+	435-449	D	300-334
B	415-434	E	000-299
B-	400-414		
C+	385-399		
C	365-384		

Remember that Textile and Clothing majors must earn a grade of C- or better in order that this course be counted toward the degree. Students receiving a grade of D+ or lower are required to repeat the course the next time it is offered. You will not be allowed to enroll in T&C 571 if you do not have a C - or better in T&C 371.

Recommended Textbook:

Kadolph and Langford, Textiles, Ninth Edition, available at all bookstores

Required Materials:

The Textile Kit, ISIS edition, from Atexinc, available at all bookstores. This swatch set comes with a notebook, double stick tape and a pick glass. Swatches must be entered in swatch books according to directions provided in lecture, in the swatch kit itself, and online at atexinc.com, before the third week of class. Swatch sets will be used in class regularly beginning in the third week. They should be brought to each class along with the pick glass provided in the kit.

Jakes, K.A., TXTL&CLO 371: Lecture Notes

Available at COPEZ on Neil ave. Lecture notes will be available on Carmen but the purchased notes could be less expensive than printing from the web version of the class since the pages contain 3 Powerpoint slides per page. It is advisable to have a hard copy of the lecture notes to use to follow along in the lectures and to write additional notes.

LECTURE SCHEDULE

Kadolph and Langford

1	Introduction, Overview, Terminology	Ch. 1, 2
2	Fiber Properties, Fiber identification	Chapter 3, 21
	Fiber Identification: Microscopy, Burning	Behavior demonstrations in class
3	Cellulosic Fibers	Chapter 4
4	Protein Fibers, Fiber manufacturing	Chapter 5
5	Manufactured Fibers	Chapter 6,7
6	Nylon, Aramid,	Chapter 8
	quiz	
7	Polyester	Chapter 8
8	Acrylic, Modacrylic, Olefin, elastomers	Chapter 8,9
9	Yarn structure	Chapter 10,11
	quiz	
	Yarn Identification and Classification exercise in class and take home	
10	Yarn Spinning, Compound Yarns	Chapter 10,11
	Review session in class	
11	Midterm	
12	Woven fabrics	Chapter 12, 13
13	in class exercise on woven fabric identification	
14	Knits	Chapter 14
15	in class exercise on knit fabric identification	
	quiz	
16	Nonwoven Fabrics, Compound Fabrics	Chapter 15
17	in class exercise on non woven fabric identification	
18	Fabric preparation	Chapter 19
	quiz	
19	Dyeing	Chapter 19
20	Textile Printing	Chapter 19
21	in class exercise on identification of dyeing and printing	
	quiz	
22	Textile Finishing	Chapter 16, 17
23	Finishes	Chapter 18
24	in class exercise on identification of finishes	
	quiz	
25	Textile Care, Legal concerns	Chapter 20, 21
26	in class exercise on labelling	
27	Textile Care	
	quiz	
28	textile quality and global trade	
29	Review Session in Class	

Quizzes cover the information provided in class, usually up to the lecture of the day prior to the quiz. The quiz content may not be exactly the same as the content of the sample quizzes in the resources section of Carmen.

Quizzes will be given every Friday from week 2 through week 9 except for week 5 during

which there is a midterm. Seven quizzes will be given, the lowest grade will be dropped.

Take home yarn set due date:

Take home Swatch sets due date:

FINAL EXAMINATION: covers second half of course from yarns to the end of the course.