

GRADUATE STUDENT HANDBOOK

Masters of Science in Forensic Science



www.forensic.msu.edu

COLLEGE OF SOCIAL SCIENCE
MICHIGAN STATE UNIVERSITY
EAST LANSING, MI

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MISSION STATEMENT

The mission of the Master of Science in Forensic Science Program at Michigan State University is to bring together the University's varied forensic science resources in order to provide a state of the art graduate level education in forensic science to outstanding students who have achieved a bachelors degree in a natural or physical science and who are highly motivated to enter a career in forensic science.

Goals and Objectives:

1. To take advantage of the many diverse forensic science faculty and laboratory resources available at MSU in order to develop an intellectual environment that will promote the growth of education and research in forensic science
2. To provide a hands-on, research-intensive experience for students that will better prepare them for a career in laboratory-based science
3. To facilitate the attainment of a comprehensive and contemporary Master of Science in Forensic Science degree by graduate students at MSU
4. To prepare graduate students for their future professional responsibilities and scholarly careers

PROGRAM OVERVIEW

Forensic science - the application of the methods of science to legal matters - is an exciting, complex and multidisciplinary program of study. In it one employs the principles of chemistry, physics, biology, and mathematics, as well as social science theory and law, to help solve crimes and serve justice. Forensic science offers students who have a bachelor's degree in a natural or physical science an opportunity to apply their knowledge to serve justice. The program includes courses in criminal justice, forensic science, and law. There are also opportunities for research experience and field study in a practicing forensic science laboratory.

Michigan State University has long been recognized as a premier institution for research and education in forensic science. The School of Criminal Justice administers the oldest continually functioning educational degree program in forensic science in the United States. Michigan State University is home to a number of excellent resources for the study of forensic science. The School of Criminal Justice maintains modern laboratory facilities containing equipment and instrumentation for the analysis of virtually any type of physical evidence, from lasers for the detection of fingerprints to equipment for the analysis of DNA.

The Forensic Science Masters program at Michigan State University is designed to give students a broad theoretical and practical background in the scientific, legal, and investigative aspects of forensic science while providing the opportunity to study one of the major disciplines in depth. There are three concentrations offered: Forensic Chemistry, Forensic Biology, and Forensic Anthropology. Students may enroll in only one concentration; however, they may indicate a first and second choice during the application process. A short description of each concentration follows.

Forensic Chemistry: Focus is on trace evidence, including glass, paint, soil, and fibers, drugs and alcohol, explosives, and arson evidence. Current research in the forensic chemistry lab ranges includes

developing methods for the detection of gunshot residue in tissue samples, investigating surface chemistries that affect fingerprint detection, and profiling illicit ecstasy tablets based on both the organic and trace metal impurities present. More information can be found at www.forchem.msu.edu.

Forensic Biology: Involves DNA analysis and serology. Research in the laboratory focuses on designing and perfecting techniques that help advance the fields of forensic biology and forensic molecular biology. We also strive to develop a better practical and theoretical understanding of methods currently used in state, federal and private forensic laboratories. Research encompasses both nuclear and mitochondrial DNA, and while the primary focus is on the human species, work is performed on trace evidence from domestic animals that may exist at a crime scene, and wildlife species that are endangered, threatened, or otherwise at risk. More information can be found at www.forbio.msu.edu.

Forensic Anthropology: Focus is on skeletal analysis, human identification, trauma, and evidence recovery.

Michigan State University's School of Criminal Justice has some of the most modern research and teaching forensic science laboratories in the country. Housed in the Chemistry Building, the Ralph Turner Laboratory Complex contains state-of-the-art equipment including gas chromatography-mass spectrometry, FTIR, capillary electrophoresis, HPLC, fluorescence spectrophotometer, and polarized light microscopy. Additional laboratory instrumentation is available in the chemistry department. The DNA laboratories, located in Giltner Hall, include PCR and genetic analysis equipment (ABI 310 and Beckman CEQ 8000 genetic analyzers), electrophoresis equipment, digital photography equipment, and multiple thermocyclers. The forensic anthropology labs, located in Fee Hall, are equipped with bench space for osteological exams, a stereozoom microscope, an image superimposition center, and a GE portable x-ray unit.

The laboratory headquarters of the Michigan State Police Forensic Science Division is conveniently located near the MSU campus. This full-service laboratory is available as a source of research resources and internship placements. Faculty in the School of Criminal Justice and elsewhere on the campus regularly consult with the state police and conduct joint research projects with the help of forensic science students.

Through its career development and internship offices, the School of Criminal Justice provides internship opportunities for forensic science students. Internships consist of a one-semester placement with a federal, state, or municipal forensic science laboratory. This opportunity provides students with a chance to learn firsthand how a crime lab works and how scientific analysis is carried out on physical evidence. Many interns carry out research projects under the auspices of laboratory personnel. Academic credit is awarded for successful completion of internship placement.

Although the Master of Science degree in Forensic Science is administered by the School of Criminal Justice (College of Social Science), several colleges and departments cooperate in offering this interdepartmental degree. These include the colleges of Agriculture and Natural Resources, Human Medicine, and Natural Science, as well as the departments of Anthropology, Biochemistry, Chemistry, Pharmacology and Toxicology, Radiology, Resource Development, Statistics and Probability, and Zoology. Also participating are the Center for Advanced Microscopy, the Genetics Program, and the Medical Technology Program.

PROGRAM COMPONENTS

The program of each student shall consist of a minimum of 32 semester credits of course work beyond the bachelor's degree and 6 credits of thesis research totaling a minimum of 38 semester credits. The student must submit and defend a thesis reflecting original research focusing on a significant problem or issue in forensic science. The oral defense and submission of the thesis must be completed within six years from the time of first enrollment as a masters student. The student will need to select a forensic science faculty advisor who will serve as the chairperson on the thesis committee.

DEGREE REQUIREMENTS

The Master of Science program in Forensic Science is available only under Plan A (with thesis). The student must complete at least 38 credits as follows:

	<u>Credits</u>
1. The following courses:	
CJ 804 Crime Scene Investigation	1
CJ 805 Survey in Forensic Science	3
CJ 817 Law and Forensic Science	2
2. One of the following concentrations:	
Forensic Chemistry	
CEM 832 - Mass Spectrometry	3
CEM 835 – Advanced Analytical Chemistry II	3
CJ 819 – Forensic Analysis of Drugs and Alcohol	3
CJ 820 – Forensic Chemistry and Microscopic Evidence	3
NSC 820 – Scanning Electron Microscopy/Energy Dispersive X-Ray Microanalysis	3
PHM 431 – Pharmacology of Drug Addiction	3
Electives chosen in consultation with an academic advisor	10
Forensic Biology	
BMB 801 – Molecular Biology	3
CJ 820 – Forensic Chemistry and Microscopic Evidence	3
CJ 824 – Forensic Serology	3
CJ 825 – DNA Profiling	3
FW 828 – Conservation and Genetics - or -	3
GEN 842 (FOR 842) – Population Genetics	3
STT 464 – Statistical Methods for Biologists I	3
Electives chosen in consultation with an academic advisor	10
Forensic Anthropology	
ANP 441 – Osteology and Forensic Anthropology	4
ANP 842 – Human Osteology	5
ANP 843 - Bioarchaeology	3
ANP 844 – Topics in Forensic Anthropology	4
Electives chosen in consultation with an academic advisor	8
3. FRS 899 – Masters Thesis Research	6
4. Attend at least one Masters Seminar Series lecture per semester	
5. Oral defense of thesis	

ADMISSION REQUIREMENTS

In order to apply to the program, students must have a bachelor's degree from an accredited institution in a major appropriate to the concentration sought, and have maintained a cumulative undergraduate GPA of at least 3.0. Potential applicants should be aware that the masters program is quite competitive and recent experience has been that successful applicants have undergraduate GPAs of 3.5 or higher. Examples of appropriate undergraduate majors are Chemistry, Biochemistry, or Chemical Engineering (Forensic Chemistry); Biology, Human Biology, Cell and Molecular Biology, Genetics, etc. (Forensic Biology); and Anthropology with an emphasis in Physical Anthropology (Forensic Anthropology).

In addition to all other application material, international applicants must submit TOEFL scores. Applicants must score at least 550 on the non-computer based TOEFL, with scores of at least 52 on each subsection of the exam. Those taking the Internet TOEFL must score at least 80 overall, with no subscore below 19 for reading, listening, and speaking; no writing subscore below 22. Students from primarily English-speaking countries may have this requirement waived at the discretion of the department and approval of the Graduate School.

Application forms and instructions may be found at www.forensic.msu.edu/appinstructions.html.

THESIS TIMELINE

A student's research plan should be formalized during the first year of study, in consultation with the student's thesis committee chair. Masters students must have a thesis proposal approved by their research advisor and on file by the end of their first spring semester. Students who do not meet this requirement will be unable to enroll in research credits. Students enrolled in a dual degree program (e.g. PhD in Chemistry and MS in Forensic Science) must have a thesis proposal approved by their research advisor and on file the semester before planning to enroll in research credits.

If a student's thesis committee chair is not a forensic science faculty member (this may occur if a student is pursuing a Masters in Forensic Science and a PhD in a related area), the coordinator of the student's concentration and the committee chair will need to review and approve the proposal. Once approved, the proposal should be signed by the committee chair and given to the graduate secretary to be added to the student's file. Students may not enroll in FRS 899 (Masters Thesis Research) credits without a thesis proposal on file.

THESIS PROPOSAL

The proposal should be approximately 3-5 pages long, and submitted to the student's thesis chair. It should include the following sections:

- Introduction to the problem, followed by a review of the 5-10 most important articles that describe what has already been done in this field and how they contribute to your work.
- Methods, materials and equipment to be utilized in the project.
- A rough timeline for the research, organized by blocks such as months, semesters, etc. Categories may include
 - Preliminary testing (e.g. feasibility studies)
 - Materials/supplies acquisition
 - Sample acquisition

Data collection (including subsections)
Data analysis
Thesis writing (plan on multiple drafts)
Thesis defense

- Expected results, and how they will influence current forensic science practices

THESIS COMMITTEE

The composition of the thesis committee will vary according to the concentration in which the student is enrolled. Each committee must contain at least three members. At least one must be a tenure stream member of the faculty of the forensic science program. Normally this would be the coordinator of the concentration (chemistry, biology or anthropology) in which the student is enrolled. Another must be a tenure stream faculty member from the School of Criminal Justice, who is not part of the forensic science program faculty. The third member of the thesis committee may be a faculty member drawn from the university or from a relevant discipline of the Michigan State Police forensic science division or other crime laboratory. This member must be approved by the forensic science program and the student. There may be additional members of the committee as described above.

An exception may be granted by the Dean of the Graduate School to allow a non-tenure stream faculty member or an Academic Specialist to serve on a Masters student's examination committee or as the thesis advisor. To request to have non-tenure faculty or academic specialists serve on your Graduate Student Committee, the following materials must be submitted together as a complete packet:

- Letter from Chairperson of the School of Criminal Justice, with supporting signature from the Dean of the College of Social Science, to the Dean of the Graduate School, requesting that the individual serve on any student committee in that department or for a specific student and why the person is appropriate (e.g. special expertise). Only in very special circumstances will a person be approved to serve as a chair for an individual students (not blanket approval). Please provide extra justification of service as a guidance committee chair.
- Letter from the individual summarizing his/her background and qualifications to serve as a member of a graduate student committee
- Copy of the individual's vita and individual's email address.
- Two letters of reference that speak to the person's qualification to serve on graduate student committees. One letter may be from an MSU faculty member, **but at least one letter must be from an external source.**

Submit total package to Interim Dean Judith Stoddart, The Graduate School, 466 W. Circle Drive, 2nd Floor, East Lansing, Michigan, 48824.

HUMAN RESEARCH PROTECTION PROGRAM

The Human Research Protection program is an Institutional Review Board (IRB). Federal and University regulations require that all research projects involving human subjects be reviewed and approved by an IRB **before initiation**. All forensic science thesis projects must receive UCRIHS approval, even those that do not have direct contact with human subjects (such as secondary data sources). Under the regulations, research is defined as a formal investigation designed to develop or contribute to

generalizable knowledge. A human subject of research is an individual (1) from whom an investigator obtains data or (2) about whom the researcher obtains confidential information.

Faculty and students must submit the proper forms when the research they will undertake will include actively gathering the data from human subjects as described above, and/or use of either current or established data of human subjects gathered at a previous time. Failure to do so could result in rejection of your thesis by the Graduate School. Before a graduate student begins any research project, the student should consult with his or her faculty advisor or chair of the guidance committee. For more information about the review process, contact the Human Research Protection office at 517-355-2180, irb@msu.edu, or go to 202 Olds Hall. You may also find information at <http://hrpp.msu.edu/>.

THESIS GUIDE

The student should obtain an up-to-date guide for the preparation of the thesis from the Graduate School, 118 Linton Hall, or <http://grad.msu.edu/etd/>. A final copy of the thesis must be submitted electronically to MSU via ProQuest/UMI; the department's copy must be hardbound. It is customary to provide the chairperson of the committee with a hardbound copy, and students should check with their other committee members to determine whether they would like informally bound (plastic cover, spiral bound) copies.

The target date for the **FINAL APPROVAL** of an electronic Thesis or Dissertation to the Graduate School for graduating the semester of that submission is FIVE working days prior to the first day of classes for the next semester. **Be aware that a submission via ProQuest does not mean that the document has been ACCEPTED.** The review process is interactive and final approval can take anywhere from a few hours to weeks, depending upon the extent of the necessary revisions and how diligent the author is when making the necessary revisions. **Graduation on the semester of the electronic submission is only guaranteed if the document is APPROVED on or before the target date for that semester.**

THESIS DEFENSE

The student must be enrolled in at least one credit the semester in which the thesis is defended. Particular attention must be paid to the university calendar for the scheduling of your defense and the submission of the final copy of the thesis to the Graduate School. Generally, the defense should not be scheduled during the summer semester. If you must defend at that time, obtain written consent from all committee members prior to May 1. Written consent implies that the committee members will be present at the defense.

When a date is scheduled, please be sure to allow time for revisions that may be necessary before the thesis is accepted. If a student intends to graduate during a particular semester, there should be at least three weeks between the date of defense and the last day of the semester.

APPLICATION TO GRADUATE

Students must *apply* to graduate. Applications are available at 150 Hannah Administration Building, or may be submitted electronically at www.reg.msu.edu under the Graduation/Honors menu. The application must be submitted by the first week of the semester in which the student plans to graduate. **Summer graduates should**

turn in their application by the first week of Spring semester. If graduation is denied, the student must reapply, as the application is not automatically forwarded to the following semester.

CHECKLIST FOR COMPLETION OF DEGREE

There are a number of things students should consider when preparing to graduate.

- Be enrolled in at least one credit the semester in which the thesis is defended. Students do not need to be enrolled the semester in which they graduate.
- Apply to graduate the first week of semester in which you intend to graduate (this may be done online at <http://www.reg.msu.edu/StuForms/GradApp/GradApp.asp>).
- Check with graduate secretary to make sure all requirements have been met, and that all necessary forms have been signed and forwarded to the appropriate offices. Please do this early in the semester.
- Visit <http://grad.msu.edu/etd/> for information about formatting and submitting your thesis. Graduation and commencement information can be found at <http://commencement.msu.edu/>.
- Determine date and time of defense, and confirm with all committee members. Notify the graduate secretary so she may assist in reserving a room and any necessary equipment (laptop, LCD projector) for the defense.
- Defend thesis and complete any required revisions.
- Submit hardbound copy of thesis to graduate secretary
- Submit thesis electronically via ProQuest/UMI at www.etdadmin.com/grad.msu. Please see deadlines at <http://grad.msu.edu/etd/dates.aspx>.

EXIT SURVEY

A short online exit survey for all students graduating with a Plan A or Plan B masters or with a Doctoral degree was introduced in May 2011. Only students who have applied for graduation will have access to the survey. The survey asks questions about educational experiences in MSU graduate programs, as well as about immediate professional plans. The Graduate School uses data from this survey when reviewing graduate programs and to guide decisions about services and initiatives for graduate students.

The identity of all respondents will be kept confidential and only aggregate (group) information will be made available to faculty and administrators. The students will receive an e-mail message from the dean of the graduate school with a link to the survey. However, students do not need to wait for that e-mail message to complete the survey after applying for graduation. It takes about 5-10 minutes to complete the online survey. Below are the instructions for completing the survey and they are also available from <http://grad.msu.edu/etd/>

Instructions for students:

- Access the following website:
 - Doctoral Students: <https://www.egr.msu.edu/doctoral/survey/>
 - Master's Students: <https://www.egr.msu.edu/masters/survey/>
- Enter your MSU NetID (Login Name) and Password
- Complete all the items on the survey. When finished, click **Submit**.

If you cannot open this survey, please contact Katey Smagur by email at smagurka@msu.edu, and include your name, student ID #, degree level (PhD, MA/MS) and semester of graduation. You will then be notified when you are able to complete the survey.

DEPARTMENTAL POLICIES

ACADEMIC PERFORMANCE

Masters students must maintain a GPA of at least 3.0 throughout their program of study. The accumulation of grades below 3.0 (including N grades in the P-N grading system) in more than two semester courses of three or more credits each removes the student from candidacy for the degree. The student may also be removed from the program if they are not progressing at the appropriate rate.

GRIEF ABSENCE POLICY (as approved by University Council)

For master's (Plan A), master's (Plan B) with research responsibilities, and doctoral students, it is the responsibility of the student to: a) notify their advisor/major professor and faculty of the courses in which they are enrolled of the need for a grief absence in a timely manner, but no later than one week from the student's initial knowledge of the situation, b) provide appropriate verification of the grief absence as specified by the advisor/major professor and faculty, and c) complete all missed work as determined in consultation with the advisor/major professor and faculty. It is the responsibility of the advisor/major professor to: a) determine with the student the expected period of absence – it is expected that some bereavement processes may be more extensive than others depending on individual circumstances, b) receive verification of the authenticity of a grief absence request upon the student's return, and c) make reasonable accommodations so that the student is not penalized due to a verified grief absence. If employed as a RA or TE, the graduate student must also notify their employer. Both employer and student will swiftly communicate to determine how the student's responsibilities will be covered during their absence. Graduate teaching assistants (TAs) should refer to the bereavement policy in the MSU GEU CBU Article 18. Students in the graduate professional colleges (CHM, COM, CVM, LAW) with their own grief absence policies are excluded from the above and should follow their own policies. Students who believe their rights under this policy have been violated should contact the University Ombudsperson.

INTEGRITY AND SAFETY IN RESEARCH AND CREATIVE ACTIVITIES

(an excerpt from the Guidelines for Integrity in Research and Creative Activities)

The conduct of research and creative activities by faculty, staff, and students is central to the mission of Michigan State University and is an institutional priority. Faculty, staff, and students work in a rich and competitive environment for the common purpose of learning, creating new knowledge, and disseminating information and ideas for the benefit of their peers and the general public. The stature and reputation of MSU as a research university are based on the commitment of its faculty, staff, and students to excellence in scholarly and creative activities and to the highest standards of professional integrity. As a partner in scholarly endeavors, MSU is committed to creating an environment that promotes ethical conduct and integrity in research and creative activities.

Innovative ideas and advances in research and creative activities have the potential to generate professional and public recognition and, in some instances, commercial interest, and financial gain. In rare cases, such benefits may become motivating factors to violate professional ethics. Pressures to publish, to obtain research grants, or to complete academic requirements may also lead to an erosion of professional integrity.

Breaches in professional ethics range from questionable research practices to misconduct. The primary responsibility for adhering to professional standards lies with the individual scholar. It is, however, also the responsibility of advisors and of the disciplinary community at large. Passive acceptance of improper practices lowers inhibitions to violate professional ethics.

Integrity in research and creative activities is based not only on sound disciplinary practice but also on a commitment to basic personal values such as fairness, equity, honesty, and respect. These guidelines are intended to promote high professional standards by everyone- faculty, staff, and students alike.

Integrity in research and creative activities embodies a range of practices that includes:

- Honesty in proposing, performing, and reporting research
- Recognition of prior work
- Confidentiality in peer review
- Disclosure of potential conflicts of interest
- Compliance with institutional and sponsor requirements
- Protection of human subjects and humane care of animals in the conduct of research
- Collegiality in scholarly interactions and sharing of resources
- Adherence to fair and open relationships between senior scholars and their coworkers

Please see <http://grad.msu.edu/researchintegrity/> for more information.

ACADEMIC GRIEVANCE HEARING PROCEDURES

Each right of an individual places a reciprocal duty upon others: the duty to permit the individual to exercise the right. The student, as a member of the academic community, has both rights and duties. Within that community, the student's most essential right is the right to learn. The University has a duty to provide for the student those privileges, opportunities, and protections which best promote the learning process in all its aspects. The student also has duties to other members of the academic community, the most important of which is to refrain from interference with those rights of others which are equally essential to the purposes and processes of the University. (GSRR Article 1.2)

The *Michigan State University Student Rights and Responsibilities (SRR)* and the *Graduate Student Rights and Responsibilities (GSRR)* documents establish the rights and responsibilities of MSU students and prescribe procedures to resolve allegations of violations of those rights through formal grievance hearings. In accordance with the SRR and the GSRR, the School of Criminal Justice has established the following Hearing Board procedures for adjudicating graduate student academic grievances and complaints. (See GSRR 5.4.)

I. JURISDICTION OF THE SCHOOL OF CRIMINAL JUSTICE HEARING BOARD:

- A. The Hearing Board serves as the initial Hearing Board for academic grievance hearings involving graduate students who allege violations of academic rights or seek to contest an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records). (See GSRR 2.3 and 5.1.1.)
- B. Students may not request an academic grievance hearing based on an allegation of incompetent instruction. (See GSRR 2.2.2)

II. COMPOSITION OF THE HEARING BOARD:

- A. The Program shall constitute a Hearing Board pool no later than the end of the tenth week of the spring semester according to established Program procedures. Hearing Board members serve one year terms with reappointment possible. The Hearing Board pool should include both faculty and graduate students. (See GSRR 5.1.2 and 5.1.6.) Faculty serving as Undergraduate Coordinator, Graduate Coordinator, Associate Director, or Director in the School of Criminal Justice are not eligible to serve on the Hearing Board.
- B. The Chair of the Hearing Board shall be the faculty member with rank who shall vote only in the event of a tie. The Chair of the Hearing Board will be appointed by the Director. In addition to the Chair, the Hearing Board shall include an equal number of voting graduate students and faculty. (See GSRR 5.1.2, and 5.1.5.)
- C. The Hearing Board will consist of a minimum of 5 members (i.e., 1 faculty serving as chair, 2 faculty, 2 students).
- D. The Program will train hearing board members about these procedures and the applicable sections of the GSRR. (See GSRR 5.1.3.)

III. REFERRAL TO THE HEARING BOARD:

- A. After consulting with the instructor and appropriate unit administrator, graduate students who remain dissatisfied with their attempt to resolve an allegation of a violation of student academic rights or an allegation of academic misconduct (academic dishonesty, violations of professional standards or falsifying admission and academic records) may request an academic grievance hearing. When appropriate, the

Department Chair, in consultation with the Dean, may waive jurisdiction and refer the request for an initial hearing to the College Hearing Board. (See GSRR 5.3.6.2.)

- B. At any time in the grievance process, either party may consult with the University Ombudsperson. (See GSRR 5.3.2.)
- C. In cases of ambiguous jurisdiction, the Dean of The Graduate School will select the appropriate Hearing Board for cases involving graduate students. (See GSRR 5.3.5.)
- D. Generally, the deadline for submitting the written request for a hearing is the middle of the next semester in which the student is enrolled (including Summer). In cases in which a student seeks to contest an allegation of academic misconduct and the student's dean has called for an academic disciplinary hearing, the student has **10** class days to request an academic grievance to contest the allegation. (See GSRR 5.3.6.1 and 5.5.2.2.)
- E. If either the student (the complainant) or the respondent (usually, the instructor or an administrator) is absent from the university during that semester, or if other appropriate reasons emerge, the Hearing Board may grant an extension of this deadline. If the university no longer employs the respondent before the grievance hearing commences, the hearing may proceed. (See GSRR 5.4.9.)
- F. A written request for an academic grievance hearing must (1) specify the specific bases for the grievance, including the alleged violation(s), (2) identify the individual against whom the grievance is filed (the respondent) and (3) state the desired redress. Anonymous grievances will not be accepted. (See GSRR 5.1 and 5.3.6.)

IV. PRE-HEARING PROCEDURES

- A. After receiving a graduate student's written request for a hearing, the Chair of the Department will promptly refer the grievance to the Chair of the Hearing Board. (See GSRR 5.3.2, 5.4.3.)
- B. Within **5** class days, the Chair of the Hearing Board will:
 - 1. forward the request for a hearing to the respondent and ask for a written response;
 - 2. send the names of the Hearing Board members to both parties and, to avoid conflicts of interest between the two parties and the Hearing Board members, request written challenges, if any, within **3** class days of this notification. In addition to conflict of interest challenges, either party can challenge two hearing board members without cause (GSRR 5.1.7.c);
 - 3. rule promptly on any challenges, impanel a Hearing Board and send each party the names of the Hearing Board members. If the Chair of the Hearing Board is the subject of a challenge, the challenge shall be filed with the Dean of the College, or designee (See GSRR 5.1.7.). Decisions by the Hearing Board chair or the College Dean (or designee) on conflict of interest challenges are final;

4. send the Hearing Board members a copy of the request for a hearing and the respondent's written response, and send all parties a copy of these procedures.
- C. Within **5** class days of being established, the Hearing Board shall review the request, and, after considering all requested and submitted information:
1. accept the request, in full or in part, and promptly schedule a hearing.
 2. reject the request and provide a written explanation to appropriate parties; e.g., lack of jurisdiction. (The student may appeal this decision.)
 3. the GSRR allows the hearing board to invite the two parties to meet with the Hearing Board in an informal session to try to resolve the matter. Such a meeting does not preclude a later hearing. However, by the time a grievance is requested all informal methods of conflict resolution should have been exhausted so this option is rarely used. (See GSRR 5.4.6.)
- D. If the Hearing Board calls for a hearing, the Chair of the Hearing Board shall promptly negotiate a hearing date, schedule an additional meeting only for the Hearing Board should additional deliberations on the findings become necessary.
- E. At least **5** class days before the scheduled hearing, the Chair of the Hearing Board shall notify the respondent and the complainant in writing of the (1) time, date, and place of the hearing; (2) the names of the parties to the grievance; (3) a copy of the hearing request and the respondent's reply; and (4) the names of the Hearing Board members after any challenges. (See GSRR 5.4.7.)
- F. At least **3** class days before the scheduled hearing, the parties must notify the Chair of the Hearing Board the names of their witnesses and advisor, if any, and request permission for the advisor to have voice at the hearing. The chair may grant or deny this request. The Chair will promptly forward the names given by the complainant to the respondent and visa versa. (See GSRR 5.4.7.1.)
- G. The Chair of the Hearing Board may accept written statements from either party's witnesses at least **3** class days before the hearing. (See GSRR 5.4.9.)
- H. In unusual circumstances and in lieu of a personal appearance, either party may request permission to submit a written statement to the Hearing Board or request permission to participate in the hearing through an electronic communication channel. Written statements must be submitted to the Hearing Board at least **3** class days before the scheduled hearing. (See GSRR 5.4.9c.)
- I. Either party to the grievance hearing may request a postponement of the hearing. The Hearing Board may either grant or deny the request. (See GSRR 5.4.8.)

- J. At its discretion, the Hearing Board may set a reasonable time limit for each party to present its case, and the Chair of the Hearing Board must inform the parties of such a time limit in the written notification of the hearing.
- K. Hearings are closed unless the student requests an open hearing, which would be open to all members of the MSU community. The Hearing Board may close an open hearing to protect the confidentiality of information or to maintain order. (See GSRR 5.4.10.4.)
- L. Members of the Hearing Board are expected to respect the confidentiality of the hearing process. (See GSRR 5.4.10.4. and 5.4.11.)

V. HEARING PROCEDURES:

- A. The Hearing will proceed as follows:
 - 1. Introductory remarks by the Chair of the Hearing Board: The Chair of the Hearing Board introduces hearing panel members, the complainant, the respondent and advisors, if any. The Chair reviews the hearing procedures, including announced time restraints for presentations by each party and the witnesses, and informs the parties if their advisors may have a voice in the hearings and if the proceedings are being recorded. Witnesses shall be excluded from the proceedings except when testifying. The Chair also explains:
 - In academic grievance hearings in which a graduate student alleges a violation of academic rights, the student bears the burden of proof.
 - In hearings in which a graduate student seeks to contest allegations of academic misconduct, the instructor bears the burden of proof.
 - All Hearing Board decisions must be reached by a majority of the Hearing Board, based on a "clear and convincing evidence." (See GSRR 8.1.18.)

(See GSRR 5.4.10.1 and 8.1.18.) For various other definitions, see GSRR Article 8.)
 - 2. If the complainant fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may either postpone the hearing or dismiss the case for demonstrated cause. (See GSRR 5.4.9a.)
 - 3. If the respondent fails to appear in person or via an electronic channel at a scheduled hearing, the Hearing Board may postpone the hearing or, only in unusual circumstances, hear the case in his or her absence. (See GSRR 5.4.9-b.)
 - 4. If the respondent is absent from the University during the semester of the grievance hearing or no longer employed by the University before the grievance procedure concludes, the hearing process may still proceed. (See GSRR 5.3.6.1.)

5. To assure orderly questioning, the Chair of the Hearing Board will recognize individuals before they speak. All parties have a right to speak without interruption. Each party has a right to question the other party and to rebut any oral or written statements submitted to the Hearing Board. (See GSRR 5.4.10.2.)
6. Presentation by the Complainant: The Chair recognizes the complainant to present, without interruption, any statements relevant to the complainant's case, including the redress sought. The Chair then recognizes questions directed at the complainant by the Hearing Board, the respondent and the respondent's advisor, if any.
7. Presentation by the Complainant's Witnesses: The Chair recognizes the complainant's witnesses, if any, to present, without interruption, any statement directly relevant to the complainant's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the respondent, and the respondent's advisor, if any.
8. Presentation by the Respondent: The Chair recognizes the respondent to present, without interruption, any statements relevant to the respondent's case. The Chair then recognizes questions directed at the respondent by the Hearing Board, the complainant, and the complainant's advisor, if any.
9. Presentation by the Respondent's Witnesses: The Chair recognizes the respondent's witnesses, if any, to present, without interruption, any statement directly relevant to the respondent's case. The Chair then recognizes questions directed at the witnesses by the Hearing Board, the complainant, and the complainant's advisor, if any.
10. Rebuttal and Closing Statement by Complainant: The complainant refutes statements by the respondent, the respondent's witnesses and advisor, if any, and presents a final summary statement.
11. Rebuttal and Closing Statement by Respondent: The respondent refutes statements by the complainant, the complainant's witnesses and advisor, if any, and presents a final summary statement.
12. Final questions by the Hearing Board: The Hearing Board asks questions of any of the participants in the hearing.

VI. POST-HEARING PROCEDURES

A. Deliberation:

After all evidence has been presented, with full opportunity for explanations, questions and rebuttal, the Chair of the Hearing Board shall excuse all parties to the grievance and convene the Hearing Board to determine its findings in executive session. When

possible, deliberations should take place directly following the hearing and/or at the previously scheduled follow-up meeting. (See Section IV.D above.)

B. Decision:

1. In grievance (non-disciplinary) hearings involving graduate students in which a majority of the Hearing Board finds, based on "clear and convincing evidence," that a violation of the student's academic rights has occurred and that redress is possible, it shall recommend an appropriate remedy to the Department Chair or School Director. Upon receiving the Hearing Board's recommendation, the Department Chair or School Director shall implement an appropriate remedy, in consultation with the Hearing Board, within **3** class days. If the Hearing Board finds that no violation of academic rights has occurred, it shall so inform the Chair or Director. The Chair of the Hearing Board shall promptly forward copies of the final decision to parties and the University Ombudsperson. (See GSRR 5.4.11.)
2. In grievance (non-disciplinary) hearings involving graduate students in which the Hearing Board serves as the initial hearing body to adjudicate an allegation of academic dishonesty and, based on "clear and convincing evidence," the Hearing Board finds for the student, the Hearing Board shall recommend to the Department Chair or School Director that the penalty grade be removed, the Academic Dishonesty Report be removed from the student's records and a "good faith judgment" of the student's academic performance in the course take place. If the Hearing Board finds for the instructor, the penalty grade shall stand and the Academic Dishonesty Report regarding the allegation will remain on file, pending an appeal, if any, to the College Hearing Board within **5** class days of the Hearing Board's decision. If an academic disciplinary hearing is pending, and the Hearing Board decides for the instructor, the graduate student's disciplinary hearing before either the College Hearing Board or the Dean of The Graduate School would promptly follow, pending an appeal, if any, within **5** class days. (See GSRR 5.5.2.2 and 5.4.12.3)

C. Written Report:

The Chair of the Hearing Board shall prepare a written report of the Hearing Board's findings, including recommended redress or sanctions for the complainant, if applicable, and forward a copy of the decision to the appropriate unit administrator within **3** class days of the hearing. The report shall indicate the rationale for the decision and the major elements of evidence, or lack thereof, that support the Hearing Board's decision. The administrator, in consultation with the Hearing Board, shall then implement an appropriate remedy. The report also should inform the parties of the right to appeal within **5** class days following notice of the decision, or **5** class days if an academic disciplinary hearing is pending. The Chair shall forward copies of the Hearing Board's report and the administrator's redress, if applicable, to the parties involved, the responsible administrators, the University Ombudsperson and the Dean of The Graduate School. All recipients must respect the confidentiality of the report and of the hearing board's deliberations resulting in a decision. (See GSRR 5.4.12 and 5.5.2.2)

VII. APPEAL OF THE HEARING BOARD DECISION:

- A. Either party may appeal a decision by the Hearing Board to the College Hearing Board for cases involving (1) academic grievances alleging violations of student rights and (2) alleged violations of regulations involving academic misconduct (academic dishonesty, professional standards or falsification of admission and academic records.) (See GSRR 5.4.12.)
- B. All appeals must be in writing, signed and submitted to the Chair of the College Hearing Board within **5** class days following notification of the Hearing Board's decision. While under appeal, the original decision of the Hearing Board will be held in abeyance. (See GSRR 5.4.12, 5.4.12.2 and 5.4.12.3.)
- C. A request for an appeal of a Hearing Board decision to the College Hearing Board must allege, in sufficient particularity to justify a hearing, that the initial Hearing Board failed to follow applicable procedures for adjudicating the hearing or that findings of the Hearing Board were not supported by "clear and convincing evidence." The request also must include the redress sought. Presentation of new evidence normally will be inappropriate. (See GSRR 5.4.12.1, 5.4.12.2 and 5.4.12.4.)

VIII. RECONSIDERATION:

If new evidence should arise, either party to a hearing may request the appropriate Hearing Board to reconsider the case within **30** days upon receipt of the hearing outcome. The written request for reconsideration is to be sent to the Chair of the Hearing Board, who shall promptly convene the Hearing Board to review the new material and render a decision on a new hearing. (See GSRR 5.4.13.)

IX. FILE COPY:

The Chair of the Department shall file a copy of these procedures with the Office of the Ombudsperson and with the Dean of The Graduate School. (See GSRR 5.4.1.)

CAREER RELATED SERVICES

PLACEMENT SERVICES

Career Services and Placement (CSP), located in the Student Services Building, includes the Career Development Center and the Student Employment Office. CSP provides assistance to students and alumni planning careers and seeking jobs in business, industry, government, social services, and education. CSP conducts workshops on constructing resumes, interviewing, conducting job campaigns and related topics each week throughout the semester for students and alumni. A number of career fairs are sponsored during the year. A Summer Employment Fair is usually held in February. For information on these career fairs, check with Career Development Center staff in Room 6, Student Services Building.

CSP provides walk-in advising for quick questions regarding resumes, job searches, or careers at 113 Student Services. Walk-in appointments are limited to 15 minutes and available times may vary from semester to semester. Check for hours posted at 113 Student Services. Regular appointments may be made for more intensive advising on careers and job searches.

Student Employment Office staff help students find part-time and summer jobs on and off campus. All work-study positions are obtained through the Student Employment Office at 110 Student Services. Students must qualify for work-study through the Financial Aid Office before seeking work-study positions.

Registration with Career Development and Placement Service is encouraged for all graduating students. It is particularly important for those seeking employment or planning to continue their education. Students should register for job referrals and on-campus interviewing at the CSP website, <http://hrlr.msu.edu/careers/services.php>. Internet access and instructions for accessing the CSP website should be available in any campus computer lab.

SERVICE LEARNING CENTER

The Service Learning Center (SLC) provides opportunities for students to integrate academic work with meaningful community service. There are over thirty programs and more than 500 positions available to students. These positions help to meet established community needs in human service agencies, schools, health agencies, and government.

Students interested in gaining career-related experience through volunteering may contact SLC, complete an application, and interview for a position. Records of students' placements are maintained to verify students' experience. Students may request an SLC transcript. For more information, students should pick up a reference handbook available in Room 26, Student Services Building.

ACADEMIC IMPROVEMENT SERVICES

THE WRITING CENTER

The Writing Center at 300 Bessey Hall can provide assistance with any writing project at any stage. Writing center consultants can assist with selecting a topic, organizing ideas, editing a rough draft, or proofreading a final draft. Call 432-3610 for an appointment.

OFFICE OF SUPPORTIVE SERVICES

The Office of Supportive Services (OSS) was developed to provide academic support, tutorial services and a computer lab for students in need of additional academic support. These facilities and services are offered to students who meet eligibility requirements. The eligibility guidelines include College Achievement Admission

Program students (CAAP), handicapped students, minority students, students receiving federal financial aid, and/or students who have below a 2.5 MSU grade point average.

Services available at OSS include: tutorial assistance, a computer laboratory and special computer programs, skill-enrichment programs, graduate school planning assistance, Summer Research Opportunities for Minorities Students (SROP/McNair) scholarships, and Summer University Program Encouraging Retention (SUPER) programs. For more information about any of these programs, please contact the Office of Supportive Services at 209 Bessey Hall or by calling 353-5210.

CAMPUS RESOURCES

RESOURCE CENTER FOR PERSONS WITH DISABILITIES (RCPD)

The RCPD has staff specialists responding to mobility, visual, hearing, alternative learner concerns, and other handicapper populations, thus enabling their involvement in University activities. The RCPD office is located at 120 Bessey Hall and may be reached at 353-9642 (TTY: 355-1293). Services available are:

Volunteer Reading Services	Oral/Sign Interpreters
Taped Library	Transport Service (on-campus transport)
Optical to Tactile Converter	Environment Accommodation Info or Assistance
Talking Computer Terminal	Assistance in Housing Accommodations
TV Magnifiers	Personal Assistant Referral System
Enlarger/Copier	Student/Faculty Consultation
Kurzweil Reading Machine	Registration Assistance
Telecommunication Device for the Deaf	Campus Orientation

OFFICE OF MINORITY STUDENT AFFAIRS (OMSA)

OMSA coordinates a range of services and programs to help racial/ethnic minority students adjust and succeed at Michigan State University. They provide cultural programming, conferences, opportunities for student leadership, and student advocacy. For more information, you may visit OMSA at 338 Student Services Building, or call 353-7745.

COUNSELING SERVICES

The Counseling Center provides developmental and psychological counseling, including assistance in decision-making on immediate issues and long-range plans. Career, ethnic, self-management, sexual assault and substance abuse counseling are also provided. Special group counseling services are available and will be discussed during the initial meeting with the counselor. A Self-Management Laboratory provides resources for students considering self-directed behavioral changes. The Counseling Center has two locations on campus: one at 207 Student Services Building and one at 335 Olin Health Center. The respective telephone numbers are 355-8270 and 355-2310. Regular office hours are 8:00 a.m. to noon and 1:00 p.m. to 5:00 p.m., Monday through Friday at both locations. Walk-ins are seen for crisis counseling on Wednesdays, 10:00 to 11:00 a.m. and 2:00 to 4:00 p.m.

The Multi-Ethnic Counseling Center Alliance (MECCA), for minority students who wish to work with minority counselors, is located in 207 Student Services. MECCA assists students of all racial and ethnic groups who are experiencing cultural, social or personal conflicts.

The Sexual Assault Crisis and Safety Education program assists victims of rape/sexual assault and helps reduce such incidents in the University environment. An array of workshops, films and presentations are available upon request. Persons may contact the program coordinator in 207 Student Services. There is also a 24-hour crisis line available at 372-6666.

The Testing Office at 207 Student Services is not only a national test and testing information center, but also provides complete testing services for students working with counselors in the assessment of their personal attributes. Resources include interactive computer-based guidance systems that provide assistance in making informed major choices and career decisions. They can help gather information, explore options, and develop strategies for decision-making.

Major and Career Counseling with trained staff is available at both 207 Student Services and 335 Olin Health Center. Counselors assist in dealing with such issues as family pressures, issues of inadequacy, motivation, uncertainty concerning aptitudes and interests, or generalized problems in decision-making. Computer-based guidance systems are available on an appointment basis in these locations:

Career Development Center – 6 Student Services, 355-9510 ext. 335

Learning Resources Center – 204 Bessey Hall, 353-9089

Adult Services, Office of the Vice Provost for University Outreach

22 Kellogg Center, 353-0971

229 East Akers Hall, 353-6387

204 Bessey Hall, 353-9089

Counseling Center Self-Management Lab, 355-8270

Olin Counseling Center – 345 Olin Health Center, 353-5310

Main Library – Career Collection, no appointment necessary

GENERAL INFORMATION FOR FORENSIC SCIENCE MASTERS STUDENTS

ACADEMIC ADVISING

Faculty advisors are available to assist students with:

- Deciding courses and development of programs of study
- Selection of a second degree or additional major
- Review of degree requirements
- Planning annual enrollment
- Referral to other university resources
- Discussions of possible internships or overseas study experiences

Forensic Chemistry: Dr. Ruth Waddell Smith
506 Baker Hall
517-353-5283
rwsmith@msu.edu

Forensic Biology: Dr. David Foran
426 Giltner Hall
517-432-5439
foran@msu.edu

Forensic Anthropology: Dr. Todd Fenton Dr. Joseph Hefner
318 Baker Hall A420 Fee Hall
517-355-5190 517-432-6250
fentont@msu.edu hefnerj1@msu.edu

Internship Placement: Tim Homberg
130 Baker Hall
517-432-3197
hombert@msu.edu

ACADEMIC STANDARDS

A 3.0 cumulative grade point average for all courses counting toward the Masters degree is the minimum University standard. The accumulation of grades below 3.0 (including “N” grades in the “P-N” grading system) in more than two courses of three or more credits each removes the student from the degree program.

CAMPUS PARKING

Parking on campus during the day is extremely difficult, but after 6:00 p.m., parking permits are not required and parking is more available. During the day, parking is available in a commuter lot which has bus service to campus. To use this lot, you must register your car with the Parking and Safety Bureau. You will find parking and permit information at <http://police.msu.edu/management-services-bureau/parking-office/>, or you may call 517-355-8440, e-mail parkinfo@dpps.msu.edu, or go to 87 Red Cedar Road.

The City of East Lansing operates a parking ramp just off Grand River, which is within walking distance of campus. Their rates are reasonable.

CHANGE OF ENROLLMENT/REGISTRATION

Students who wish to drop and add courses after registration may do so through the fifth day of classes. To add courses after the fifth day, students must contact the department offering the course (after the fifth day, students may continue to drop courses through the middle of the semester). After mid-term, students may drop courses only with the permission of the dean of their college. Students are reminded to check the University Calendar in the *Quick Guide to Enrollment and Registration* each semester for important dates regarding dropping and adding courses. Fees charged for late enrollment and fees refunded for dropping courses are also listed in the *Quick Guide to Enrollment and Registration*.

CORRECTION OF GRADES

A student's grade may be changed only if the first grade is in error. The time limit for the correction of grades is 30 days after the start of a new semester. The Office of the Registrar reserves the right to audit student records and to correct them as necessary.

DEFERRED GRADES

Deferred grades are issued only to graduate students who are doing satisfactory work but cannot complete class requirements because of reasons acceptable to the instructor. The required work must be completed and a grade reported within two calendar years. If not completed within the time limit, the DF/Deferred will be changed to a DF/U, which indicates that the student did not complete the required work within the given time limit.

FREQUENTLY USED WEBSITES AND PHONE NUMBERS

Controllers Office (www.ctrlr.msu.edu) - Tuition and housing fees, fee payment schedule, deferred payment plan, etc. 517-355-3343 (Billing and Receivables)

Department of Police and Public Safety (www.police.msu.edu) - Police services, parking permits, campus crime statistics, visitor parking, etc. 517-355-8440 (Parking)

Financial Aid (www.finaid.msu.edu) - Instructions for applying for aid, forms, calendar, calculator, etc. 517-353-5940

Graduate School (www.grad.msu.edu) - Graduate education at Michigan State University, forms, assistantship information, financial aid, graduate student resources, etc. 517-355-0301

Housing (www.hfs.msu.edu/uh/) - Graduate housing, University apartments, housing rates, food service, residential rental options, etc. 517-355-9550 (University Apartments and Hall Assignments)

Michigan State University (www.msu.edu) - General information about Michigan State University, catalogs (*Academic Programs* and *Descriptions of Courses*), enrollment and registration, student organizations, student services, University policies and procedures, search site, etc.

Office for International Students and Scholars (www.oiss.msu.edu) - Admission, travel, immigration rules and regulations, scholarship and grant information, etc. 517-353-1720

Registrar's Office (www.reg.msu.edu) - Tuition, enrollment, financial aid, schedule of courses, University calendar, student services, etc. 517-355-3300

GRADUATE ASSISTANTSHIPS

Graduate assistantships are awarded on a competitive basis for incoming masters and doctoral students. All assistantships are dependent on the availability of funds. They may be renewed if funds are available and the student is making satisfactory progress toward the degree and has received satisfactory evaluations from the supervising faculty member.

Students receiving these awards provide support for the School's teaching and research. The graduate assistant's responsibilities require 10 hours per week for a quarter-time appointment, 20 hours per week for a half-time appointment, and 30 hours per week for a three-quarter-time appointment. Graduate assistants are provided a monthly stipend, a nine-credit tuition waiver for each semester the assistantship is held (five-credit tuition waiver for summer semester), with in-state tuition rates for any credits above those waived, and student health insurance. Matriculation fees are waived.

Graduate assistants are expected to be on campus during the length of the appointment. Days off should be discussed with the student's supervisor well in advance, and makeup time scheduled. Appointment dates will be as follows:

Fall Semester – August 16 through December 31

Spring Semester – January 1 through May 15

Summer Semester – May 16 through August 15

There are three levels of stipend rates, which are determined by University regulation.

- Level 1 requires that each of the following 3 criteria be met:
 - admitted MSU graduate student
 - bachelor's degree
 - less than two semester's experience as a graduate assistant or full-support fellow.
- Level 2 is required when each of the following 3 criteria is met:
 - admitted MSU graduate student
 - master's degree (a JD or LLB is equivalent to masters in determining level);
 - OR 30 or more grad semester credits or equivalent;
 - OR at least two semester's experience as a graduate assistant or full-support fellow.
 - level 3 required criteria have not been met
- Level 3 is required for Teaching (T) when each of the following 3 criteria is met:
 - admitted MSU graduate student
 - a master's degree or equivalent.
 - The graduate assistant experience must be in the employing unit or in a department considered relevant by the chairperson or employing unit. The minimum number of semesters shall be four (4), five (5) or six (6) but in any case no greater than department's current practice as stipulated in 2004
- Level 3 is required for Research (R) or Teaching (TE) assistants when each of the following 3 criteria are met:
 - admitted MSU graduate student.
 - successful completion of doctoral comprehensive exams, as defined by the department in which the student is enrolled
 - 6 semesters as a graduate Research/Teaching (R/TE) assistant at MSU, or equivalent. The definition of equivalence is left to the discretion of the chairperson of the appointing unit, but it is expected that only experience in research-oriented assignments count toward the 6 semesters of experience as an RA.

(Level 3 is not acceptable for Research (R) or Teaching (TE) unless all 3 criteria listed above are met.)

Checks are distributed on a biweekly basis. Changes in stipend or percentage of time become effective only at the beginning of a semester.

Support sources come in five main types:

- Teaching assistantships eligible to join the Graduate Employees Union (TA)
- Teaching assistantships not eligible to join the Graduate Employees Union (TE)
- Research assistantships (RA)
- MSU fellowships
- External fellowships

Student offered a teaching assistantship (TA) must decide whether to join the Graduate Employees Union (GEU). Please visit www.geuatmsu.org for more information about the GEU. The student will be given a card on which to indicate their decision at the beginning of the first semester in which they are eligible to join. Dues-paying TAs need only sign a GEU card once (unless they wish to change to paying fees) during their graduate careers. Fees-paying TAs need to sign a card once a year. *If a TA does not fill out a union card, the assistantship may be revoked.* TEs and RAs are not currently required to fill out this form.

Graduate assistants must be registered each semester in which they hold graduate assistantships. The minimum and maximum credit-loads are as follows:

1. For a quarter-time Masters graduate assistant, minimum enrollment is 6 credits (including credits in FRS 899); maximum enrollment is 12 credits (excluding credits in FRS 899).
2. For a half-time Masters graduate assistant, minimum enrollment is 6 credits (including credits in FRS 899); maximum enrollment is 12 credits (excluding credits in FRS 899).
3. For a three-quarter-time Masters graduate assistant, minimum enrollment is 3 credits (including credits in FRS 899); maximum enrollment is 8 credits (excluding credits in FRS 899).

A more detailed description of assistantship benefits and regulations may be found in Michigan State University's *Academic Programs*, Financial Aid for Graduate Students section (available at <http://www.reg.msu.edu/AcademicPrograms/Text.asp?Section=111#s353>), and the Graduate School website at <http://grad.msu.edu/funding/>.

Mandatory Training: All TAs and RAs must complete the on-line training about the Relationship Violence and Sexual Misconduct Policy. To Access the training, login to the ORA training website at: <http://goo.gl/pLh01o>. Click "Register," "Complete Registration" and then "Launch" to begin the Relationship Violence and Sexual Misconduct (RVSM) Policy - Faculty, Staff Training. (If it indicates that you have already registered, use "In Progress Training", then "Launch.>"). You will want to reserve approximately 30 minutes to complete all assignments. If you need assistance, contact the Helpdesk at 517-884-4600 or train@ora.msu.edu.

MSU NETID

MSU students receive centrally funded NetIDs so they can utilize various electronic resources and electronic mail. Students must activate their MSU NetID even if they already have another email account, as it is necessary to enroll in classes, check MSU email account, and log onto ANGEL and the student's account.

You will need your PID (Personal Identification Number) and your PAN (Personal Access Number) to activate your MSU NetID. Please visit www.netid.msu.edu for more information.

REQUIRED TRAINING AND IMMUNIZATION

Incoming Forensic Biology and Chemistry students must complete an online Chemical Hygiene and Laboratory Safety training at www.orcbs.msu.edu (choose Online Training to find the link). Incoming Forensic Anthropology and Biology students must complete the Bloodborne Pathogens training, which will be arranged early in the first semester of studies.

Hepatitis B immunization series is required of Forensic Anthropology and Biology students. The immunization series can be obtained at Olin Health Center. Please call 517-353-9763 with questions.

REQUIRED MASTERS SEMINAR SERIES

Students must attend and have record of at least one Masters Seminar Series lecture per semester. These may include invited guest speakers, departmental seminars and thesis defenses.

STUDENT IDENTIFICATION CARD

Identification cards may be obtained in 170 International Center and will be issued following the student's initial enrollment. Picture ID is required. Library privileges, access to University buildings, facilities and classrooms, and purchase of tickets and entry into athletic and entertainment events may require the possession and presentation of the ID card upon request. Information about the cards can be found at www.idcard.msu.edu.

TIME LIMIT

Although most students will take 2 years to complete the requirements for the Masters degree, the time limit for degree completion is six years beginning with the first semester in which credit is earned toward the degree.

TRANSFER CREDITS

As many as nine semester credits of graduate course work (excluding research and thesis credits) from accredited institutions with Masters programs may be transferred to a student's Michigan State University academic record, with approval of the program. The student must have received at least a 3.0 in the course and we must receive a course description, a syllabus, course transcript, and information which will assist in determining if the course(s) taken meet the course requirements in this program. A combination of graduate course work and MSU Lifelong Education credits can also be considered, not to exceed nine credits total. Please see the graduate advisor for procedures.

WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to withdraw from the university should contact the Office of Student Affairs, 201 Berkey Hall, in the College of Social Science. Students will be advised of the academic consequences of withdrawing and the method for applying for readmission. A "Voluntary Withdrawal" form must be completed and signed by the student. Students may withdraw from the university through the 12th week of the semester. A student may withdraw before the middle of the semester without a grade reported. Withdrawal after the middle of the semester through the 12th week of the semester will result in a grade being reported. Please check the university calendar for specific dates.

COURSE DESCRIPTIONS

ANP 441 – Osteology and Forensic Anthropology (4 credits) Human bone and skeletal biology and analysis. Methods of forensic anthropology. Analysis of skeletal remains, forensic pathology, and forensic archaeology. (Offered Spring of even years)

ANP 840 – Biocultural Evolution (3) Major contemporary issues in evolutionary theory, taxonomy, and the evolution of biology and culture. (Spring)

ANP 841 – Physical Anthropology (4) Controversies in biological anthropology. History of physical anthropology and current theoretical perspectives. Critical approaches to research design. (Spring of even years)

ANP 842 – Human Osteology (5) Human bone biology, skeletal anatomy, and osteological analysis. (Fall of even years)

ANP 844 – Topics in Forensic Anthropology (2) Survey of topics and current issues in forensic anthropology. Possible topics include facial reproduction and identification; laboratory techniques; skeletal histomorphology. (Fall)

ANTR 551 – Medical Gross Anatomy (6) Human regional gross anatomy with clinical correlations using prosections, cross-sections, medical imaging, multimedia and hypermedia. (Fall)

BMB 801 - Molecular Biology (3) Organization of genes. Regulation of gene expression, replication and recombination. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: forensic biology. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

CEM 835 - Advanced Analytical Chemistry II (3) Separations, molecular spectroscopy and mass spectrometry. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: analytical chemistry and instrumental methods. At the end of this course, students will be familiar with each of the objectives listed above. (Spring)

CJ 805 - Survey in Forensic Science (3) Scientific analysis of physical evidence. The course will cover four major aspects of physical evidence using real criminal and civil cases: generation of physical evidence by criminal activity; collection and preservation of physical evidence; analysis of physical evidence by forensic science laboratory; presentation of scientific expert testimony in court. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: crime scene investigation, physical evidence, law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods, drug chemistry and toxicology, forensic biology, and pattern analysis. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

CJ 817 - Law and Forensic Science (2) Course covers the legal aspects of forensic science including the adjudicative process, admissibility of scientific evidence, laboratory reports, hearsay, relevant course materials and expert testimony. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: law/science interface. At the end of this course, students will be familiar with each of the objectives listed above. (Spring)

CJ 819 - Forensic Analysis of Drugs and Alcohol (3) Techniques and processes in analysis of physical evidence including spectroscopy, chromatography, microscopy. Emphasis on controlled substances. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: physical evidence concepts, law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods, and drug chemistry and toxicology. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

CJ 820 - Forensic Chemistry and Microscopic Evidence (3) Analysis of trace evidence including hairs and fibers, paints and coatings, explosives and fire residues, glass and soil. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: crime scene investigation, physical evidence, law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods, microscopy, and pattern evidence. At the end of this course, students will be familiar with each of the objectives listed above. (Spring)

CJ 824 - Forensic Serology (3) Lectures and laboratory exercises in the identification of body fluids of forensic interest, including blood, semen, and saliva. Sources of false positive and negative results will also be examined. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: crime scene investigation, physical evidence, law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods, microscopy, forensic biology, and pattern evidence. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

CJ 825 - DNA Profiling (3) Lectures and laboratory exercises in DNA profiling. Nuclear and mitochondrial DNA analysis of blood, semen, hair, saliva, and other tissues of forensic interest. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: crime scene investigation, physical evidence, law/science interface, ethics and professional responsibilities, quality assurance, analytical chemistry and instrumental methods, and forensic biology. At the end of this course, students will be familiar with each of the objectives listed above. (Spring)

FRS 809 – Issues in Forensic Science (2-4) Forensic science research, practice, and legal practices. (Fall, Spring)

FRS 890 – Independent Study (1-6) Individual research and writing under faculty supervision. (Fall, Spring)

FRS 894 – Practicum (1-6) Observation, study, and work in selected forensic science agencies. (Fall, Spring, Summer)

FRS 899 – Masters Thesis Research (1-6) Planned research and writing directed by student's thesis committee. (Fall, Spring, Summer)

FW 828 - Conservation and Genetics (3) Population and evolutionary genetic principles applied to ecology, conservation, and management of species at the individual, population, and species level. May be taken in lieu of FOR 842. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: genetics. At the end of this course, students will be familiar with each of the objectives listed above. (Fall of even years)

GEN 842 (FOR 842) - Population Genetics (3) Population genetic processes underlying patterns of molecular genetic variation. Genealogical approaches to the study of genomic diversity, phylogenetic reconstruction, and molecular ecology. May be taken in lieu of FW 828. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: genetics. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

NSC 820 - Scanning Electron Microscopy/Energy Dispersive X-Ray Analysis (3) Use of scanning electron microscope and energy dispersive x-ray microanalysis. Machine variables, artifacts, quantitative analysis, specimen preparation, darkroom procedures. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: microscopy. At the end of this course, students will be familiar with each of the objectives listed above. (Fall, Spring)

PHM 431 - Pharmacology of Drug Addiction (3) Introduction to pharmacology and neuropharmacology. Understanding of the biological basis for drug abuse and addiction. Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: drug chemistry and toxicology. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)

STT 464 - Statistics for Biologists I (3) Biological random variables. Estimation of population parameters. Testing hypotheses. Linear correlation and regression (prediction). Analyses of counted and measured data to compare several biological groups (contingency tables and analysis of variance). Learning objectives encompass increased familiarity and expertise in the following forensic science curricular components: forensic biology and quality assurance. At the end of this course, students will be familiar with each of the objectives listed above. (Fall)