# Experimental Psychology

# 2013-2014 Graduate Program Handbook





Fall 2013/Spring 2014

#### Dear Incoming Student:

On behalf of the Experimental Psychology Program faculty and the Department of Psychology, I am happy to welcome you to Central Michigan University. This student manual is a guide for working your way through the Master's and Doctoral Program in Experimental Psychology. It is arranged in the approximate order of your progress through the program.

The Experimental Psychology faculty welcomes any questions you have about the Experimental Program, as well as suggestions you might have for improving this handbook.

Best wishes.

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#### **About This Handbook**

This handbook will provide an overview of the graduate programs in Experimental Psychology and their degree requirements. This handbook, however, is not intended to replace the *CMU Graduate Bulletin* and the faculty advisor. Thus, the student is expected to:

- a. Become familiar with the academic regulations of the university and the requirements of the specific program.
- b. Contact the advisor on a regular basis to keep informed of program requirements and to obtain general assistance in the completion of the program.
- c. Assume primary responsibility for complying with all regulations of the university, the College of Graduate Studies, and the department, and for meeting all requirements for the degree within the allowable time limits.

If you have any questions regarding the Experimental Psychology Program, please contact the program director.

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# **General Description**

The primary objective of the graduate programs in Experimental Psychology at CMU is to produce graduates who can demonstrate excellence in the broad arena of methodologies and general content so as to be prepared for doctoral training or research positions in the public or private sector.

The Experimental Program has the largest faculty membership of any graduate program within the Department of Psychology. The membership represents the complete spectrum of psychology including the areas of behavioral, physiological, developmental, social, clinical, personality, cognitive, legal, and statistics.

The program faculty members are committed to the traditional academic values of teaching and research. Many of the members have on-going research programs with substantial publication and presentation records, and many have obtained prestigious research grants. In addition, several indices (e.g., teaching awards, student ratings, alumni comments) indicate that many of the program faculty are excellent teachers.

Overall, the Experimental Program faculty are prepared for the opportunity and challenge of providing a quality education to our students. A collegial atmosphere exists where leading edge research is being conducted, discussed, and debated. This close student-faculty interaction has provided the foundation for the success of our program.

# **Experimental Core Faculty**

**Jane Ashby,** Ph.D., University of Massachusetts, 2006. Skilled word recognition, reading disabilities, neurocognition of reading and language, and reading development.

**Renee Babcock**, Ph.D., Georgia Institute of Technology, 1992. Life-span developmental psychology, cognitive aging, and cross-cultural differences in worry and stereotypes.

**Richard Backs,** Ph.D., University of Southern California, 1984. Human factors, psychophysiology, aging, attention, and emotion.

**Christopher Davoli**, PhD, Washington University, 2010. Perception, attention, visual cognition, embodied cognition, action, tool-use.

**Gary Dunbar,** Ph.D., Clark University, 1988. Behavioral neuroscience and stem cell and pharmacological treatment of brain damage and neurodegenerative diseases.

**Bryan Gibson,** Ph.D. University of Utah, 1991. Self-presentation, smoker-nonsmoker interaction, and psychology of gambling.

**Kyunghee Han,** Ph.D., University of Minnesota, 1993. **Director.** Cross-cultural psychology, quantitative methods, personality test/scale development and evaluation.

**Carl Johnson**, Ph.D., Michigan State University, 1979. Sleep disorders, applied behavior analysis, behavioral pediatrics, organizational behavior management

**Justin Oh-Lee**, Ph.D., University of California, 1995. Behavioral neuroscience, neuropharmacology, and molecular genetics in neurodegenerative disease such as Parkinson's and Alzheimer's.

Hajime Otani, Ph.D., University of Georgia, 1989. Human memory and cognition.

**Debra Poole,** Ph.D., University of Iowa, 1980. Basic language/cognitive/social development in children related to social issues and forensic psychology.

**Mark Reilly**, Ph.D., West Virginia University, 1996. Experimental analysis of behavior, operant/respondent conditioning, quantitative models, animal learning, behavioral pharmacology, and substance abuse.

**Michael Sandstrom,** Ph.D., Ohio State University, 1998. Brain plasticity, compensatory neuronal activity, and behavior associated with deteriorative diseases using animal models.

Kyle Scherr, Ph.D., Iowa State University, 2011. Social psychology/psychology and law.

**Roger VanHorn,** Ph.D., Iowa State University, 1969. Human development and developmental changes in cognitive and psychosocial processes.

# **Experimental Affiliated Faculty**

**Neil Christiansen,** Ph.D., Northern Illinois University, 1997. Personality in the workplace, personnel selection, and structural equation modeling in I/O psychology.

**Stephen Colarelli,** Ph.D., New York University, 1982. Personnel psychology, evolutionary psychology, and influences on the HRM utilization.

**George Ronan,** Ph.D., ABPP, Fairleigh Dickinson University, 1985. Personal problem solving, violence and aggression, and clinical research methodology.

# **Milestones in Completing Degrees**

# M.S. DEGREE

Year	Semester	Milestones
1	Fall	Begin Coursework (e.g., PSY 690 & PSY 511)
1	Spring	Begin M.S. Thesis Proposal  Submit Authorization of Degree Program-Graduate form
1	Summer	Continue Research
2	Fall	M.S. Thesis Proposal Approved Submit Prospectus form
2	Spring	Complete M.S. Thesis  Submit Plan A & B Completion Sign-off form

# ACCELERATED M.S. DEGREE

Year	Semester	Milestones
B.S. 4 / M.S. 1	Fall	Begin Coursework (e.g., PSY 690 & PSY 511)
B.S. 4 / M.S. 1	Spring	Begin M.S. Thesis Proposal  Submit Authorization of Degree Program-Graduate form
B.S. 4 / M.S. 1	Summer	Complete B.S. degree
M.S. 2	Fall	M.S. Thesis Proposal Approved Submit Prospectus form
M.S. 2	Spring	Continue work towards M.S. Thesis
M.S. 2	Summer	Complete M.S. Thesis Submit Plan A & B Completion Sign-off form

#### Ph.D. DEGREE

Year*	Semester	Milestones*
Begin Comprehensive Project		Begin Comprehensive Project
3	Fall	Submit 800 registration form
		Submit Authorization of Degree Program-Doctoral form
		Finish Comprehensive Project
3	Spring	Submit PSY 800 Completion form and copy of the approved
		project to Experimental Program Secretary, SL 139
3	Summer	Continue Research
4	Fall	Complete Dissertation Proposal
		Submit Prospectus form
4	Spring	Complete Doctoral Dissertation
		Submit Dissertation and Doctoral Project Completion
		Sign-off form

<sup>\*</sup> The milestones of the frist two years in the Ph.D. program is identical to those of the M.S. program.

Students also need to check with the College of Graduate Studies for deadlines to submit their Graduation Application. The College of Graduate Studies has developed a checklist for <u>Self Audit for Graduation</u> form for students to use to make sure that they complete all degree requirements and can submit all forms on time.

# M.S. in Experimental Psychology Program Description

The major goal of the program is to prepare students for doctoral training in psychology. In addition to preparing students for doctoral programs, the mission of the program also includes preparing students for research positions in the private and public sector. The program has been very successful, with many of its graduates completing doctoral degrees in psychology. Some of these individuals have attained national and international reputations in scientific psychology. In addition, the program has produced graduates who have become successful in other endeavors including administration, health and legal professions, and business and industry.

The faculty-student relationship is based on a mentoring system. All incoming students are required to be actively involved in research with a program faculty member throughout their program of study (typically two years). The mentoring system allows students to develop their research skills as well as develop close interpersonal and academic relationships with faculty. Finally, students are provided feedback regarding their progress in the program via evaluations by program faculty at the end of each academic year.

# M.S. Degree Requirements

The Master of Science degree in Experimental Psychology is based upon the satisfactory completion of a minimum of 36 semester hours of graduate work, including a thesis. The program is broad yet flexible enough to develop individual scholarship in the student's area of study. Each student is assigned to a faculty member who serves as the student's mentor/advisor. The mentor is responsible for monitoring the student's progress through the program particularly with respect to the development of research skills. Each student is required to be actively involved in research with his or her mentor. See the *Graduate Bulletin* for details at <a href="https://bulletins.cmich.edu/">https://bulletins.cmich.edu/</a> for course descriptions.

#### **Degree Requirements:**

Required Courses:			26	Cr.
	PSY 511	Statistics in Psychology	3	Cr.
	PSY 609	History and Systems of Psychology	3	Cr.
	PSY 690	Research Seminar in Experimental Psychology	2	Cr.
		(Taken each semester in the first year for total of 2 credits)		
	PSY 798	Thesis (with oral defense)	6	Cr.
		(See Committee Requirements on page 12)		
Selec		e course from each of the following four groups:		
	PSY 611	Research Design	3	Cr.
	PSY 612	Applied Multiple Regression and Correlation		
L	PSY 613	Multivariate and Correctional Methods		
	PSY 587	Physiological Psychology	3	Cr.
l	PSY 687	Physiological Foundations		
	PSY 589	Cognitive Psychology	3	Cr.
7	PSY 680	Learning		
Į	PSY 681	Sensation and Perception		
	PSY 624	Advanced Developmental Psychology	3	Cr.
{	PSY 630	Advanced Social Psychology		
Cogn	ate Course	s: To be chosen in consultation with an advisor.	0-6	Cr.
Cogn	att Course	5. 10 00 chosen in consultation with an advisor.	0-0	CI.
Elect	ives: To be	chosen in consultation with an advisor.	4-10	Cr.
In ad	dition to cou	ursework, a student must complete an oral examination over the	esis.	
T . 1	<u> </u>		2.5	C
Total	(mınımum	hours for first and second years)	36	Cr.

# Accelerated M.S. in Experimental Psychology Option

Advanced undergraduate students majoring in psychology who want to obtain additional training in experimental psychology may want to consider an option by which they can obtain their Bachelor of Science with the General Major in Psychology and their Master of Science in Experimental Psychology in five years. The accelerated program requirement is identical to the General Major in Psychology and to the Master of Science in Experimental Psychology; and allows the student to apply 12 credit hours of graduate coursework toward both their Bachelor of Science and Master of Science degrees.

To be eligible for the accelerated program, students must meet all of the admissions requirements for regular admission to the Master of Science in Experimental Psychology program and have completed at least 84 credit hours of undergraduate coursework, including all General Education, University Program, and competency requirements. It is expected that students will already be engaged in research with a faculty member prior to admission to the accelerated program.

The Accelerated Master of Science in Experimental Psychology program is a 12-month program. Students will complete the Bachelor of Science degree requirements and the first year of coursework for the Master of Science by the end of the summer term of their fourth year. Students will complete the coursework for the

Master of Science in conducting and defending their thesis by the end of the summer term of their fifth year. A sample curriculum for a student who has completed 84 credit hours of undergraduate coursework is given below. Undergraduate coursework completed beyond 84 credit hours would lead to conferral of the Bachelor of Science degree prior to the end of the summer term in Year Four.

# **Accelerated M.S. Sample Curriculum**

Year Four					
Fall	Spring	Summer	Degree		
PSY 511-3 hrs*	Graduate Requirement-3 hrs*	Undergraduate Courses-10 hrs	BS Degree		
Graduate Requirement-3 hrs*	Graduate Requirement-3 hrs*		Conferred		
PSY 690-1hr**	PSY 690-1 hr**				
Undergraduate Courses-9 hrs	Undergraduate Courses-9 hrs				
Total - 16 hrs	Total - 16 hrs	Total - 10 hrs			
	Year Five				
Fall	Spring	Summer	Degree		
Graduate Requirements-6 hrs	PSY 798-3 hrs	PSY 798-3 hrs	M.S. Degree		
Graduate Elective-3 hrs	Graduate Elective-3 hrs	Graduate Elective-4 hrs	Conferred		
Total-9 hrs	Total-6 hrs	Total-7 hrs			

<sup>\*</sup>Courses that apply to both the B.S. and M.S. Degrees. Required courses are (PSY 511, 609, [611 or 612 or 613], [587 or 687], [589 or 680 or 681], and [624 or 630]). Students must register for graduate credit for these courses.

# Ph.D. in Applied Experimental Psychology Program Description

The objective of the Ph.D. program in Applied Experimental Psychology is to develop individuals with strong applied experimental research skills for positions in academia, business, industry, allied health, or government agencies. The program is designed to provide advanced training in psychological processes (e.g., biological, cognitive, behavioral, social, personality), quantitative methodological procedures (e.g. statistics, experimental design, computer applications), and their utilization in an applied setting. The program provides students with special applied training, including a pre-doctoral internship. The program uses a mentor system, matching students with faculty members who have interest in closely related areas. The current areas of training include: human factors (ergonomics, psychophysiology, and attention and perceptual processes), behavioral medicine (with special emphasis on behavioral pediatrics, developmental disabilities, and infant sleep disorders), applied cognitive science (with special emphasis on memory, cognitive modeling, decision making, reading and language, visual cognition), applied social/personality psychology (social cognition, personality judgments, individual differences, attitudes, foresnsic psychology, and cross-cultural psychology), and applied behavioral neuroscience (with specific emphasis on testing potential pharmacotherapy's for neurodegenerative diseases, such as Huntington's and Parkinson's diseases).

Applicants to the Program are expected to have a baccalaureate degree, a minimum 3.0 GPA, and at least 15 hours of psychology. The foundation of the program is the M.S. Program in Experimental Psychology. The first two years of the program are identical to those of the M.S. Program in Experimental Psychology. Students accepted into the program must complete all of the requirements of the M.S. Program in Experimental Psychology or its equivalent. The emphasis in the third and fourth years are on advanced specialized training, including generating high quality applied research and gaining practical experience through internships.

<sup>\*\*</sup>Applies to the M.S. degree only.

# Ph.D. Degree Requirements

#### First and Second Years:

The requirements for the first two years in the Ph.D. program in Applied Experimental Psychology are identical to those required for the M.S. degree in Experimental Psychology.

#### Third and Fourth Years:

See the *Graduate Bulletin* for details at <a href="https://bulletins.cmich.edu/">https://bulletins.cmich.edu/</a> for course descriptions.

Required Courses:			36	Cr.
	PSY 789	Seminar in Applied Experimental Psychology	3-9	Cr.
	PSY 800	Research in Applied Experimental Psychology	12	Cr.
		(with major paper and oral examination)		
	PSY 898	Doctoral Dissertation: Design	3-12	Cr.
	PSY 899	Doctoral Dissertation: Implementation (with oral defense)	3-12	Cr.
		A minimum of 15 credit hours from the combination of PSY 898 and		
		PSY 899 is required. See Thesis and Dissertation Committee		
		on page 12.		
	Select one	of the following:		
	PSY 990	Internship A: Professional Services	6	Cr.
	PSY 991	Internship B: Professional Services	6	Cr.
Elec	Electives		12-18	Cr.
To	tal (minimu	m hours for third and fourth years)	54	Cr.

# **Comprehensive Examination**

The paper and oral examination from the PSY 800 project serves as the comprehensive examination. Papers are expected to be publication quality and typically consist of a literature review, method, results, and discussion section reporting the outcome of a year-long empirical research project conducted in collaboration with the student's mentor. Comprehensive Examination Committees must consist of two experimental faculty members with graduate faculty status. An optional 3<sup>rd</sup> committee member from the experimental faculty is allowed. The role of the committee is to evaluate the oral portion of the examination. **A copy of the approved paper must be given to the Experimental Program Secretary for the student's file.** The student must register for all 12 credit hours and pass the oral examination prior to admission to doctoral candidacy. Students cannot take more than 6 hours of PSY 800 until finished with thesis.

# **Internship Requirements**

Students should complete their 800 Project and pass an oral exam over the project and be admitted to the doctoral candidacy prior to beginning the doctoral internship (PSY 990-991). In addition, doctoral students should have an approved doctoral project proposal on file prior to beginning the doctoral internship.

#### Thesis and Dissertation Committee

Thesis committees must consist of three members each with graduate faculty status. Two members must be from the Experimental Core Faculty and the 3<sup>rd</sup> member must be a faculty member of the Psychology Department. An optional 4<sup>th</sup> member can be a faculty member from another department.

Dissertation committees must consist of four members each with graduate faculty status. Three members must be from the Experimental Core Faculty and the  $4^{th}$  member must be a faculty member of the Psychology Department. An optional  $5^{th}$  member can be a faculty member from another department.

#### **Thesis and Dissertation Proposal**

A Prospectus for Theses and Dissertations must be completed to begin research on a thesis or dissertation. Students must complete the following steps for their prospectus forms:

- 1. Email thesis/dissertation committee members to schedule prospectus meeting.
- 2. Email Program Secretary to schedule a room with date and time of prospectus.
- 3. Complete <u>Prospectus Form</u> prior to proposal meeting and get committee members signature at proposal meeting. A copy of the abstract must be turned in with the form to the Program Secretary.
- Complete online IRB or IACUC application online at: <a href="https://www.cmich.edu/office\_provost/ORSP/ComplianceandResearchIntegrity/Pages/default.aspx">https://www.cmich.edu/office\_provost/ORSP/ComplianceandResearchIntegrity/Pages/default.aspx</a> . ORSP will email you IRB or IACUC approval.
- 5. Forward IRB approval email to Program Secretary. Once, IRB approval is received, Program Secretary will get the required signatures, and forward to the Graduate Office.
- 6. After approval has been received from the College of Graduate Studies, the Program Secretary will bump you into your second set of thesis credits.

Students may not enroll for more than three thesis or dissertation credits until the project prospectus has been approved by the department and the College of Graduate Studies and the College of Graduate Studies has verified the composition of the student's committee. The *Graduate Bulletin* (<a href="https://bulletins.cmich.edu/">https://bulletins.cmich.edu/</a>) outlines all University policies relating to theses/dissertations.

# **Thesis and Dissertation Requirements**

The same principles generally hold for the master's thesis and doctoral dissertation. As a general concept, the doctoral dissertation, required of all doctoral students, will be related to the student's interests and to some aspect of professional practice. The goal of the doctoral dissertation is to further integration of the student's graduate education in developing the ability to investigate a professional problem in a scholarly manner. Students must have been admitted to doctoral candidacy by the College of Graduate Studies prior to defending their dissertation proposal.

A brochure outlining University procedures for thesis or doctoral dissertation preparation is available from the College of Graduate Studies and a handbook is available from the Psychology Department. The steps usually followed are:

- 1. Student discusses their idea with a faculty member.
- 2. Student obtains a chair and committee members.
- 3. Student writes a prospectus for committee approval. The prospectus includes the following topics:
  - a. Introduction to the problem (a case is made for the importance of the area of study)
  - b. Review of the literature
  - c. Statement of the problem
  - d. Method (as appropriate)
    - i. Participants or Sample
    - ii. Instrumentation/Materials
    - iii. Procedures
    - iv. Statistical Analysis
- 4. Student convenes the committee to discuss, fine tune, and approve/disapprove the idea.
- 5. Thesis and Doctoral Dissertation Prospectus form is filed with the graduate office and department. Also, approval from CMU's Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC), must be obtained before research involving human or animal subjects is started.
- 6. Thesis/Dissertation is completed.
- 7. Oral defense of project.
- 8. Students are expected to provide the Library, department, and their committee chairperson (unless they state otherwise) with a bound copy of the thesis or dissertation.

# **Thesis and Dissertation Research Support**

The College of Graduate Studies provides small grants for thesis and/or dissertation-related costs. Please see the application for specific details pertaining to the use of the funds. The information for these grants can be found at the following websites:

Graduate Student Research & Creative Endeavors Grant:

 $\frac{https://www.cmich.edu/colleges/cgs/GSNewandCurrentStudents/GSApplications and Forms/Documents}{/GradResearch.pdf}$ 

Dissertation Research Support Grant:

 $\frac{https://www.cmich.edu/colleges/cgs/GSNewandCurrentStudents/GSApplications and Forms/Documents}{/Dissertation\%20 support.pdf}$ 

#### **Academic Advisors**

Upon admission, each student is assigned a faculty advisor (mentor), who will serve as the student's academic advisor for the rest of that student's enrollment in the program. The advisor will also serve as a mentor for the student's research. At the end of each school year, the advisor will report to the Program Director regarding the student's progress on coursework as well as research involvement. A student may change his/her advisor by submitting a request to the Program Director.

# **Registration for Classes**

Students are encouraged to register for classes during Phase I registration to ensure course requests can be honored. The Psychology Department has no obligation to honor course requests when students fail to preregister and classes are full. In order to add a class after it has reached capacity enrollment, the department requires written permission from that instructor.

# **Policy on Degree Time Limits**

It is the program's policy that all course requirements for the M.S. degree be completed within seven years after matriculation and within eight years after matriculation for the Ph.D. degree. Both programs are full-time, campus degree programs. See the *Graduate Bulletin* for details at <a href="https://bulletins.cmich.edu/">https://bulletins.cmich.edu/</a>.

#### **Time Limit for Admission**

Admission is valid for one year (four semesters: fall, spring, summer I, summer II). If a student does not register for classes within one year after being admitted to the graduate college, the student is required to reapply before taking classes. The student's credentials are again reviewed by the department and the student may or may not be readmitted.

#### **Deferred Admission**

Newly admitted students may petition the Admissions Committee for deferred admission. Granting deferred admission is at the discretion of the Admissions Committee. However, deferred admission is normally granted for no more than 12 months from the original matriculation date.

#### **Conditional Admission**

Students who are deficient in certain subject areas may be granted a conditional admission to the program. Students are expected to make up identified deficiencies in addition to completing the normally prescribed graduate coursework for their degree. Upon completion of all deficiencies, students may apply for regular admission.

# **Continuous Registration**

Any on-campus student who has completed all academic coursework except the final project (Plan B project or internship, thesis, dissertation, doctoral project) must be enrolled in at least one CMU graduate credit hour each fall and spring semester until graduation (summer sessions as well if summer coursework is normally required in the program). The continuing registration for the final research project within the student's home department can fulfill this one credit hour requirement. If, after all academic coursework except the final project is completed, a student does not enroll each semester (and summer, where appropriate) until graduation, the student must enroll retroactively for each missed semester (and summer, where appropriate) once s/he returns to complete the project. A student can request a leave of absence by submitting a Leave of Absence Request form to the College of Graduate Studies; if approved, continuous registration will be waived during the approved leave period. Regardless of whether the student has a leave of absence, the student must still complete the degree within the time-to-degree limitations set forth under the degree requirements presented under **Duration of Admission Status** in this *Bulletin* (see index). See the *Graduate Bulletin* for details at <a href="https://bulletins.cmich.edu/">https://bulletins.cmich.edu/</a>.

#### Leave of Absence

Requests for a leave of absence from the program must be submitted in writing to the Director. The rationale for the leave and the length of time being requested should be specified. Permission for a leave of absence requires approval from the Director. Students should be aware that the seven-year-limit for completing program requirements typically remains in effect even when a leave of absence is approved.

# **English Language Proficiency Requirements**

CMU welcomes students from a wide variety of backgrounds. All international students must demonstrate English language competency in one of the following ways: (1) Achieved a satisfactory score on the Test of English as a Foreign Language (TOEFL); (2) Satisfactory completion of a course of study in which the language of instruction was English; (3) Successful completion (grade point average of 3.0 on a 4.0 scale, or the equivalent) of at least twelve credit hours of work in a recognized graduate program instructed in English; (4) Employment at a professional level for at least four years, with written verification by the student's current or former employer of the student's competency in English; (5) Employment in the United States at a professional level for at least two years in a position that relies on the use of English, with written verification by the student's current or former employer of the student's competency in English. Further information can be found in the *Graduate Bulletin* at <a href="https://bulletins.cmich.edw/">https://bulletins.cmich.edw/</a>.

#### **Graduation Procedures**

#### To graduate, a **MASTER'S** degree student must:

- 1. Have regular admission to the degree program.
- 2. File an Authorization of Graduate Degree Program form.
- 3. Complete a minimum of 36 semester hours of graduate work with a GPA of 3.0 or higher; of these 36 credits, no more than 15 can be transfer credits; no more than 1/3 can be unspecified content or variable credit courses; and no more than 10 can be independent study or thesis credits.
- 4. Earn at least a B in each course.
- 5. Earn 15 or more hours for the degree in courses at or above the 600 level.
- 6. Fulfill all requirements of the chosen curriculum and all other university regulations pertaining to the program.
- 7. Complete all requirements pertinent to Plan A requirements of the department.
- 8. Send a completed Graduation Application form along with a check or money order for the \$50 fee, to the College of Graduate Studies, approximately eight weeks before the end of the semester. Deadline dates are listed on the College of Graduate Studies website at *dates & deadlines*.

#### To graduate, a DOCTORAL student must:

- 1. Have a master's degree, if required.
- 2. Have regular admission in the program.
- 3. Be admitted to candidacy.

- 4. Satisfy any research or professional requirements of the department.
- 5. Complete a minimum of 90 semester hours of graduate work beyond the bachelor's degree with a GPA of 3.0 or higher; individual programs may require additional credits.
- 6. Receive at least a B in each course; a student will not be awarded a doctoral degree with more than two grades below B- (coursework not part of a student's doctoral program is excluded from this policy). Individual programs may have more stringent requirements.
- 7. Complete a doctoral dissertation.
- 8. Earn 15 semester hours in 700 level courses (excluding dissertation and internship credits) and 50 of the total hours at the 600 level or above.
- 9. Pass a final oral exam in defense of the dissertation.
- 10. Send a completed Graduation Application form, along with a check or money order for the \$50 application fee, to the College of Graduate Studies approximately eight weeks before the end of the semester. Deadline dates are listed on the College of Graduate Studies website at <u>dates & deadlines</u>.

# **Graduation Commencement Ceremony**

Students must finish all requirements for their degrees before they can participate in graduation ceremonies. Diplomas are mailed to students about six weeks after commencement. If a student needs evidence of degree completion in less than six weeks, written verification is available through the College of Graduate Studies.

# **Research and Training Facilities**

The Department of Psychology has a variety of facilities, which are used for the education of students. The facilities range in focus from those designed primarily for research to those providing direct clinical services. Below is a partial list of the available campus and department facilities:

<u>Graduate Student Offices</u>. Graduate Assistants and Fellowship recipients have space available to them in faculty laboratories.

<u>Graduate Student Computer Laboratory</u>. The Department of Psychology maintains a computer laboratory with 6 workstations and a printer exclusively for graduate student use in Sloan Hall.

<u>Park Library.</u> The Park Library provides an adequate collection of books and journals in the areas of psychology. The book collection totals about 1,000,000 volumes and an online catalogue which allows students to quickly peruse the holdings in a specific area. Desk and study carrels are also available for students. A wide variety of research databases are available, including *Medline*, *PsycInfo*, *and Social Sciences Abstracts*.

<u>Computer Laboratories</u>. The Department of Psychology maintains computer laboratories for research and teaching purposes in Sloan Hall. The labs include a total of 12 workstations. These machines are networked to a printer and various experiment generation and SPSS software applications are installed. The lab serves students and faculty interested in research in cognitive processes, sensation and perception, learning, and social psychology.

<u>Psychological Training and Consultation Center</u>. This facility in the Health Professions Building provides training, service, and research functions. The Center provides a full range of services to children, parents, and professional personnel from the Central Michigan area. Space and resources are typically made available for faculty and students wishing to conduct research.

# **Faculty Laboratories**

**Behavior Analysis/Behavioral Pharmacology Laboratory: Dr. Mark P. Reilly.** The Behavior Analysis Laboratory is located on the second floor of Rowe Hall and consists of rodent and avian colony rooms, behavioral testing rooms with state-of-the-art controlling and recording equipment, a wet lab for surgery and pharmacological preparations, computer workstations for data analysis, and a conference/meeting room. There is also a student laboratory fully equipped with behavioral testing chambers for the undergraduate course in behavior analysis.

Behavioral Neurophysiology Laboratory: Dr. Michael Sandstrom. This laboratory located in Health Professions 2310 and contains facilities for working with two techniques that monitor ongoing neuronal actions within freely moving animals. The first technique is called *microdialysis*, and involves taking samples from brain regions of interest using specialized probes made in-house to measure released neurotransmitters. Microdialysis also provides a mechanism for infusing modulatory chemicals into the same region and monitoring their effects on either neurochemical release or behavior. A two state-of-the-art high performance liquid chromatography devices are available to provide precise measurements of collected neurotransmitters and current research focusses on disrupted control of glutamate, gamma-aminobutyric acid, and glutamine release in rodent models of Huntington's disease. The second technique is called extracellular electrophysiology with iontophoresis, and involves recording the electrical activity (action potentials) of neurons in freely moving rats using 4-barrel glass electrodes with the added advantage of iontophoresis (electrically controlled release) of neurotransmitter substances. Recently, we've incorporated the technique of optogenetics which allows eliciting action potentials on neurons that have incorporated a gene borrowed from sea algae -- channelrhodopsin -- that creates sufficient electrical stimulation to induce impulses in response to intense blue light among neurons transfected with this gene. We've been able to witness light-responsive neurons transplanted into the rat brain and experiments will be exploring how these neurons incorporate into damaged brain tissue in models of deteriorative diseases. Separate animal procedure and testing rooms provide sufficient facilities to perform experiments using these multiple techniques and measures.

The Brain Research and Integrative Neuroscience (B.R.A.I.N.) Center: Dr. Gary Dunbar. The B.R.A.I.N. Center is located in the Health Professions Building. The facilities are used for laboratory classes and individual research projects. The B.R.A.I.N. Center is equipped for small animal surgery, a full array of behavioral tests (including psychophysiology), microscopic and biochemical analyses, and a fully equipped cellular and molecular laboratory.

The Driving Evaluation, Education & Research (D.E.E.R.) Center: Dr. Rick Backs, Director. The D.E.E.R. Center is located in the Health Professions Building. The CMU Center for Driving Evaluation, Education & Research (D.E.E.R. Center) is a collaboration between the College of Humanities, Social, and Behavioral Sciences and the Herbert H. and Grace A Dow College of Health Professions. The mission of the D.E.E.R. Center is to provide clinical services to evaluate cognitive fitness to drive, to provide education to improve driver safety, and to conduct research on older drivers and drivers with attention and/or neurological disorders. The center has the AAA Michigan Driving Simulator, a Drive Safety DS-600, for use in research and evaluation. The D.E.E.R. Center is a place where older adults or persons who have had a stroke or sustained a brain injury can have their driving ability evaluated to determine if they are safe to continue, or are ready to resume, driving. The center also conducts multidisciplinary research on older drivers and on young drivers with attention or other disorders.

**Engineering Psychophysiology Research Laboratory: Dr. Rick Backs.** The Engineering Psychophysiology Research Laboratory is located in the Health Professions Building and is equipped with a driving simulator,

128-channel Neuroscan EEG system, computers, and electrophysiological equipment for measuring various central and autonomic responses in humans.

Field Neurosciences Institute Laboratory for Restorative Neurology: Dr. Gary Dunbar. The Field Neurosciences Institute (FNI) Laboratory is part of the Brain Research and Integrative Neuroscience (BRAIN) Center, located on the second floor of the research wing in the Health Professions Building. The research mission of the FNI laboratory is to better understand the mechanisms involved in recovery of function following damage to the central nervous system and to devise strategies to promote these mechanisms in clinically relevant ways. Current research focuses on devising potential treatments for neurodegenerative diseases, particularly Huntington's disease (HD), Parkinson's disease (PD), and Alzheimer's disease (AD). The lab is fully equipped with a wide variety of specialized equipment for testing the efficacy of pharmacological treatments, stem cell therapies, and genetic manipulations to counteract neuropathological and behavioral deficits in rodent models of HD, PD, and/or AD.

Infant & Child Behavior Laboratory: Dr. Carl Johnson. The Infant and Child Behavior Laboratory is located in Sloan Hall and is used for research in behavioral pediatrics. The research specializes in strategies to facilitate infant and preschool learning, promote healthy sleep and decrease bedtime-behavior problems, especially in children with disabilities such as autism spectrum disorders (ASD). Infant, preschool, and schoolage research is carried out in the lab and the child's home with an emphasis on young children who have low-incidence disabilities. Some of this research is supported by a grant from the Michigan Department of Community Health and the Department of Education to the *Central Assessment Lending Library* (CALL)

Interactive Perception and Attention (IPA) laboratory: Dr. Christopher Davoli. As active creatures, humans require perceptual and attentional systems that are both precise and flexible. Research from the IPA lab seeks to elucidate how this balance is achieved by studying human performance in interactive scenarios. Methodologies utilized include cognitive paradigms, eye tracking, and psychophysical techniques.

**Media and Consumer Psychology Lab: Dr. Bryan Gibson**. This laboratory includes 4 computer work stations, a 42 inch television, and a Playstation 3. Current research focuses on understanding how exposure to a variety of different types of media affects personality, emotions, behavior, and consumer attitudes.

**Memory and Cognition Laboratory: Dr. Hajime Otani**. In this laboratory, we conduct basic and applied research on human memory and cognition. Phenomena that are currently under investigation include metacognition, emotion and memory, hypermensia, and directed forgetting.

The Mr. Science Child Interviewing Laboratory: Dr. Debra Poole. With a partner site at Montclair State University, studies children's event memories with the goal of improving investigative interviews of children. Recent projects, funded by grants from the National Science Foundation, have investigated the completeness and accuracy of eyewitness testimony elicited by standard and prop-assisted interview protocols, the impact of comfort drawing on the quality of children's event narratives, and mechanisms underlying individual differences in testimonial accuracy.

**Neuropharmacology Research Laboratory: Dr. Justin Oh-Lee.** The lab is located in the Health Professions Building. Studies are conducted in behavioral and neuronal plasticity and programmed cell death, particularly those that are related to neurodegenerative disorders such as Parkinson's disease, Huntington's disease, Alzheimer's disease, and other related neurodegenerative disorders. The laboratory is equipped with two large chemical safety hoods, stirrer hot plates, a Cryostat brain sectioning station, and numerous other scientific and behavioral instruments. The laboratory is also well equipped to carry out a variety of biochemical, molecular and histological tissue analyses central to the research carried out in this laboratory.

### **Recent Student Theses and Dissertations**

Effects of stereotype threats on revised mental rotation test scores. Harke, Maureen.

"That's disgusting! It's over!" Moral, behavioral, and emotional reactions to same-sex and opposite-sex sexual infidelity vary by political orientation but are not affected by mortality salience. Franks, Andrew.

The ego depletion pathway: Trying to determine the method of self control exhaustion and replenishment. Lueke, Adam.

Examining sensitivity of Korean MMPI-2-RF validity scales to over-reporting and under-reporting of symptoms. Dykhouse, Amy.

The effects of mesenchymal stem cells on disc structure in a rat caudal model of intervertebral disc degeneration. Matyas, Jessica.

#### **Financial Aid**

#### I. Types of Financial Aid Available to Graduate Students in the Psychology Department

#### 1. Fellowships

Fellowships are awarded on the basis of past academic accomplishments and, thus, on one's promise as a scholar. The fellowship provides the student with funds for living and other expenses so that the student can concentrate on academic pursuits.

Because research is part of graduate education, the Department expects all fellows, as part of their fellowship, to work as an apprentice with a professor on a research project.

#### a. Doctoral Research Fellowships

The Experimental Program has two Doctoral Fellowships. These fellowships cover up to 24 hours of tuition plus a cash stipend.

#### b. Master's Research Fellowships

The Experimental Program has one Master's Fellowship. This M.S. Fellowship covers up to 24 hours of tuition per year and pays a cash stipend.

#### c. Graduate Fellowships

The Graduate College awards Graduate Fellowships on a competitive basis to students with outstanding academic records who are interested in completing theses or other major works of scholarship. This fellowship is intended for graduate students who support the advancement of diversity in higher education. Only students enrolled in a full-time master's or specialist's degree program only at CMU's Mount Pleasant campus is eligible to apply. Doctoral students should apply for Doctoral Research Fellowships. Tuition and stipend for these fellowships are the same as the research fellowships.

#### 2. Assistantships

The Psychology Department's Graduate Assistantships (GA's) are primarily used for research and teaching. GA's are either full-time or part-time and receive a stipend with a variable tuition waiver

up to 20 hours that must be taken during the academic year of the assistantship. Full-Time Assistantship covers up to 20 credit hours of tuition per year and pays a cash stipend for both the Doctoral and Master's program. Part-time assistantship for the Doctoral program covers 20 hours of tuition per year and pays a cash stipend and the Part-time assistantship for the Master's program covers up to 10 credit hours and pays a cash stipend.

Expectations for Assistantships: An Assistantship is like any other job. The assistant must perform satisfactorily-that is, in line with his or her supervisor's expectations.

GA's typically work for a professor in the department to assist him or her with a course or teach an undergraduate course. Traditionally, the Executive Committee assigns GA positions to professors to support instructional programs. Professors who are given a GA select which GA they want from the list of eligible students.

#### 3. Professor Grants and Contracts

Professor's sometimes receive research grants or consulting contracts. Most of the time they budget for graduate student assistants. Thus, students can earn money and sometimes hours of tuition by being assigned to professors that have grants and/or contracts that have been allocated to do so.

#### 4. Outside Grants and Student Loans

Foundations and government agencies often have grant programs for which students may compete. Some of these can be quite generous. You can check with the College of Graduate Studies, Office of Research and Sponsored Programs, Office of Veterans' Benefits, or Student Personnel Services for further assistance.

Students may also get loans at favorable terms. You can check into student loans at your local bank or at the Scholarships & Financial Aid Office. Tuition and living expenses at CMU are low compared to many universities. Thus, a modest loan may get you through graduate school at CMU.

#### II. Financial Aid Decision Processes

#### 1. Purposes of Financial Aid:

Financial aid to graduate students serves four purposes. It helps the Experimental Program recruit new students. It provides a means of financial support to students so that they can concentrate on their studies while they are in graduate school. It provides an incentive for students to make satisfactory progress in the program. And it provides the opportunity for students to apprentice themselves to professors to learn about teaching and research.

#### **Academic Standards**

#### **LETTER GRADES & POINTS**

Α	=	4.0 points per semester hour	C+	=	2.3
A-	=	3.7	C	=	2.0
B+	=	3.3	C-	=	1.7
В	=	3.0	E	=	0.0
$\mathbf{R}_{-}$	_	2.7			

Grades below a C do not count toward meeting requirements for any graduate degree, nor are they accepted.

Particular programs may have more stringent grade requirements.

A 3.0 grade point average (GPA) is required for all graduate degrees.

 $\mathbf{CR} = \mathbf{Credit} - \mathbf{NC} = \mathbf{No} \ \mathbf{Credit} - \mathbf{I} = \mathbf{Incomplete} - \mathbf{W} = \mathbf{Withdrawal} - \mathbf{X} = \mathbf{Audit} - \mathbf{Z} = \mathbf{Deferred}$ 

# **Student Grade Grievance Policy**

A student that has a complaint about a grade shall follow the following steps: (1) Contact the instructor (if the instructor is unavailable, they should contact the department chairperson). This may be done in person or in writing as soon as possible, but no later than sixty days after the beginning of the next semester. Exceptions will only be made in the most compelling situations. (2) If still dissatisfied, the student should request, in writing, a joint consultation with the instructor and the department chairperson. If the instructor is also the department chairperson, this request should be addressed to the dean of the college. (3) If the student still feels that the grade is the result of capricious grading, they may file an appeal within ninety days of the start of the next regular semester. This appeal is made to the dean of the college and will be forwarded to the School Committee on Review on Change of Grade.

#### **Academic Probation**

If a student's GPA drops below 3.0 in any session, the student is placed on probation. Once placed on probation, a student must show satisfactory progress toward regaining a 3.0 cumulative GPA, by earning a grade point average ABOVE a 3.0 during the next semester. When the GPA reaches 3.0, the student will be taken off probation. If a student fails to obtain a GPA higher than 3.0 in the first session following notification of probation status, the department may recommend to the Dean of the College of Graduate Studies that the student be removed from the degree program. A department may ask to extend the probation for an additional session if circumstances warrant. If a student does not regain a 3.0 GPA by the end of the second session, he or she may be continued only if the department makes a specific request and the Dean of the College of Graduate Studies concurs. (A non-degree student who fails to obtain a GPA higher than a 3.0 the first session after being placed on probation may not continue taking classes.)

# **Academic Integrity Policy**

Because academic integrity and ethical behavior are vital to an academic environment and to the development of qualified psychologists, graduate students are responsible for learning and upholding professional standards of research, writing, assessment, and ethics in psychology. In the academic community the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. Written or other work which a student submits must be the product of his/her own efforts and must be consistent with appropriate standards of professional ethics. Academic dishonesty, which includes plagiarism, cheating and other forms of dishonest behavior, is prohibited. Ethical standards, as articulated in the standards of the American Psychological Association and American Psychological Society, must be observed by all graduate students. Allegations of academic dishonesty or unethical behavior will be handled according to the policies given here. Appeals of decisions are processed according to the policies set forth in the "Academic Integrity Policy for Graduate Students," which is published in the *Graduate Bulletin*. Any appeal decision reached pursuant to this section shall be final and not subject to further review.

Although no specific time lines are included in this policy, it is understood that matters should be handled expeditiously.

- 1. In cases where an instructor, supervisor, or fellow student believes a student has demonstrated academic dishonesty or professionally unethical behavior, the instructor, supervisor, or fellow student should report the incident to the Program Director.
- 2. The Program Director will discuss the allegation(s) with the person(s) making them. If the Program Director believes that there is evidence to support the allegation(s), the Director will notify the student of the charges, in writing. In the letter to the student, (s)he will be told the allegation(s) and told that the Program Faculty will be asked to review the allegation(s), look at the evidence, and determine what, if any, sanctions should be issued. The student will be offered the opportunity to admit to the violations, remain silent, meet with the committee to share his/her perceptions of the incident, or submit a written rebuttal to the charges. The student will be given a response deadline, at least two weeks in the future.
- 3. The Program faculty will review allegation(s) of academic dishonesty or unethical behavior. In any case where a member of the Program faculty made the original allegation(s), the faculty member will be excluded from judging the particular case.
- 4. If the student elects to meet with the committee to present his/her version of the events under investigation, the student may bring another person (i.e., an advocate) to the meeting to provide support and advice.
- 5. The Faculty's decision on culpability and appropriate sanctions will be communicated in writing to the student. If the student is found not culpable or if sanctions, other than dismissal or suspension from the program, are issued, this will be communicated in writing to the department Chairperson.
- 6. If the sanction is dismissal or suspension from the program, the sanction will be communicated through the department Chairperson to the Dean of the College of Graduate Studies who will communicate the decision to the student. This decision shall be final and is not subject to further review.
- 7. If sanctions are issued, committee records will be retained for at least one year.

# **Policy on Research Integrity**

Integrity in research and creative endeavors is at the heart of many academic endeavors and a fundamental principle of the university community. Faculty, staff, students, and independent contractors all have a responsibility to assure that research and creative endeavors meet accepted standards of scholarly performance. The increasing complexity of the research and creative process, the requirements of federal and state agencies, and the accountability of university personnel to colleagues, students, the university, and the larger community necessitate that CMU specify an acceptable code of conduct, provide a mechanism for investigating alleged violations of accepted standards, delineate appropriate public record follow any discovery of misconduct.

Following is the policy for dealing with allegations of research misconduct at Central Michigan University:

#### **General Provisions**

#### 1. Applicability

- a. This policy shall apply to all faculty, staff, students, and independent contractors involved in research or creative endeavors.
- b. Nothing in this policy is intended to diminish or waive an individual's rights under any applicable collective bargaining agreement to which CMU is a party, or other university policies and

procedures.

- c. This policy shall apply to students involved in the following research and creative endeavors:
  - Those conducted jointly with a CMU faculty or staff member or with any person from another university.
  - Those externally funded under a grant or contract to CMU or one or more of its employees.
  - Those expected to be published, presented, or shared with the broader academic community outside the student's classroom.
  - Those done in conjunction with a thesis or dissertation, and
  - Those done in conjunction with a graduate Plan B paper.

Except as noted above, this policy does not apply to a student's class assignments, independent study projects, Plan B papers, or directed research work which is not expected to be submitted for publication, presentation, or sharing with a community of scholars other than the members of the class. (Further information can be found in the *Graduate Bulletin*.)

# **Important Contact Information**

Career Services is located in Ronan 240, Telephone (989) 774-3068 or email at: <a href="mailto:careers@cmich.edu">careers@cmich.edu</a>. Or visit their website at: <a href="http://www.cmich.edu/ess/academic\_advising\_assistance/career\_services/Pages/default.aspx">http://www.cmich.edu/ess/academic\_advising\_assistance/career\_services/Pages/default.aspx</a>

Multicultural Academic Student Services is located in Bovee University Center 108, Telephone (989) 774-3945 or email at: <a href="mailto:insdiv@cmich.edu">insdiv@cmich.edu</a>. Or visit their website at: <a href="http://www.cmich.edu/office\_provost/oid/ode/Pages/default.aspx">http://www.cmich.edu/office\_provost/oid/ode/Pages/default.aspx</a>

Student Disability Services is located in Park Library 120, Telephone (989) 774-3018 or email at <a href="mailto:sds@cmich.edu">sds@cmich.edu</a>. Or visit their website at: <a href="https://www.cmich.edu/ess/studentaffairs/SDS/Pages/default.aspx">https://www.cmich.edu/ess/studentaffairs/SDS/Pages/default.aspx</a>

*University Health Services* is located in Foust Hall 200, Telephone (989) 774-6599 or visit their website at: https://www.cmich.edu/universityhealthservices/Pages/default.aspx

*Counseling Center* is located in Foust Hall 102 Telephone (989) 774-3381 or visit their website at: <a href="https://www.cmich.edu/ess/StudentAffairs/CounselingCenter/Pages/default.aspx">https://www.cmich.edu/ess/StudentAffairs/CounselingCenter/Pages/default.aspx</a>