College of Humanities and Social Sciences

Department of Psychology

George Mason University

Cognitive and Behavioral Neuroscience

Masters and Doctoral Graduate Programs

Student/Faculty Handbook

 2021-2022 Edition

Last Updated: 11/10/21

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# Policies and Procedures

The requirements for each academic program offered by the college are described in the sections for the sponsoring departments and programs. All students are subject to the policies stated in the Policies and Procedures section of this catalog

## University Policies and Procedures – All George Mason Students

 [Sexual Harassment Policy](https://universitypolicy.gmu.edu/policies/sexual-harassment-policy/) - All faculty, staff, students, university contractors, and visitors are expected to comply with the University policy on Sexual Harassment and Misconduct. Information about this policy can be found at: <http://universitypolicy.gmu.edu/policies/sexual-harassment-policy/>.

[E-mail Communication Policy](https://its.gmu.edu/service/masonlive-email-for-students/) - Mason uses only Mason e-mail accounts to communicate with enrolled students. Students should activate their Mason e-mail account, use it to communicate with their department and other administrative units, and check it regularly for important information.

[Accommodations](https://ds.gmu.edu/accommodations-and-services/) - Disability Services at George Mason University is committed to providing equitable access to learning opportunities for all students by upholding the laws that ensure equal treatment of people with disabilities. If you are seeking accommodations for this class, please first visit <http://ds.gmu.edu/> for detailed information about the Disability Services registration process. Then please discuss your approved accommodations with me. Disability Services is located in Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu | Phone: (703) 993-2474

 [Academic Calendar](https://registrar.gmu.edu/calendars/) – Calendar outlining each Academic Year

[Dates and Deadlines](https://registrar.gmu.edu/calendar/) – Important deadlines as they relate to university processes (Registration deadlines, graduation, dissertation due dates, etc)

 [Financial Good Standing](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-2-1)

 [Registration Procedures](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-3)

 [Special Registration Procedures](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4)

 [Permission to Study Elsewhere](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-2)

 [Special Registration for Non-enrolled Students (ZREG 200)](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-5)

 [Enrollment for Credit Without Grade Points (S/NC)](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-6)

 [Summer Term](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-8)

 [University Consortium](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-4-9)

 [Withdrawal](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-5-2)

 [Attendance Policies](https://catalog.gmu.edu/policies/academic/registration-attendance/#ap-1-6)

 [Course Information](https://catalog.gmu.edu/policies/academic/course-information/#ap-2)

[Grading](https://catalog.gmu.edu/policies/academic/grading/#ap-3)

 [Graduate Grading](https://catalog.gmu.edu/policies/academic/grading/#ap-3-2)

 [Additional Grade Notations](https://catalog.gmu.edu/policies/academic/grading/#ap-3-3)

 [Final Grades](https://catalog.gmu.edu/policies/academic/grading/#ap-3-5)

 [Transcripts](https://catalog.gmu.edu/policies/academic/grading/#ap-3-6)

 [GPA](https://catalog.gmu.edu/policies/academic/grading/#ap-3-7)

 [Change of Grade and Grade Appeals](https://catalog.gmu.edu/policies/academic/grading/#ap-3-8)

 [Degree Application, Conferral Graduation](https://catalog.gmu.edu/policies/academic/degree-application-conferral-graduation/#ap-4)

 [Application for Degree](https://catalog.gmu.edu/policies/academic/degree-application-conferral-graduation/#ap-4-1)

 [Degree Conferral](https://catalog.gmu.edu/policies/academic/degree-application-conferral-graduation/#ap-4-2)

 [Catalog Requirements for a Degree](https://catalog.gmu.edu/policies/academic/degree-application-conferral-graduation/#ap-4-2-2)

 [Graduation](https://catalog.gmu.edu/policies/academic/degree-application-conferral-graduation/#ap-4-3)

 [Research Policies](https://catalog.gmu.edu/policies/academic/research/)

## University Policies and Procedures – All Graduate Students ([AP.6](https://catalog.gmu.edu/policies/academic/graduate-policies/))

[Student Classification](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-1) – Full Time/Half Time Status

 [Academic Advising](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-3)

 [Program of Study](https://psychology.gmu.edu/graduate/student-handbooks-and-programs-of-study)

 [Permission to Re-Enroll](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-4-3)

 [Voluntary Resignation](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-4-4)

 [Graduate Student Parental Leave of Absence](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-4-5)

 [Credit by External Exam](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-5-1)

 [Reduction of Credits](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-5-2)

 [Transfer of Credit](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-5-3)

 [Permission to Study Elsewhere](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-5-4)

 [Graduate Academic Standing](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-6)

 [Warning](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-6-1)

 [Academic Termination](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-6-2)

 [Readmission](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-6-3)

 [Bachelor’s/Accelerated Master’s Degree](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-7)

 [Graduate Certificates](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-8)

## University Policies and Procedures – All Master’s Students ([AP.6.9](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9))

[Requirements](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9)

 [Thesis Options](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9-1)

 [Time Limit](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9-2)

 [How To Request Time Limit Extension](https://chss.gmu.edu/graduate/policies/gradtimeextensionreq)

 [How to Request Exception to Academic/Time Limit Termination Policy](https://chss.gmu.edu/graduate/policies/gradterminationappeal)

 [Master’s Thesis](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9-3)

 [Thesis Submission](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9-4) – [Important Deadlines](https://registrar.gmu.edu/students/graduation/timelines/)

 [University Dissertation and Thesis Services](https://library.gmu.edu/udts)

## University Policies and Procedures – All Doctoral Students ([AP.6.10](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10))

[Requirements](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10)

 [Time Limit](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-1)

 [How to Request Time Limit Extension](https://chss.gmu.edu/graduate/policies/gradtimeextensionreq)

 [How to Request Exception to Academic/Time Limit Termination Policy](https://chss.gmu.edu/graduate/policies/gradterminationappeal)

 [Doctoral Research Skill Requirements](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-2)

 [Program of Study](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-3)

 [Doctoral Students Pursuing a First Master’s Degree](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-9-5)

 [Advancement to Candidacy](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-4)

 [Process for CHSS Students](https://chss.gmu.edu/graduate/forms)

 [Dissertation Committee](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-5)

 [Committee size and composition](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-5)

 [Dissertation Registration (998,999)](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-6)

 [CHSS 999 Registration Procedure](https://chss.gmu.edu/graduate/policies/grad999request)

 [Doctoral Defense](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-8)

 [Scheduling Defense](https://psychology.gmu.edu/people/staff)

 [Dissertation Submission and Fees](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-9)

 [Dates and Deadlines](https://registrar.gmu.edu/calendars/)

 [University Dissertation and Thesis Services](https://library.gmu.edu/udts)

 [Embargo](https://library.gmu.edu/udts/resources#forms)

 [Graduate Council](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-11)

 [Graduate Faculty](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-12)

## College of Humanities and Social Sciences (CHSS) Policies

About the College

 The College of Humanities and Social Sciences (CHSS) is composed of 11 departments and 10 major interdisciplinary programs. The college is also home to New Century College, which offers an innovative interdisciplinary major as well as [Mason Cornerstones](file:///C%3A%5CC%3A%5CUsers%5Cdroy5%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CUndergrad%20Program%20Coord%25EF%2580%25A9%5CMichael%5CHandbooks%20and%20Programs%20of%20Study%5C2018-2019%20Handbooks%20and%20Program%20of%20Study%5Ccornerstone.gmu.edu), a first-year program for students in all majors. Together with the College of Science, the college administers the university-wide Honors Program in General Education, the academic program of the Honors College. This is open to qualified students from all majors in the university. The college has a distinguished faculty of more than 400, including recipients of the Pulitzer Prize and Guggenheim Fellowship.

 At the undergraduate level, all programs emphasize challenge, opportunity, and success. They challenge students to think critically and creatively and to go beyond what is required by pursuing research experiences, minors, double majors, honors in the major, and accelerated master’s degree programs, which enable them to earn both an undergraduate and a graduate degree, often within five years. They provide many opportunities beyond the classroom including study abroad programs, service learning, internships, and career-enhancing courses and minors, all of which will help prepare them for success beyond college.

 At the graduate level, programs of study provide opportunities for career development and advancement, professional education, participation in research, and personal fulfillment.

 All programs encourage the exploration of contemporary issues through a dynamic curriculum that fosters an informed understanding of real world problems. The college provides students with an education that enables them to think critically, adapt to the changing conditions of society, and provide informed leadership to future generations.

[Withdrawal](https://chss.gmu.edu/graduate/policies/gradwithdrawal)

 [Credit Overload](https://chss.gmu.edu/graduate/policies/gradcourseoverload)

 [Reduction of Credit](https://chss.gmu.edu/graduate/policies/gradreductionrequest)

 [Transfer of Credit](https://chss.gmu.edu/graduate/policies/gradtransfer)

 [Dissertation Registration](https://chss.gmu.edu/graduate/policies/grad999request) – CHSS procedures

 [Time Limits](https://chss.gmu.edu/graduate/policies/gradtimeextensionreq)

 [Extension Requests](https://chss.gmu.edu/graduate/policies/gradtimeextensionreq)

 [Graduate Appeals of Termination](https://chss.gmu.edu/graduate/policies/gradterminationappeal)

 [Voluntary Resignation](https://chss.gmu.edu/graduate/policies/resignprogram)

# COGNITIVE AND BEHAVIORAL NEUROSCIENCE

## What We Do

The Cognitive and Behavioral Neuroscience graduate program emphasizes training in the neurobiological bases of behavior in animals and humans. Students are prepared for work in research settings, such as academic, government or industrial labs. Areas in which theses are encouraged include: neurobehavioral effects of drug exposure in pregnancy and adolescence, neural bases of learning and memory, the role of metals in learning and memory and in Alzheimer’s Disease, cognition and aging, and animal models of addiction, including neural bases of addiction and related behaviors. The recent expansion of the program adds human studies using noninvasive imaging techniques [especially fMRI and electrophysiology] to study issues such as cognitive aging; neural systems involved in perception, attention, and other cognitive processes, especially those related to human performance; and imaging clinical problems. Some students also work with advisors outside of the core CBN faculty, and conduct theses that include computational modeling of neural function, other aspects of basic neuroscience, or genomic work.

PhD students are also prepared for faculty positions. Generally, all students will teach at least one course under faculty supervision while in the PhD program.

## Research Resources

* + 1. For data collection in animals.

The Department maintains approved rat and mouse colonies in the Krasnow Building. Experimental equipment includes behavioral testing equipment and histological/histochemical facilities. Behavioral equipment includes a number of video-based systems [Morris water maze for rats and mice, rat and mouse radial arm mazes, novel object recognition, open field, elevated plus maze], a fear conditioning system, and Skinner boxes for self-administration studies. The histological equipment includes a Neurolucida system for morphological quantitation, two state of the art cryostats, and a humidity chamber for Golgi work. Various other histological stains and techniques [optical and fluorescent] are also supported, including in situ hybridization histochemistry and PCR. The program has collaborative arrangements with the Center for Biomedical Genomics, at the Prince William campus, allowing for genetic analyses.

* + 1. For data collection using human subjects.

 Cognitive neuroscience equipment includes 40-, 64-and 160-channel EEG recording systems (active and passive systems), functional near infrared and ultrasound imaging devices, a Siemens 3T Prisma MAGNETOM Magnetic Resonance Imaging (MRI) machine and a MRI-guided transcranial magnetic stimulation (TMS) system. There are also transcranial direct current stimulation (tDCS) and transcranial alternating current systems (tACS). The MRI machine is housed in the new Peterson building on the Fairfax campus. Dr. Jim Thompson is the Scientific Director of this facility. A Polaris camera, digitizing equipment, and computer with custom digitizing software is also available, as is access to software packages required for experiment creation and data analysis, including Matlab licenses. Please contact Dr Jim Thompson (jthompz@gmu.edu) or Dr Craig McDonald (cmcdona3@gmu.edu) if you have any questions about accessing the EEG systems.

The Department and individual faculty now have a variety of up-to-date equipment for use in research. Please bear in mind that some of it was purchased by individual faculty from research grants [and thus requires permission of the owner], that some of it is hazardous, that most of it is used by more than one person, that many items are rather expensive, and that a number of items are somewhat delicate. You should never use a piece of equipment, or perform an experimental process, unless you have been trained properly and have permission of the equipment owner. Violation of this may result in serious injury, charges for repair of damaged equipment, and loss of use of equipment - if the owner of a piece of equipment bans you from use of it, there is no appeal. Our students are now benefiting enormously from these recent purchases, but you must use them responsibly.

* + 1. Resources outside the Psychology Department.

Some CBN students may also wish to take advantage of other resources outside of the Psychology Department. The department works closely with other Neuroscience faculty. Three of the faculty of the new Molecular Neuroscience department [Ascoli, Butler, Blackwell] were CBN faculty until formation of the new department, and working relationships with these faculty and recent additional hires in Molecular Neuroscience continue to be cordial. More information on neuroscience assets at Mason outside of CBN can be found at the Krasnow <http://krasnow.gmu.edu/> and Neuroscience <http://neuroscience.gmu.edu/> websites. Other neuroscience resources include faculty in Molecular and Microbiology, and Bioengineering.

 Some students also take advantage of local area resources outside of Mason. Thesis and dissertation work has been done at various NIH laboratories, for example. We encourage students to conduct research on campus when feasible, but work at off-campus sites may be permitted with approval of the advisor and program director.

Neuroscience work is supported by an extensive collection of behavioral equipment for testing humans, ranging from a driving simulator and flight simulator to a number of computer-based simulations and other human performance test capabilities. A good deal of work in cognitive neuroscience is supported by the [Center of Excellence in Neuroergonomics, Technology, and Cognition (CENTEC)](http://centec.gmu.edu/), recently established with extensive support from the Air Force, which focuses on Neuroergonomics: the study of the human brain in relation to performance at work, transportation, and other everyday settings.

* + 1. Approval of Research Projects

All human subjects related forms (including applications, continuing review forms, and amendment forms) are submitted through the IRB’s online protocol management system, IRBNet. IRBNet's secure web-based solution is accessible for research staff at any time. IRBNet is hosted at a secure, enterprise-class data center that supports the strict requirements of the US Government. Encryption, password authentication and strict authorization rules are in place to protect information. Animal studies must be approved by the Institutional Animal Care and Use Committee (IACUC). Forms and procedures may be found on the website of the [Office for Research Integrity and Assurance](https://oria.gmu.edu/).

Detailed information on applying for approval for research and using the Department’s subject pool can be received from the psychology department’s research coordinator (psychlab@gmu.edu). . For more information about utilizing the subject pool, please visit [GMU Sona Systems](https://gmu.sona-systems.com/Default.aspx?ReturnUrl=%2F) (link embedded).

## Lab Safety

 Most research in the CBN program involves laboratory equipment, and some involves animals. Environmental Health and Safety ([http://ehs.gmu.edu](http://ehs.gmu.edu/)) conducts safety training in a number of areas, which are required before beginning to work in a laboratory. These should be completed as soon as possible after arriving at Mason. In Psychology, the prime safety rule is that you should not operate a piece of equipment, or conduct a laboratory procedure, if you have not yet been trained on it.

## Computer Facilities

The university has numerous computer labs around campus that access to the Web. Visit [Patriot Pass NetID](http://strongpassword.gmu.edu/) to activate your account. If you have any questions, please call the [ITS Support Center](http://itservices.gmu.edu/) at 703-993-8870. Most GRAs have space and access to computers within the lab. GTAs may conduct their office hours either within department adjunct/GTA space [currently located in David King Hall] or in their advisor’s research space if available. Please bear in mind that computer access does not include print support for personal uses [you can print work related to your GRA or GTA assignment, but not materials for courses in which you are registered].

George Mason University is the largest public university in Virginia, and is fully connected to the internet with Lambda Rail connectivity, access to grid and cloud computing facilities. It routinely supports the kind of collaborative research and training involved in this proposal. Each Mason PI has appropriate office space, desktop or notebook computers, wired or wireless Internet connections, networked or single machine software, technical client services, and appropriate administrative support. The Office of Research Computing administers a 650+ CPU core batch-processing cluster called ARGO as a free resource available to all GMU faculty and faculty-sponsored students. Funding for the Argo cluster was partly provided by NSF MRI grant # 1205453. The ARGO Research Cluster consists of:

· 2 Dell PE R720, Head Nodes, dual Intel Xeon E5-2670 8 core CPUs, 64GB RAM.

· 37 Dell C8220, Compute Nodes, dual Intel Xeon E5-2670 8 core CPUs, 64 GB RAM.

· 2 DELL PE R815, “Fat” Compute Nodes, quad AMD Opteron 6276 16 core CPUs, 512 GB RAM.

· 2 Dell NSS PE R620 (HA) with 150TB attached storage.

· Interconnect networks are FDR InfiniBand and Gigabit Ethernet.

· 20 Gbit (bonded) external connections for each head node.

Software installed on the Argo Research Cluster includes: RHEL 6 operating system; Job scheduling managed by Univa Grid Engine; Apache Hadoop; Intel Cluster Compiler Suite 4.1.0.024 (5 seats available); MPI versions: openmpi, impi, mpich, mpich2, mvapich; Optimised BLAS library: OpenBLAS; R 3.0.2 built with optimized libraries; gcc 4.7.0; Java 1.7.0; Matlab (mcc), cplex; Python 2.7, Python3.3, numpy, scipy etc.

## Financial Support

 A detailed description of financial support available and procedures for applying are listed later in this handbook. In general, PhD students are given priority for support, and most PhD students receive three-year support guarantees as part of their admission offer. Many, but not all, MA students receive GTA or GRA support – the exact distribution varies as a function of resources available. Some MA students who initially accept admission without a support offer receive offers later as new grants arrive; all students seeking support should stay in touch with Dr. Mike Hurley, who administers GTA support and is knowledgeable about support available in other offices/departments on campus, and with their advisors, who may be able to provide GRA support.

 Students are strongly encouraged to apply for intramural (internal) and extramural (external) grants to obtain funding for research assistantships. Common grants/fellowships that our students apply to include the NSF Graduate Research Fellowship Program (GRFP) and the NIH F31 series grant. Opportunities for funding are always updated on a regular basis so it will be up to the student to keep track of deadlines. Students should also talk to their advisors in advance as much as possible on applying for grants or fellowships. Additional information about available grants is continuously updated through the Johns Hopkins University’s database found here: <https://research.jhu.edu/rdt/funding-opportunities/graduate/>

## Student Resources

 Information for students on University and Colleges policies, registration services, financial aid, supportive services, thesis/dissertation policy and graduation can be found on the [Graduate Student Information webpage](https://catalog.gmu.edu/policies/academic/). Additionally, Program Handbooks, Programs of Study (POS), commonly used forms as well as other useful resources can be located on the [Psychology Current Graduate Student](https://psychology.gmu.edu/graduate) page. Students are encouraged to bookmark these link and visit them often.

## FAQs for Graduate Students:

***How do I get a TA or RAship?***

 PhD students are usually guaranteed three years of support on admission, contingent on satisfactory progress through the program and satisfactory performance in assignments. Assignments are done annually, and you must respond to emails in order to get an assignment and retain your support. MA students do not have guarantees of support, but may be appointed to a TA or RA position.

 TA assignments are handled by the department administrator, Mike Hurley, who consults with faculty. RA assignments are handled directly by the person with the money for an RA position – typically the individual faculty member. Faculties with grants, and brand new faculty, are usually the only ones who have these positions available. You can also seek TA and RA positions in other departments by applying directly to them. More senior students, and Mike Hurley, are good sources of leads on these. Support offers are always conveyed in writing from the person responsible for the account; do not rely on verbal statements from anyone.

***How do I get tuition remission and health insurance coverage?***

 Tuition must be paid from some account. PhD students get a commitment of tuition coverage for three years in their award letter. Out-of-state PhD students who are appointed to an on-campus GRA/GTA position with a stipend of $10,000 or more are billed at the instate rate. It is rare for MA students to get tuition coverage for TA appointments, but grant-funded RAs often carry tuition for MA students. For health insurance, all graduate students with on-campus appointments carrying an academic year stipend of $10,000 or more receive paid health insurance.

***What happens if my interests change?***

 You can generally switch advisors, with assent of the new advisor, except that we expect all students to complete a project once that project has been started with a particular faculty member. With approval of the program director, advisors may be outside of the CBN program [e.g., Molecular Neuroscience, Bioengineering, or Molecular/Microbiology]. Caution: if you’re financial support is from your advisor’s grant, check to make sure that your new advisor can provide support. If you don’t have a guarantee of support, make sure any changes don’t cost you your support.

 If your interests are closer to that of another program, you must apply for admission to that program and be considered with all other applicants.

***How do I get money to attend a convention?***

 Generally, you need to present your research at a convention in order to be eligible for support. Much of our travel support comes through the Graduate Student Travel Fund and various grad student clubs, so join SIN [Students in Neuroscience] to maximize travel support. As of the fall 2013 term, financial support from the Graduate Student Travel Fund will only be awarded to those presenting at conferences. Research grants to advisors are also a prime source of travel support.

***How do I get money for research?***

 Most research is supported by grants. Start by talking to your advisor. If your advisor has grant money, that’s your first source of support. For thesis and dissertation, the department has some support available on application, but that is generally not enough for CBN work. We strongly encourage more senior students to apply for outside grants [such as NIH and NSF predoctoral fellowships] and the various internal GMU research support mechanisms. These change too rapidly for a handbook to be current, so see your advisor, talk to more senior students, and see the program director. Student applications for external funding from a variety of resources are strongly encouraged.

***Can I take time off?***

 Yes, with limits. MA students cannot go more than two consecutive terms (excluding summers) without registering, or you must apply for [readmission](http://chss.gmu.edu/graduate/policies/gradreenrollment). PhD students must apply for a leave of absence if they are not going to complete 15 or more credits within a given year, and are generally limited to no more than a year’s absence during the entire program. George Mason now offers a [Graduate Student Parental Leave of Absence.](https://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-4-5) In addition, students should pay attention to the expectations of their advisor for satisfactory progress. If an advisor is unhappy with a student’s commitment to the program, the advisor is allowed to resign. While that’s rare, a student cannot complete the program without an advisor, and the department does not compel a faculty member to advise a particular student – that’s by mutual agreement, and partly dependent on the faculty member’s perception of the student’s motivation and progress. Consult your advisor regularly, even if you are taking time off. Please note that leaves of absence do not extend the various time limits [time to complete MA program, advance to PhD candidacy, etc] required by the university or college.

***What happens if the program requirements change while I’m in the program?***

 You will always follow the program requirements that correspond to the catalog year in which you started. Any program requirement changes that are made will apply to the incoming cohort, and will not apply to your program of study, unless you specifically request that change be made. In some cases, it makes sense to allow a bit of mixing, and faculty has sometimes allowed substitutions of requirements. Always check with your advisor if you are in a situation like this.

***Can I do thesis or dissertation work with an advisor not in the Cognitive and Behavioral Neuroscience program?***

 We generally admit students based in large part on the match between the student and a faculty member in the CBN program, but, if your research interests change, you can do work with a faculty member outside the program. Thesis or dissertation research has to generally lie within the purview of CBN [implications for both behavior and its mechanisms], but work can be done in other labs, even [rarely] outside of Mason. Consult your advisor and the program director, and consult the program director as a co-advisor if your work involves an outside mentor.

***How bad are PhD Comprehensive Exams??***

 PhD comprehensive exams or “comps” are designed to allow the faculty to assess a doctoral student’s broad knowledge of the methods and findings within his/her field, as well as your ability to address significant questions, and to approach research issues. Some of the questions will be designed to address your thinking about your dissertation topic, although you are not expected to have a specific proposal before taking comps. Comps are not supposed to be easy, and we give you a take-home exam with 30 days to complete it to allow you to show us how well you can think and integrate. We have recently reduced the number and length of questions to reduce the time commitment required for comps.

 The oral portion of comps is basically to allow you to ‘fill in the gaps’ that faculty see in your written comps. Excellent written comps may result in a fairly short oral exam, but borderline written comps generally insure a longer series of oral questions.

***What do students do after graduation?***

 I have the best information for students in my lab [BS]. Of the 9 PhD students I have graduated from my lab, 6 got good postdoctoral positions, 1 went immediately to work for a government contractor, 1 retained an existing government research position and has now moved to a stronger position, 1 took time off to raise kids and now heads a national foundation. Of the 6 who took postdocs, 2 are recent and still in them, 1 is tenured and now a past chair of a Psychology department, 2 just got a faculty position, and 1 spent years teaching part-time while raising kids and is now in a tenure-line faculty position.

 More than half of MA students have gone on to PhD programs, either at Mason or other universities. Several have gone on to senior technical positions in research in government or industry.

 To a large extent, the future is determined by your performance in grad school. The motivated students we admit have done well in finding employment after grad school. While in the program, your performance should include dedication to research, strong performance in any assignment, conference presentations, and journal publications to maximize your competitiveness for jobs after graduation.

# COGNITIVE AND BEHAVIORAL NEUROSIENCE MASTERS PROGRAM

## Degree Requirements

(Catalog year 2020-2021)

**Two courses (6 credits) of specialized content**

PSYC 531 - Mammalian Neurobiology Credits: 3

[PSYC 558](http://psychology.gmu.edu/courses/1567) - Neuronal Bases of Learning and Memory Credits: 3

**One Additional Course (3 credits) chosen from:**

PSYC 555 - Neuroimaging Credits 3

[PSYC 559](http://psychology.gmu.edu/courses/1568) - Behavioral Chemistry Credits: 3

**Two quantitative methods courses (7-8 credits)**

[PSYC 611](http://psychology.gmu.edu/courses/1574) - Advanced Statistics Credits: 4

**One Additional Course Chosen from:**

PSYC 652 – Quantitative Methods II: Analysis of Variance Credits: 3

PSYC 754 – Quantitative Methods III: Psychological Applications of Regression Techniques Credits : 3

PSYC 756 - Quantitative Methods IV: Multivariate Techniques in Psychology Credits: 3

PSYC 592 – Special Topics (When the topic is Bayesian Statistics or Research Methods)

PSYC 892 – Special Topics (When the topic is Quantitative or Research Methods)

**Professional seminar (1 credit)**

[PSYC 890](http://psychology.gmu.edu/courses/1651) - Seminar in Professional Psychology Credits: 1-3

**Electives (at least 7 credits with approval from advisor)**

 Students complete the 32 credits required for the degree through additional credits of course work or research. They can choose from courses below or other courses with the approval of their advisor.

PSYC 592 – Special Topics (When the topic is Animal Behavior, Biological Bases of Alzheimer’s Disease, or Comparative Cognition.)

PSYC 892 – Special Topics (When the topic is Cognitive Neuroscience)

NEUR 602 –Cellular Neuroscience

NEUR 389 Topics in Neuroscience

BIOL 585 – Eukaryotic Cell Biology Laboratory

**Thesis or Practicum (6 credits)**

Students may choose to do either a Psychology Practicum or a Thesis. Both options require at least 6 credits total. Students should be aware of the policies governing theses. They must follow the thesis enrollment policy of the university and once enrolled in [PSYC 799](https://catalog.gmu.edu/search/?P=PSYC%20799) Master's Thesis, maintain continuous enrollment. See Academic Policies.

PSYCHOLOGY PRACTICUM

PSYC 792 – Psychology Practicum Credits: 6

THESIS

[PSYC 798](http://psychology.gmu.edu/courses/1633) - Thesis Proposal Credits: 1-6

[PSYC 799](http://psychology.gmu.edu/courses/1634) - Master's Thesis Credits: 1-6 (Students must enroll in 3 credits in their first term of enrollment in PSYC 799)

**Total: 30-31 Credits**

This is the requirement for the 2021-2022 Catalog Year. Requirements may be different for earlier catalog years. See the [University Catalog archives](http://catalog.gmu.edu/).

Students normally take PSYC 558, PSYC 611 in the first semester, in addition to the Professional Seminar.

 Students in the MA program must maintain continuous registration until completion of the degree. Students must get approval from their advisor before registering for classes each semester. An e-mail to the advisor with a list of proposed courses for the semester is the most efficient way to request approval.

 The curriculum will evolve from time to time as new courses and faculty are added. Students who have questions about melding different sets of requirements, or including courses not on our suggested lists, should consult their advisor and/or the program director.

 Students are also responsible for insuring that they adhere to catalog requirements, and should remain familiar with requirements of the catalog under which they intend to graduate.

## Master’s Thesis

A thesis is (or a 6 credit Psychology Practicum--see 4.3) is required in the CBN program. A thesis reflects the student’s ability to conceptualize, design, carry out, analyze, and formally write up a research project appropriate to the student’s interests. Students should begin discussion with their advisors about possible thesis topics early in their graduate career. Please bear in mind that most CBN theses are costlier than the department guidelines for thesis support, and that your project must typically be close enough to your advisor’s interests that your advisor can provide some financial support.

The following guidelines are to provide assistance in preparing for thesis deadlines. More specific guidelines may be found in the [Guide for Preparing Graduate Theses, Dissertations, and Projects](http://thesis.gmu.edu/index.html).

Students working on a thesis proposal enroll in 3 credits of PSYC 798. Continuous registration in PSYC 798 is not required. Students who have an approved proposal and are conducting the research enroll in PSYC 799. Continuous registration in PSYC 799 is required until the student graduates – regardless of whether they need the credits. Per the [University Catalog](http://catalog.gmu.edu/), students must register for at least 3 hours of PSYC 799 in the first term they are eligible to do so. Credits earned for Directed Readings will not be converted to thesis credits. Contact the graduate programs coordinator for enrollment procedures.

* + 1. Thesis Advisor and Committee

The thesis advisor works closely with the student in developing and focusing the research problem or question; writing the thesis proposal; collecting, analyzing, and interpreting the data; and writing the final version of the thesis. Generally, especially if the advisor is providing funding for the thesis, the topic must be within the interest area of the advisor. The thesis advisor will also help to choose the members of the Thesis Committee. The list of faculty interests at the end of this handbook may be of assistance in identifying an advisor and/or thesis advisor.

The Thesis Committee consists a minimum of three persons, including the thesis advisor. The thesis advisor must be a full-time faculty member, usually in the Department of Psychology. At least one of the other two members must also be full-time faculty in the Department of Psychology. The task of this group is to provide advice and consultation at all stages of the thesis, particularly in the development of the proposal. The point at which this committee is formed is left to the discretion of the thesis advisor. It is the student’s responsibility to request faculty to participate on the committee.

Students must complete and submit the [Dissertation/Thesis Committee Composition Form](http://psychology.gmu.edu/graduate/formsgrad) to the Graduate Programs Coordinator before they may begin their thesis.

* + 1. Thesis Proposal

The thesis proposal consists of the following:

1. [Thesis Proposal Signature Sheet](http://psychology.gmu.edu/graduate/formsgrad)
2. A substantial, critical review of the literature as background to the problem you are investigating, a statement of specific hypotheses, a detailed methods section, and a plan for statistical analysis.

The thesis proposal must be approved by the thesis committee, the Program Coordinator, and the Associate Chair for Graduate Studies. It must then be submitted to the Dean of the College Humanities and Social Sciences (CHSS) before registration for thesis credit (PSYC 799).

* + 1. Thesis Proposal Presentation

The thesis proposal must be presented to the thesis committee for approval. The student should discuss the procedure for this presentation with his/her thesis advisor.

* + 1. An approved proposal signifies the following:

The proposal contains a clear, focused literature review germane to the dissertation. The committee approves the experimental design, choice of variables investigated, procedures, and the rationale behind the proposal. There is a clear set of hypotheses, and enough detail on planned statistical analysis for the committee to be clear on the planned procedures; the committee is satisfied that the procedures are appropriate to the design, hypotheses, and variables investigated.

a. After proposal approval, the committee may NOT require: additional dependent measures and a significant modification to the design

b. The committee MAY require: a few additional statistical analyses if outcomes of planned analyses, upon reflection, indicate this would be appropriate; updated literature review when the dissertation is final; and extended discussion based upon data and analysis

* + 1. Writing the Thesis

The thesis is to be written to conform to the standards of the American Psychological Association as published in the third edition of the Publication Manual of the American Psychological Association. Before a draft is submitted to the thesis committee, the student and his/her advisor should have perfected the paper as much as possible in terms of content, grammar, and format. The members of the Thesis Oral Examination Committee should receive a draft in sufficient time for them to read and critique the paper, and for the student to make any necessary revisions prior to the submission deadline. The final draft must be approved by the Thesis Oral Examination Committee, the Program Coordinator, and the Associate Chair for Graduate Studies, with an original and one approved copy submitted to the Dean (via the Graduate Program Office) by the date announced on the CHSS website. Deadlines are strictly adhered to and students should be certain to visit the following [CHSS Graduation Checklist Website](http://chss.gmu.edu/graduate/graduation-checklist/checklists) for deadline details.

* + 1. Manuscript-Style Thesis

This style is an alternative to a traditional thesis style. The faculty strongly encourages students to use this style, as it expedites publication of the thesis work. The thesis proposal provides a focused literature review, well-developed rationale, a research design, and a data analysis plan. The deliverables are an Introduction in the form of a Psych Review-style paper that synthesizes previous research and theory and leads to the specific question(s) to be addressed, and a detailed Methods and Analysis Plan.

The final form of the thesis should be a journal-length manuscript. This should include a sharply focused literature review, well-grounded hypotheses, a clear description of the method and relevant results, and a discussion of theoretical and practical implications of the research. In order to be acceptable, the committee must judge the manuscript to be of publishable quality. The thesis proposal (which represented a broader presentation of relevant theory and research) as well as any additional results not directly relevant to the journal manuscript, or discussion of implications beyond that which a journal would accept, should be included as an appendix.

Manuscript-style theses are not intended to reduce the scope of question suitable for a thesis, knowledge of the literature and methods required of the candidate, or the expectations for data analysis and interpretation. They are intended to facilitate publication of the thesis work, as the thesis is essentially ready for submission without having to rewrite and reformat, as would be required in the traditional format.

* + 1. Thesis Oral Examination

An oral defense of the final thesis to the Thesis Committee is required. The defense is concerned with the problem, design, method, interpretation, and knowledge in the general area of the thesis. The defense is conducted by the thesis advisor. Successful completion of the defense is reflected by approval of the thesis committee.

The defense should be conducted no later than three weeks prior to the date specified in the calendar published in the University Catalog for receipt of the final thesis in the College of Humanities and Social Sciences Dean’s office. Such scheduling will help assure adequate time for making revisions in the final draft. Scheduling of the date for the exam is the responsibility of both the student and thesis advisor.

Students should consult the dissertation defense section of this handbook for insight into the defense process. Students may also attend the presentation portion of defenses for other students, to see how the process works. There are four common possible outcomes of the defense:

1. Pass with no changes. The thesis is acceptable as is, and the committee signs at the defense.
2. Pass with minor changes. Minor wording or phrasing changes [often many of them] are required before the thesis is acceptable. The committee typically signs at the defense, but the advisor signs only after changes are reviewed by him/her.
3. Pass with major changes. Substantial changes, which vary with the thesis, are required. The committee defers signature until they review the changes.
4. Fail. The defense and/or thesis are not satisfactory to demonstrate that the student has mastered the research process. Required changes must be made to the thesis, and another defense scheduled.

Students should note that #s 2 and 3 are the most common outcomes, and plan for revision time before university deadlines for thesis submission.

Another note on thesis review is it is common for a thesis draft to require more than one review by the committee before the committee approves it for defense. Depending on the quality of the draft, and faculty time commitments, review may take some time. There is no standard for faculty review times, but students who expect a full committee review of a draft in less than two weeks, and/or assume their first draft will be viewed by faculty as perfect, are very likely to be disappointed. Please plan accordingly.

**4.3 Psychology Practicum**

Students should consult with their advisor shortly before or after entering the program to decide whether a practicum is the desired option, and to determine what form the practicum will take. Six credits of PSYC 792 are required to fulfill this option.

## 4.4 Applying for Graduation

Please consult the University Catalog for the graduation application deadlines. Should you miss this deadline, a [late graduation application](https://registrar.gmu.edu/topics/lategradapp/) will need to be filled out, and your diploma may be delayed. Steps in completing a graduation application for the MA degree can be found on the [CHSS Graduation Checklist Website](http://chss.gmu.edu/graduate/graduation-checklist/checklists).

## 4.5 Accelerated MA Program

This program allows strong undergraduates to take some graduate coursework [typically 6 hours] during their senior year, and potentially to complete the MA in one additional year of work after award of the BA/BS. The requirements of the program are the same as those of the regular MA program.

* + 1. Admission to the Accelerated MA

Admission to the [Psychology Accelerated MA Program](http://psychology.gmu.edu/programs/LA-MA-ACEL-PSYC/application) with a concentration in Cognitive and Behavioral Neuroscience is limited to Mason undergraduates. Generally, interested students should begin working in a faculty lab before applying, and let their advisor know of their interest in the accelerated program - students in CBN graduate programs are admitted to work with a particular faculty member, although changing advisors is possible. Students should apply in early Spring of their junior year - forms are available from the Graduate Programs Coordinator. There is no formal deadline, but once faculty have filled their labs with incoming students for the succeeding Fall, no more students will be considered, so application near the regular MA deadline [Feb 1] is strongly encouraged. GREs are not required for the accelerated program. For MA programs, we receive many more applicants than we can accept. Students most likely to be accepted are those with a strong academic record, a strong record of research with the intended advisor, and some idea of what they would like to do for a thesis project.

**PSYCHOLOGY - RUBRIC FOR EVALUATION OF THESIS/DISSERTATION PROPOSALS (Document)**

Task Description: Describe the research proposed for your dissertation or thesis. Briefly review the background of the field, state the goals, aims or hypotheses of your research, showing how the research is important and addresses unknown questions. Explain your methodology and data analysis plan and demonstrating the feasibility of proposed research.

**A minimum score of “9” is required averaged across all committee members to receive a passing score.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension**  | **Excellent (4-5 points)** | **Competent (2-3 pts)** | **Needs work (0-1 pt)** |
| WRITING30% | Ideas and description are well organized into paragraphs with good topic sentences. Paragraphs are logically ordered, with good transitions between paragraphs and between topics. Sentences are clearly understandable. | Some paragraphs contain a mix of different topics. Paragraphs are notalways related to prior or following paragraphs, or transitions betweenparagraphs are poor. Sentences aresomewhat understandable. | Most paragraphs contain a mix of different topics, and descriptions of single topics are scattered throughout multiple paragraphs. Paragraphs have no logical order. Sentences areunintelligible. |
| CONTENT -background30% | Student has identified a significant question in psychology. Goals of research are clearly stated. Displays superior knowledge/understanding of relevant theoretical and empirical literature. | Student has identified a reasonable question in psychology.Goals of research are stated somewhat vaguely. Displays basic knowledge and understanding of relevant theoretical and empirical literature. | Significance of question to be addressed is uncertain. Goals ofresearch are unclear. Unaware or confused about relevant theoretical and empirical literature. |
| CONTENT -plan40% | Research plan is well designed to address the question, including appropriate controls. Demonstrated the feasibility of the research, shows mastery of the techniques to be used. Proposed analysis is clearly explained, and demonstrates superior understanding of methods and relevant statistical/data analyses. | Research Plan approaches or partly addresses the question; controls are included, but not sufficient. Some understanding of the techniques to be used. Analysis plan demonstrates moderate understanding of data analysis and relevant statistical/data. | Research Plan is poorlydesigned - it will not address the question or hypothesis; relevantcontrols are not included. Project does not seem feasible. Incorrect or missing explanation of how results will be analyzed. |

Score (0 to 5 points for each dimension): \_\_\_\_\_\_\_ out of 15 DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT NAME:\_\_­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ COMMITTEE MEMBER NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PSYCHOLOGY - RUBRIC FOR EVALUATION OF FINAL THESIS/DISSERTATION (Document)**

An average score of “12” is required by all committee members to receive a passing score.

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension**  | **Excellent (4-5 points)** | **Competent (2-3 pts)** | **Needs work (0-1 pt)** |
| WRITING25% | Ideas and description are well organized into paragraphs with good topic sentences. Paragraphs are logically ordered, with good transitions between paragraphs and between topics. Sentences are clearly understandable. | Some paragraphs contain a mix of different topics. Paragraphs are notalways related to prior or following paragraphs, or transitions betweenparagraphs are poor. Sentences are somewhat understandable. | Most paragraphs contain a mix of different topics, and descriptions of single topics are scattered throughout multiple paragraphs. Paragraphs have no logical order. Sentences are unintelligible. |
| CONTENT -Background25% | Student has identified a significant question in psychology. Goals of research are clearly stated. Displays superior knowledge/ understanding of relevant theoretical and empirical literature. | Student has identified a reasonable question in psychology. Goals of research are stated somewhat vaguely. Displays basic knowledge and understanding of relevant theoretical and empirical literature. | Significance of question to be addressed is uncertain. Goals of research are unclear. Unaware or confused about relevant theoretical and empirical literature. |
| CONTENT -Methods and Data Analysis 25% | Results clearly answer the research question(s), analyses include appropriate controls. Shows mastery of the techniques used. Analysis is clearly explained, and demonstrates superior understanding of methods and relevant statistical/data analyses. Excellent use of graphs, figures, and/or tables. | Research approach partly addresses the question; controls are included, but not sufficient. Some understanding of the techniques used. Analysis demonstrates moderate understanding of data analysis and relevant statistical/data. OK use of graphs, figures, and/or tables. | Research is poorly designed – does not address the question or hypothesis; relevant controls are not included. Incorrect or missing explanation of how results were analyzed. Poor use of graphs, figures, and/or tables. |
| CONTENT -Discussion/Implications25% | Interpretation of results is well placed in the context of prior research and linked to theory, Clear and appropriate implications for practice/policy and for future research are provided. | Interpretation of results is only somewhat placed in the context of prior research and linked to theory, Weak implications for practice/policy and for future research are provided. | Interpretation of results is not placed in the context of prior research and linked to theory, Implications for practice/policy and for future research are not provided or are inappropriate. |

Score: \_\_\_\_\_\_\_ out of 20 DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT NAME:\_\_­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ COMMITTEE MEMBER NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PSYCHOLOGY - RUBRIC FOR ORAL PRESENTATION**

Explain the research or project proposed, in progress or performed for your dissertation/thesis/project. Alternatively, explain research performed by others and published in a journal article. Clearly identify goals and significance of research, methodology (including data analysis), results (which may be preliminary for research proposals) and interpretation or implications of the results.

**An average score of “12” is required by all committee members to receive a passing score.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension**  | **Excellent (4-5 points)** | **Competent (2-3 pts)** | **Needs work (0-1 pt)** |
| Knowledge andunderstanding of topic/significance of research25% | The presentation demonstrates adepth of understanding by using relevant and accurate detail. Significance and goals have been clearly identified. | The presentation shows moderate understanding using somewhatrelevant and accurate detail. Significance and goals are partiallyor vaguely described. | The presentation uses littlerelevant or accurate information. Significance and goals have not been identified. |
| Knowledge andunderstanding ofmethodology andresults25% | Methods and data analyses are described well; limitations in methodology are acknowledged. Major results are identified, explained, and placed in context.  | Methods and data analyses are described somewhat; limitations in methodology are not really acknowledged. Major results are not identified, explained, and placed in context very well. | Methods and data analyses are not described or described poorly; limitations in methodology are not acknowledged. Major results are not identified, explained, and placed in context. |
| Communication25% | The presentation is interesting, engaging, and effective. Appropriate eye contact, voice quality, and poise is exhibited. | The presentation basically conveys the main ideas, but is not particularly interesting. Minimal eye contact and poise. | The presentation is uninteresting and/or confusing. Ideas not conveyed well at all. Poor presence. |
| Use of visual aids25% | The presentation includes appropriate, creative, and easily understood visual aids, which complement and enhance the presented information. | The presentation includes some appropriate visual aids, but these are too few, or are difficult tounderstand, or the presenter does not refer to or explain them well. | The presentation includes no visual aids. Or the visual aids distract from or confuse rather than complement the information. |

Score (0 to 5 points for each dimension): \_\_\_\_\_\_\_ out of 20 DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

STUDENT NAME:\_\_­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ COMMITTEE MEMBER NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# COGNITIVE AND BEHAVIORAL NEUROSCIENCE DOCTORAL PROGRAM

## Degree Requirements

(Catalog Year 2021-2022)

* **Cognitive and Behavioral Neuroscience Core (12 credits)**
	+ PSYC 531 – Mammalian Neurobiology
	+ PSYC 555 – Neuroimaging
	+ PSYC 559 – Behavioral Chemistry
	+ PSYC 558 – Neuronal Bases of Learning and Memory
		- or PSYC 685 – Cognitive Neuroscience
* **Quantitative and Research Methods (13 credits)**
	+ PSYC 611 – Advanced Statistics

**Choose one of the following:**

* + PSYC 652 – Quantitative Methods II: Analysis of Variance
	+ PSYC 754 – Quantitative Methods III: Psychological Applications of Regression Techniques
	+ **Elective Statistical Methods**

 Students will choose one course in quantitative or research methods in consultation with an advisor and with the approval of the program faculty. This can include the course not chosen to fulfill the requirement above. May also include PSYC 563 – Lab Methods in CBN

* **Teaching Practicum (2 credits) : PSYC 850**
* **Research credits (6 credits)**

The research credit requirement can be met through completion of a master's thesis (recommended) or other research course as approved by the program.

* **Elective credits**

Students can complete the 72 credit requirement through credits of additional coursework, within or outside the department, as approved by the program/advisor.

Some options for electives outside the department:

 NEUR 602 Cellular Neuroscience

 NEUR 689 Topics in Neuroscience

 BIOL 585 Eukaryotic Cell Biology Laboratory

* **Dissertation (12 -24 credits): PSYC 998, 999**

The dissertation requirement is designed to demonstrate the student’s ability to apply psychological principles to research problems. Once enrolled in PSYC 999, students must follow the university’s continuous registration policy as specified in [Academic Policies](https://catalog.gmu.edu/policies/academic/graduate-policies/#text). Students who defend in the summer must be registered for at least 1 credit of 999.

Students apply to this degree a minimum of 3 credits of PSYC 998 and 3 credits of 999; they may apply a minimum 12 and a maximum of 24 dissertation credits (998 and 999 combined) to the degree. Because of the continuous registration policy, students may be required to register for additional credits of these courses.

**Total: 72 Credits (74 credits of the student also earned the MA in CBN from GMU)**

Requirements may be different for earlier catalog years. See the [University Catalog archives](http://catalog.gmu.edu/).

 Ph.D. students must get approval from their advisor before registering for classes each semester. An e-mail to the advisor with a list of proposed courses for the semester is the most efficient way to request approval.

# DOCTORAL PROGRAM OF STUDY (POS)

The POS should be developed during a student’s first year in the program in consultation with the major advisor. The POS and a semester-by-semester listing of courses should be submitted to the Program Coordinator for approval by the Faculty. Subsequent changes are possible, but any changes to the POS must be approved by the Faculty. You are strongly encouraged to save an electronic copy of this document for future updating. Additionally, prior to obtaining Faculty and Program Coordinator signatures, students should email a copy of their POS to the Graduate Programs Coordinator for editing.

## 2021-2022 PROGRAM OF STUDY FOR DOCTOR OF PHILOSPHY IN COGNTIVE AND BEHAVRIORAL NEUROSCIENCE

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ G#: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Term Admitted: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Proposed Date of Comprehensive Examination: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

PSYCHOLOGY CORE COURSES (12 Hours)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| PSYC 531 | Mammalian Neurobiology |  | 3 |  |
| PSYC 555 | Neuroimaging |  | 3 |  |
| PSYC 559 | Behavioral Chemistry |  | 3 |  |
| Choose One |
| PSYC 558 | Neuronal Bases of Learning and Memory |  | 3 |  |
| PSYC 685 | Cognitive Neuroscience |  | 3 |  |
|  | Total Hours: |

QUANTITATIVE & RESEARCH METHODS COURSES (13 Hours)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| PSYC 611 | Advanced Statistics I |  | 4 |  |
| Choose One |
| PSYC 652 | Quantitative Methods II: Analysis of Variance |  | 3 |  |
| PSYC 754 | Quantitative Methods III: Psychological Applications of Regression Techniques |  | 3 |  |
| Choose Two Elective Courses in consultation with advisor |
|  |  |  | 3 |  |
|  |  |  | 3 |  |
|  | Total Hours: |

Teaching SEMINAR/ETHICS (2 Hours)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| PSYC 850 |  |  | 1 |  |
|  | Total Hours: |

RESEARCH CREDITS (6 Hours)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| PSYC 798 | MA Thesis Proposal \*† |  |  |  |
| PSYC 799 | MA Thesis \*† |  |  |  |
| PSYC 792 | Practicum |  |  |  |
| \* A min. of 6 hours is required for the Thesis option. Students must enroll in 3 hours of PSYC 799 in the first term they are eligible to do so. Thesis hours do not count towards the PhD. † A max. of 6 hours of PSYC 798/799 will count towards the MA. | Total Hours: |

ELECTIVES (12 Hours Minimum)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| At least six hours of electives from outside CBN with approval of your Adviser: |
|  |  |  |  |  |
|  |  |  |  |  |
| At least six hours of CBN electives with approval of your Adviser |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Total Hours:  |

DISSERTATION PROPOSAL & DISSERTATION

(Minimum 3 hours in each w/min. of 12 Total)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
| PSYC 998 | Dissertation Proposal |  |  |  |
|  |  |  |  |  |
| PSYC 999 | Dissertation |  |  |  |
|  |  |  |  |  |
| Students must take at least 12 hours combined of 998/999 with at least 3 hours in each section. No more than 24 hours of PSYC 998/999 will count towards the degree. Students must enroll in 3 hours of PSYC 999 in the first term they are eligible to do so. |  Total Hours: |

ADDITIONAL RESEARCH AND/OR ELECTIVE CREDITS (At least 15 hours)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course # | Title As It Appears On Your Transcript | Term/Year | Hours | Grade |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  | Total Hours: |

 TOTAL HOURS

|  |  |  |  |
| --- | --- | --- | --- |
| Reduction from MA | Applied to PhD | Dissertation | GRAND TOTAL |
|  |  |  | 72 (74 with the MA) |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Student Date

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Advisor Date

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Program Director Date

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Graduate Programs Coordinator Date

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Associate Chair for Graduate Studies Date

# CBN COMPREHENSIVE EXAMINATION

## Goal

The goals of comprehensive examinations are:

 1) Educational – To provide doctoral students with an opportunity to learn, review, and synthesize the current knowledge base in the field of cognitive and behavioral neuroscience .

2) Programmatic – To assist students as they progress toward the process of writing their dissertation proposal

## Eligibility and Registration

 Students normally complete all coursework for the doctoral degree (except dissertation credits), before taking comprehensives. Occasionally, a student who trails only one course from the general psychology core or the methods (not statistics) area may be approved to take comps. Such cases are reviewed by faculty individually. Comprehensive exams are offered twice a year; once in January and once in July (see timeline below). Students must register their desire to take comprehensive exams and form their comprehensive examinations committee at any point during the program. This is done by filling out both the Application for Approval to Take Comprehensive Exams Form and Approval of Ph.D. Comprehensive Exam Committee Form (below) and turning them in to both your advisor and program coordinator. These forms are then taken to the next faculty meeting for approval. The composition of the comprehensive exam committee may be changed up to the date that the specialized reading list is finalized. No change to a committee will be permitted in the case that a retake of the exam is necessary because the student has failed the exam.

Shortly after students are approved to take comprehensives, they will receive more information about the examination, including a sample rating form used by faculty to evaluate student’s written performance, and sample written comments on answers from faculty. Students should also discuss with their advisor the general topic areas to be covered, and what is expected in terms of depth and breadth of answers.

## Procedure

Comprehensive examinations consist of two components:

 - a take-home written exam

 - an oral exam (must take place within one month after written exam is passed)

* + 1. Take-Home (Written)
1. For the take-home component, students will receive 4 questions:
2. the focal points of the questions will be the topic area in which the student expects to pursue a dissertation; the student is not required to identify the specific topic, but the comps will explore the student’s knowledge of the area in which he/she intends to work
3. one question will concern the methods [statistical and laboratory] expected to be used on the dissertation
4. one question will require the student to demonstrate an ability to relate the topic of the dissertation to broader questions within psychology/neuroscience
5. one question will require the student to demonstrate in depth knowledge specific to their proposed dissertation topic
6. a final question will address an additional topic that the student, advisor and committee agree would be appropriate for the student’s area of study
7. In collaboration with their advisor/comps committee chair, students will create a specialized reading list for distribution to their comps committee. This specialized reading list will be revised and finalized by the student and his/her comps committee members. (How long is the reading list supposed to be? Is there a minimum or maximum number of papers expected?)
8. Students will prepare three (3) hypothetical comp questions for consideration by the comps committee members. The questions should reflect following the guidelines in #1. The extent to which the student-submitted questions resemble the student’s final exam questions will vary and be determined by the committee.(Could you provide examples of comp questions?)
9. Before questions are given, a meeting of the student’s comps committee takes place in which the group discusses the topics represented on the student’s reading list(s), the student’s hypothetical questions, and the student’s strategies/progress on studying for comps. After the student leaves this meeting, committee members will form a game plan for who writes which questions, covering which areas.
10. After questions are distributed, students can consult only with their comps committee chair to get clarification/assistance with the comps questions. They may not seek assistance from anyone else after questions are given, unless this is approved by the comps committee chair. All communication between the student and comps committee chair concerning clarification/assistance on the questions must be in written form (email is fine).
11. Students must submit a digital copy of each of the answers to their dissertation advisor, who will distribute the answers to the committee. Answer evaluation will be conducted by the student’s committee.
12. Answers must be turned in by the student within 30 days of distribution of comps questions. Late submission of answers will result in automatic failure.
	* 1. Oral
13. Students take the oral exam only after they have passed all take-home questions.
14. The oral examination will consist of a meeting involving the student and the comprehensive exam committee. Questions will be based on the student’s answers to the take-home questions and the student’s reading lists. This meeting takes place within 30 days (1 month) of notification of passing the written questions. Comps committee members will rate the student’s performance during the oral on a pass/fail basis.
15. These procedures also apply to any retake of the oral.
16. Students who fail the oral examination will be allowed to retake the oral exam component only one additional time at an appropriate and convenient time for the comps committee and the student.
17. Students must pass both the take-home and the oral component of the exam in order to officially pass comprehensive examinations and advance to candidacy.

## Evaluation of Take-Home Answers

1. Answers must be written in APA style (7th edition). Each answer is strictly limited to 10, double-spaced pages (not including references), with one-inch margins on all sides and 12-point font. Readers will stop reading after 10 pages and evaluate answers only on the basis of material in the first 10 pages.
2. Students can use any written source (i.e., journal articles, textbooks, course notes, books) to help them answer the questions. Students are expected to rely heavily on and their reading lists and the current, relevant research literature to answer the questions. Additional sources outside of the student’s reading lists can be used (and may be needed) depending on the question. Students are required to give appropriate references to the sources they use and to include a reference section in their papers. Plagiarism on the exam will be considered academic misconduct, resulting in automatic failure of the entire examination and possible termination from the program. Students who are unclear on what constitutes plagiarism or the improper paraphrasing of others’ work are advised to ask for guidance from their comps committee chair.
3. Answers to exam questions will be assessed along the following 7 dimensions:
4. Comprehensiveness or breadth of diverse material covered
5. Original Integration/Synthesis of material
6. Accuracy – extent to which statements made are factual/correct
7. Scholarly Depth of answer
8. Clarity/Organization of the response
9. Quality of writing
10. Syntax, spelling, coherence, punctuation…
11. APA style and other Formatting Requirements listed in #1 above

 Student answers to each take-home question should be free-standing. That is, for each question, the student should not refer to information included in his/her answers to other take-home questions.

1. Exam answers will be independently evaluated by your committee.
2. Students receive feedback on the results of their written exam through written comments made by their comittee. There are three possible outcomes:
	1. 1) Pass – student passed all 4 written questions,
	2. 2) Rewrite – student must rewrite one or two failed written questions, or
	3. 3) Fail – student failed 3 or more questions.
3. Failure on the written comprehensive examinations is defined by :
	1. failing any three or more questions, or, in the case where a student fails one (1) or two (2) questions,
	2. by failing to earn a “B” or better (i.e., an average score of “8” or better) across all four (4) questions, or
	3. by failing any re-write question.

In all cases, the student must retake the entire comprehensive examination again and this would take place during the next regularly scheduled time for comps. Ordinarily, the questions asked at the time of retake will be new, although the faculty reserves the right to draft questions that, in their judgment, best fit the interests and development of the student. Students who fail comps will only receive one retake opportunity. Students can re-write up to two (2) failed comps questions only if the average score across all questions is an “8” or better. The same up-to-two rewrite policy will be effective the second time if a student must retake the entire exam.

A student who fails the exam the second time will be terminated from the program.

|  |
| --- |
| * + 1. Example Comprehensive Exam Timeline
 |
| Deadline | Action(s) |  |
| May 15 | Student’s intent to take comps is registered and student’s comps committee is formed |  |
| June 1 | Student’s intent to take comps is approved by facultyStudent is notified of comps approval and is sent to sample rating form, the core reading list, and a handout describing the procedures and guidelines for compsStudent begins to construct specialized reading list with advisor |  |
| July 1 | Student submits draft of specialized reading list of advisorStudent reads and prepares |  |
| September 1 | Specialized reading list needs to be finalized and approved by advisorStudent reads and prepares |  |
| October 1 | Meeting of student’s comps committeeStudent submits (at meeting) 3 hypothetical comp questions to committee membersStudent reads and prepares |  |
| January 1 | Comprehensive exam questions given to student |  |
| February 1 | Comprehensive exam answers due |  |
| March 1 | Comprehensive exam questions gradedMeeting of student’s comps committee to determine pass/failure |  |
| March 15 | Results are communicated to the student (including re-write requirements) |  |
| April 15 | Re-writes due to advisor, if student was asked to re-write one or two questions |  |
| Oral exam must take place within one month after all written questions are passed. |

#### APPLICATION FOR APPROVAL TO TAKE COMPREHENSIVE EXAMS

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Expected date of comprehensive exam: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Courses completed by expected date of exam:

**Courses Taken** Semester Taken

1. General Core Requirements

a. Cognitive \_\_PSYC 558 \_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Biological \_\_PSYC 559\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Imaging \_\_PSYC 555\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. Anatomy \_\_PSYC 531\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Quantitative and

 Research Methods \_\_PSYC 611\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (Advanced) \_\_PSYC 652\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Electives (6 credits chosen in consultation with advisor)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date of completion of MA thesis (if applicable): \_\_\_\_\_\_\_\_\_\_\_\_

Approved \_\_\_\_\_\_\_\_\_\_ Not Approved \_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature Date

Advisor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Program Director \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cognitive and Behavioral Neuroscience Program

#### APPROVAL OF PHD COMPREHENSIVE EXAM COMMITTEE

Student's Name

Proposed date of Comprehensive Exam

Members of the committee (Chair)

Approval Date

Program Director

Department Chair

Cognitive and Behavioral Neuroscience Program

#### COMPREHENSIVE EXAMINIATION QUESTION EXAMINATION GRADING FORM

Student Code:

Date of Exam: Current Date:

Reader's Name

General

\_\_\_\_ General Knowledge of relevant Neuroscience field

\_\_\_\_ Research Methods/Statistics

Specialized

\_\_\_\_ Content

\_\_\_\_ Additional question covering content relevant to dissertation research

|  |
| --- |
| Strengths: |

|  |
| --- |
| Weaknesses: |

|  |
| --- |
| Other Comments: |

|  |
| --- |
|  |

12=A+ 11=A 10=A- 9=B+ 8=B 7=B- 6=C+ 5=C 4=C-

In order to pass a question a student must have an average of 8.

Cognitive and Behavioral Neuroscience Program

#### GRADING SHEET FOR COMPREHENSIVE EXAMINATION ANSWERES

A) Comprehensiveness or breadth of diverse material covered

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

B) Original Integration/Synthesis of material

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

C) Accuracy – extent of which statements made are factual/correct

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

D) Scholarly Depth of answer

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

E) Clarity/Organization of the response

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

F) Quality of writing – Syntax, spelling, coherence, punctuation…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

G) APA style and other Formatting Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

H) Extent to which the question was answered completely – directions followed etc…

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 |
| Poor | Fair | OK | Good | Excellent |

# POLICY ON SATISFACTORY PROGRESS AND EXCEPTIONS

Satisfactory progress denotes that a student has (1) satisfactorily completed at least 15 semester hours of graduate coursework during the academic year, (2) satisfactorily met research and teaching obligations, (3) demonstrated professional behavior (e.g., interpersonal skills and adherence to ethical standards) satisfactory in the judgment of the faculty, and (4) satisfactorily met requirements for timely submission of program documents (such as program of study, plan for remediation, etc) and major written work (such as dissertation).

A student, who, in the judgment of the faculty, fails to make satisfactory progress for a given academic year, will be notified of that. In addition, where feasible, the student will be directed as to what steps are necessary to make satisfactory progress in the coming year; this may include development of a remediation plan by the student. A first finding of unsatisfactory progress normally does not result in dismissal from the program, although a student not making satisfactory progress is not normally eligible for financial support until this is remedied. In serious cases, such as clear violation of professional ethics or clear disregard of program obligations, a first finding of unsatisfactory progress may result in dismissal from the program.

A second finding of unsatisfactory progress normally results in dismissal from the program. An exception to this may be made if the student demonstrates, to the satisfaction of the faculty, that the unsatisfactory progress was caused by factors beyond the student's control, that those factors have changed and are highly unlikely to interfere with satisfactory progress again and that there is a clear plan for timely completion of the degree. An exception cannot normally be granted without the recommendation of the student's advisor.

A student who anticipates being unable to make satisfactory progress may petition for a reduction of the minimum hours, or a leave of absence from the program. Reasons which may be acceptable include (1) personal (financial, family, etc) or (2) medical. In either case, the student must demonstrate that the reasons are temporary, that they are likely to be resolved by the end of the proposed leave/waiver period, and that they are unlikely to prevent satisfactory progress after the end of the proposed leave/waiver period. The student must demonstrate a clear commitment to return to the program after the end of any leave period. A waiver or leave of absence cannot normally be granted without the recommendation of the student's advisor. Students should note that the college and university stipulate some time limits for completion of milestones in the program [advancement to candidacy, etc]. Leaves of absence do not extend those time limits.

Students may not receive more than one year of leave/waiver during their entire program. Students who anticipate that personal or medical problems will prevent satisfactory progress for more than one year should resign from the program. If their circumstances change in the future, they will be considered without prejudice in future admissions decisions. However, they will be evaluated with respect to the applicant pool in the year they reapply, and must submit all normal documentation as part of the application.

Students who are dismissed from the program are ineligible to apply for admission in the future.

# POLICIES ON COURSE EXEMPTION

These policies include Reduction of Credit, Transfer of Credit, Credit from Other Institutions after Admissions, and University Consortium. We encourage students to review these polices in the [University Catalog AP.6.5](https://catalog.gmu.edu/policies/academic/graduate-policies/). Questions regarding any of the policies found here should be directed to your faculty advisor and/or the graduate programs coordinator (GPC).

# DOCTORAL DISSERTATION COMMITTEE

This committee is responsible for approving the doctoral dissertation proposal, supervising all aspects of the dissertation such as research design, data collection, data analysis and the writing of the dissertation. This committee reads the various drafts of the dissertation guiding the student in the direction that the dissertation should take and directing the student in the various changes that are necessary. Although the committee has the ultimate responsibility for the dissertation, the Doctoral Dissertation Committee advisor gives the primary guidance to the student.

##  The Composition of the Doctoral Dissertation Committee

 All dissertation committees must consist of at least three members of the graduate faculty, with the dissertation chair being a member of the students’ respective concentration faculty. Only a graduate faculty member with a full-time appointment at Mason may serve as dissertation chair. Other Mason faculty, as well as individuals from outside the university, may be appointed as additional members to the committee. Such appointments are made where the additional member’s expertise and contribution add value to the dissertation, but appointment does not require graduate faculty status.

##  Thesis and Dissertation Committee Composition Form

Once a student has identified those who will serve on their respective committees, they should have each member sign the [Thesis and Dissertation Committee Composition Form](http://psychology.gmu.edu/graduate/formsgrad). The student should obtain both the printed and signed name of each member of their committee along with their respective Program Director and turn the form into the Graduate Programs Coordinator, 2013F DKH. Students are required to submit this form prior to holding a Thesis/Dissertation Proposal defense.

# THE DISSERTATION PROPOSAL

 The dissertation proposal is developed in consultation with the advisor before submission to the committee. Please note that selection of the topic requires a junction of the student’s interests, the advisor’s interests, and financial considerations such as departmental resources and funding. After a draft proposal is developed, the student must submit a dissertation proposal to his/her Doctoral Supervisory Committee.

 Doctoral students may take 1 to 3 credits of dissertation proposal during the semester prior to sitting for comprehensive exams if they have met the following conditions: (a) the advisor has given approval, (b) the student’s request to take comprehensive exams the following semester has been approved by faculty, and (c) the comprehensive exam committee has been approved by faculty.

The doctoral dissertation proposal provides a focused literature review, well developed rationale, a research design, and a data analysis plan. A 10-20 page literature review is a rough guideline, although relevance of coverage is the primary criterion for length. During the period that the Doctoral Supervisory Committee is reviewing a dissertation proposal, the student is required to enroll in a minimum of three (3) hours of PSYC 998 - Dissertation Proposal. Normally the student will make an oral presentation of the dissertation proposal to the entire committee. After this committee approves the dissertation proposal, it is forwarded by the student to the Associate Chair for Graduate Studies for approval. After the Graduate Dean has approved the dissertation proposal, the student is ready to enroll in PSYC 999 - Dissertation.

The following are required in order to register for PSYC 999:

 1. An approved Program of Study

 2. Advancement to candidacy

 3. An approved dissertation committee

 4. An approved dissertation proposal

 5. Changing of all IP grades in PSYC 998 to S

The University does not require continuous registration in Dissertation Proposal (PSYC 998) however, you should consult your advisor to outline your Proposal and Dissertation plans. The University will only certify you as having Part-Time status if you are enrolled in 4.5 credits. Full-time status is awarded when a student is registered for 9 credits or 6 credits with a 20-hour assistantship. International students must follow registration rules set forth by the [Office of International Programs and Services (IOPS)](http://oips.gmu.edu/)

## Registering for Dissertation Proposal (PSYC 998)

 Students wishing to register for Dissertation Proposal (PSYC 998) should contact the Graduate Programs Coordinator for the CRN which corresponds with the advisor’s last name. Continuous enrollment in PSYC 998 (Dissertation Proposal) is not required however, after two consecutive terms of non-enrollment (excluding summer), students will fall out of active status and will be required to submit the Permission to Re-Enroll Form.

## Dissertation Proposal Approval Process

An approved proposal signifies the following:

1. **The proposal contains a clear, focused literature review germane to the dissertation. The committee approves the experimental design, choice of variables investigated, procedures, and the rationale behind the proposal. There is a clear set of hypotheses, and enough detail on planned statistical analysis for the committee to be clear on the planned procedures; the committee is satisfied that the procedures are appropriate to the design, hypotheses, and variables investigated.**

**2. After proposal approval, the committee may NOT require: additional dependent measures and a significant modification to the design.**

 **The committee MAY require: a few additional statistical analyses if outcomes of planned analyses, upon reflection, indicate this would be appropriate; updated literature review when the dissertation is final; and extended discussion based upon data and analysis**

The Proposal Approval Process

* 1. The student selects a dissertation advisor with assent of the faculty member.
	2. Student and advisor select a general area for the dissertation.
	3. Student, in consultation with advisor, develops and revises rough drafts of proposal.
	4. When advisor agrees that the rough draft proposal is far enough along, the draft is distributed to the committee at least 2 weeks before initial committee meeting. At the initial meeting the committee gives approval or directs changes in the scope and design of the dissertation, with feedback on what changes are required before final approval is given.
	5. The number of meetings of the committee will depend upon the progress of the student. Committee goodwill can be maximized by working individually with the advisor between meetings, and making substantial progress before calling another meeting.
	6. Committee signature on the proposal signifies that the committee agrees that the design, hypotheses, statistical analysis, and literature review are appropriate for a dissertation, and the document is well written. Signature of the Associate Chair for Graduate Studies indicates concurrence.

Defending the Dissertation Proposal

* 1. After successfully defending, students should submit the signed [Dissertation Proposal Signature Sheet](http://psychology.gmu.edu/graduate/formsgrad) to the Graduate Programs Coordinator signifying that the committee agrees that the design, hypotheses, statistical analysis, and literature review are appropriate for a dissertation, and the document is well written. Signature of the Associate Chair for Graduate Studies indicates concurrence.
	2. A hard-copy of the proposal should also accompany the signature sheet.
	3. All “IP” grades for PSYC 998 should be changed to “S”.

# ADVANCEMENT TO CANDIDACY

## Requirements for Advancement

Before doctoral students may be advanced to candidacy by the Dean, they should have (a) completed ALL COURSEWORK except for proposal/dissertation hours, including electives; (b) passed comprehensive examination(s); (c) have an approved POS on file; and (d) been recommended by the doctoral program director for advancement.

When a student’s record is reviewed, if the student has completed all courses listed on the Program of Study, they will be permitted to advance. If the student has not completed all courses, they are not allowed to advance until the remaining course(s) has been completed.

 Students wishing to advance to candidacy should ensure they meet all requirements then request that their adviser recommend them for advancement to their program director. Assuming the program director approves, he/she should notify the Graduate Programs Coordinator of their approval via email. Once received in the Graduate Programs Office, the request will be recorded and forwarded onto the Dean’s Office for approval.

## Timeline for Advancement

Please review the Time Limit requirements in the University Catalog. Current Policy states that total time to degree will not exceed nine calendar years from the time of first enrollment as a doctoral student. Doctoral students are expected to progress steadily toward their degree and to advance to candidacy within no more than six years, although college may set a shorter time. <https://catalog.gmu.edu/policies/academic/graduate-policies/#text>

# THE DISSERTATION

 The Doctoral Dissertation Committee guides the student in the preparation of the dissertation. Specific guidelines may be found at: <http://thesis.gmu.edu/index.html>. A minimum total of twelve (12) hours of PSYC 998 and 999 is required for the doctoral degree (at least 3 hours each of 998 and 999). For more information on registering for PSYC 999, please contact the Graduate Programs Coordinator.

## Registering for PSYC 999

Students may not begin enrolling in PSYC 999 until they have:

1. An approved dissertation committee as documented in the [Dissertation/Committee Composition Form](http://psychology.gmu.edu/graduate/formsgrad);
2. Successfully defended their dissertation proposal;
3. A copy of the [Dissertation Proposal Signature Sheet](http://psychology.gmu.edu/graduate/formsgrad) is on file with the Dean’s Office (this is done by submitting a signed copy of the form along with a hard copy of the proposal to the Graduate Programs Coordinator);
4. All IP grades for PSYC 998 have been changed to S and
5. The student has Advanced to Candidacy.

Once a student begins taking 999, he/she is required to maintain continuous enrollment until he/she has graduated with exception to the summer term – provided they are not graduating in the summer. Continuous enrollment is required– regardless of whether the students need the credits. Failure to maintain continuous enrollment will result in the student being required to enroll and pay for any missed credits before their degree will be conferred.

Students are required to enroll in 3 credits of dissertation (PSYC 999) in the term immediately preceding the one in which they submitted their Dissertation Proposal Cover Sheet to the Graduate Program Coordinators Office. In each subsequent semester thereafter, students are required to enroll in at least 3 credits of dissertation until they have completed the minimum 12 hours combined. Only after completing the minimum combined 12 hours of proposal and dissertation combined, may a student enroll in 1 credit of dissertation per term. During this period, the University will only certify you as having part-time enrollment status if you are enrolled in 4.5 credits. Full-time status is awarded when a student is registered for 9 credits or 6 credits with a 20-hour teaching assistantship. International students must follow registration rules set forth by the [Office of International Programs and Services (IOPS).](http://oips.gmu.edu/)

You should discuss your proposal and dissertation credit plans with your advisor to avoid enrolling in unnecessary credits.

## During The Dissertation

 Frequent consultation with the advisor is essential. Occasional brief progress reports to the committee are often appreciated. Committee consultation is usually necessary only when substantial changes must be made to the approved proposal.

## Writing Up the Dissertation

Although committee members may have special expertise (e.g., statistics) requiring consultation during analysis, normally, the analysis, interpretation, and write-up are done by the student in close consultation with the advisor.

The committee, however, is not bound to accept the draft presented. The committee can require some additional changes in writing to clarify the document, etc., or can require a reorganization of major portions of the dissertation before scheduling the oral defense. When the committee requires revision of the dissertation, the student should work closely with the advisor to address all of the issues before calling another committee meeting, or meeting individually with committee members.

Dissertations cannot go to orals without the assent of all committee members, the Program Director, and the Associate Chair for Graduate Studies (see Approval to Defend Form). There may be situations where one member of a committee disagrees with the majority of the committee as to whether a draft is appropriate for defense. If the disagreement cannot be reconciled after extensive discussion, and the faculty member strongly disagrees over the quality of the dissertation, it is appropriate for the faculty member to resign from the committee.

The dissertation cannot then proceed to orals unless and until the student secures agreement of another faculty member to join the committee. Appointing additional committee members follows the same procedures as original appointment of the committee.

## Scheduling the Dissertation Defense

The oral defense of the dissertation should be scheduled through the Graduate Programs Coordinator who informs the Graduate Dean of the defense ***at 21 days before the projected defense date*.** When scheduling the defense, contact the Graduate Programs Coordinator if you need to reserve a room. Students affiliated with programs who have existing lab space are encouraged to reserve those rooms. Once a room reservation has been secured, forward the following information onto the Graduate Programs Coordinator for scheduling:

* + 1. Your full name;
		2. Date and time of defense;
		3. Location – Building and room number
		4. Dissertation committee members names – please indicate who is Chair;
		5. Dissertation title;
		6. ½ - ¾ page abstract approved by committee chair

Do not ask your Dissertation Committee Chair to schedule your oral defense until your committee has seen and approved your last draft. It is very common for several drafts of the dissertation to be required prior to scheduling your defense and, if all goes well, at least one revision after orals. The dissertation represents the culmination of your program and an important contribution to the body of psychological knowledge. It is the faculty’s responsibility to the field and to you that the final product meets a high standard.

## Dissertation Signature Sheets

 Students must have the [Dissertation Signature Sheet](https://library.gmu.edu/udts/SignatureSheets#CHSS) for the Doctor of Philosophy section under the College of Humanities and Social Sciences. This sheet must be signed by all committee members, their Program Director, Associate Chair for Graduate Studies, and Associate Dean for Research and Graduate Programs. **It is the responsibility of the student to collect all signatures**.

 Students are encouraged to make appointments to secure signatures with both the Associate Chair (Dr. Adam Winsler) and Associate Dean (chssgradstudent@gmu.edu). When obtaining the Dean’s signature, students must bring all paperwork required for submission to the library so that copies can be made. Students who wish to obtain a second opinion on the formatting of their Dissertation Signature Sheet may email it to chssgradstudent@gmu.edu and ask for clarification of the formatting.

## Format Review

 The library conducts the review for formatting of all dissertations. Students will submit completed dissertations directly to the library and hand all the requisite paperwork (for University Microfilms International and the National Opinion Research Center). For additional information contact [University Dissertations and Thesis Services](https://library.gmu.edu/udts). Please note the deadline for this to be completed is typically the week before the Dissertation deadline. Failure to complete the formatting will result in failure to graduate that semester.

## Dissertation Submission and Fees

Dissertations are generally due to the library by 5pm on the last Friday of classes. For exact dates, please visit the [Checklist For Graduation website](http://chss.gmu.edu/graduate/graduation-checklist/checklists). Specific information on formatting, fees, ancillary forms, types of paper and number of copies required can be found on the [UDTS web site](http://thesis.gmu.edu/index.html). Late submissions will not be accepted.

# FACULTY RESEARCH INTERESTS

**COGNITIVE AND BEHAVIORAL NEUROSCIENCE PROGRAM**

Jennifer Brielmaier 993-1469 / DK 2044 Animal models of neuropsychiatric conditions; behavioral genetics; environmental and biological risk factors contributing to drug addiction.

Linda Chrosniak 993-4139 / DK 2045

 Research interests include implicit and explicit memory processes, and relationships between stress, cognition and health. In addition, in collaboration with Dr. Flinn, she has investigated effects of trace metals (zinc, copper and iron) on memory processes.

Doris Bitler Davis 993-8817 / DK 2051 Experimental Psychology, with a specialization in animal learning and memory

Ted Dumas 993-9170/Krasnow 109 Neural substrates of memory, neural and cognitive development, stress and behavioral control, real-time brain activity focus in a multidisciplinary setting

Jane Flinn 993-4107 / DK 2022

**Director, Cognitive & Behavioral Neuroscience** The role of metals in learning and memory, including fear conditioning. The effect of metals in neurological conditions, such as Alzheimer's disease, in humans and transgenic mice.

Craig G. McDonald 993-2277 / DK 2057 Cognitive neuroscience; cognitive control, executive function, action monitoring

James Thompson 993-9356 / DK 2056 Cognitive neuroscience, including fMRI and ERPs; biological motion; social cognition; reward processing

Martin Weiner 993-6217/DK 2055 Cognitive neuroscience, Time Perception, Space Perception, Data-sharing

Allison Jack 993-6601/DK 2050 Cognitive Neuroscience, Autism spectrum disorders, fMRI, cerebellum, sex differences, social perception

# GUIDELINES FOR GRADAUTE STUDENT GRIEVANCES AGAINST FACULTY

 The Department recognizes that differences in opinions, complaints, or grievances may occur in the relationships between faculty and students. We believe it is the responsibility of all department members to establish and maintain a climate within which a student problem or complaint can be promptly identified, presented, discussed, and given fair, timely consideration without fear or recrimination or retribution. The following steps are recommended for students who feel they have been unjustly or unfairly treated in the course of their education. (NOTE: Student concerns about faculty behavior that involves sexual harassment or racial/ethnic/gender discrimination should be handled according to the University guidelines description in the University Catalog.)

**Grievance Procedures**

 The Department recommends that a graduate student who has concerns about the professional behavior of a faculty member take the following steps in the following order. Following these procedures will better ensure that the grievance will be resolved expeditiously and fairly.

1. Discuss the problem with the faculty member in question. Many disagreements, disputes, and conflicts between faculty and students are the result of miscommunication or misinformation and can be resolved informally between the concerned parties. Consultation with the academic Advisor usually will be helpful in developing an effective strategy for presenting the concern to the faculty member in question. If a student cannot discuss the concern with his/her Advisor, the student should consult another faculty member.

The faculty member with whom the student consults concerning the grievance incurs certain responsibilities by agreeing to serve in this capacity: (1) To review with the student the Departmental policy and procedures described here. (2) To assist the student in determining the legitimacy of his/her concern and in developing a plan for discussing the concern with the faculty in question. In addition, the advisor may also choose a more active role in the resolution of the grievance by serving as the student's advocate or as a mediator. If the advisor/advocate believes that the faculty member in question has committed an illegal act or ethical violation, he/she should consult the Ethical Guidelines of the American Psychological Association.

2. If the discussion with the faculty member with whom the student has a concern does not produce a fair resolution, the student should consult with his/her Advisor (or other advising faculty) about the feasibility of bringing the matter to the attention of the student's Program Coordinator.

3. If consultation with the Program Coordinator does not produce a satisfactory resolution, the student should consult with his/her advisor (or other advising faculty) about the feasibility of bringing the matter to the attention of the Associate Chairperson for Graduate Studies. The Associate Chairperson may appoint an ad hoc committee charged with working with the student and faculty member in resolving the grievance. This committee may include a graduate student as a member.

4. If consultation with the Associate Chairperson for Graduate Studies does not produce a satisfactory resolution, the student has the option of bringing the matter to the attention of the Department Chairperson.

5. If consultation with the Department Chairperson does not produce a satisfactory resolution, the student should consult with his/her Advisor (or other advising faculty) about the feasibility of bringing the matter to the attention of the office of the Dean of the College of Humanities and Social Sciences.

# APPENDICES

## Mason ID Cards

After registering, each student is required to obtain a university photo identification card.  It must be presented to use the library and is required for admission to university events, when using university facilities and can be used as a debit-card at various food concessions and copy machines. Questions may be directed to the Photo ID Office at (703) 993-1004. You can obtain your G-Card at The SUB 1.  For more information, visit the [University All Card Office](https://masonid.gmu.edu/).

## GMU E-Mail

Students are required to activate and use their GMU E-Mail account to obtain Psychology Department list-serve messages and to access the university mainframe computer and library.  Only GMU E-Mail accounts will be used for official university communication with students. For more information regarding access your E-Mail visit the [ITS Support Center.](https://its.gmu.edu/service/its-support-center/)

## [Parking](https://its.gmu.edu/service/its-support-center/)

Parking decals may be purchased in person in the Parking Services Office located in the Shenandoah Parking Deck, or via [Patriot Web](https://patriotweb.gmu.edu/). You will need a G-Card to purchase parking passes in person.  Handicapped parking permits are available in the Parking Services Office.  Parking registration information is also mailed to students several weeks before the start of the fall semester. For more information contact [Parking Services](http://parking.gmu.edu/).

## Health Insurance/Student Health Services

George Mason provides a variety of health insurance options for graduate students. For students who meet specific qualifications, premiums for the Aetna Student Health Insurance Plan will be subsidized by the University. Students, who do not qualify for the subsidy, may elect to purchase the policy and should contact Student Health Services regarding enrollment. [The Student Health Services Office](http://shs.gmu.edu/) is available to all students at no or reduced fees. To determine eligibility for subsidized insurance, please click [here](https://provost.gmu.edu/academics-and-research/graduate-education/subsidized-graduate-health-insurance).

## Student Wage/Hourly Employees

All student wage/hourly employees are required to use Direct Deposit and must submit a time sheet online in order to be paid. To set up Direct Deposit and record your hours, please visit [Patriot Web](https://patriotweb.gmu.edu/) and click on "Employee Services”,” Time sheets" (to enter your hours) and/or "Pay Information" (to enroll in direct deposit).

## Mailboxes

Each student is assigned a mailbox.  Doctoral student mailboxes are located in the hallway next to the Psychology Graduate Office in David King Hall.  Faculty and Staff boxes are located in the copy room (DK 2001).  MA mailboxes are located in the Physio Lab for CBN, alongside the doctoral mailboxes for Applied Developmental, The ARCH Lab for Human Factors, The Clinic for School Psychology and Robinson 211C for Industrial Organizational.  Be sure to check the mailboxes periodically for any messages that might be left for you by faculty, staff, or students.  Please be aware that student mailboxes are not secured, so use caution in what you place in them.

##  Additional Resources for Graduate Students

The following websites may be helpful to new and returning students:

**General resources for students** - <http://www.gmu.edu/resources/students/>

**Graduate Student Life** - <https://gradlife.gmu.edu/>

**Office of Postgraduate Fellowships and Scholarships** - <http://honorscollege.gmu.edu/pgfs/>

**The Writing Center** - [http://writingcenter.gmu.edu](http://writingcenter.gmu.edu/)

**Office of Research Integrity and Assurance (Human Subjects Review Board)** - [https://rdia.gmu.edu](https://rdia.gmu.edu/)

**College of Humanities and Social Sciences Graduate Student Assistance** - <http://chss.gmu.edu/graduate/for-graduate>

**Counseling and Psychological Services** - <http://caps.gmu.edu/>

**Learning Services** - <https://learningservices.gmu.edu/>

**Multicultural Services** - <https://odime.gmu.edu/>

**Office of Disability Services** - <http://ods.gmu.edu/>

**Student Support and Advocacy Center** - <http://osscm.gmu.edu/>

**University Registrar** - <https://registrar.gmu.edu/>

**Financial Aid** - <http://financialaid.gmu.edu/>

**Student Accounts** - <http://studentaccounts.gmu.edu/>