



# PROGRAM IN NEUROSCIENCE

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INDIANA UNIVERSITY  
College of Arts and Sciences  
Bloomington

## ***Graduate Student Handbook***

October 2016

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**Neuroscience Student Handbook**  
**Program in Neuroscience (NEUS)**  
**College of Arts + Sciences**

**Degree Offered: Doctor of Philosophy (Ph.D.)**

**INTRODUCTION**

The program leading to the Ph.D. degree is designed to give students the opportunity to develop the technical skills and conceptual frame work necessary for a successful research career in neuroscience. Research should be viewed as the student's greatest challenge and the major focus of the student's energy. Training emphasis focuses on: Molecular and Cellular Neuroscience; Behavioral Neuroscience; Cognitive and Computational Neuro-science; and Clinical and Translational Neuroscience. Faculty come from the Departments of Biology, Computer Science (School of Informatics and Computing), Kinesiology (School of Public Health), Medical Sciences (School of Medicine), Physics, Psychological and Brain Sciences, Speech and Hearing Sciences, and Visual Sciences (School of Optometry). Students can also draw upon course offerings through the Center for the Integrative Study of Animal Behavior, the Cognitive Science Program, as well as the Department of Chemistry.

Please Note: This handbook presents the Program in Neuroscience's (PNS) degree as presented in the University Graduate School Bulletin [<http://bulletins.iu.edu/iu/gradschool/2015-2016/index.shtml>]. It does not supersede or modify any Graduate School rule or regulation as outlined in the Bulletin.

**CORE PROGRAM**

**Requirements**

A total of 90 credit hours, including dissertation, is required for the Ph.D. in Neuroscience. The Program in Neuroscience requires 21 credit hours of coursework. Required courses from the 21 credit hours include the following: N500 (3 credits), N501 (3 credits), N650 (6 semesters at 1 credit per semester), plus **other courses chosen by the student's committee and the student. In addition, completion of the major requires completion of a course (at least 1 credit) that includes professional ethics; this course would be selected in consultation with the graduate student's committee** (examples of suitable courses include, but are not limited to, PSY P- 595, COGS Q-510, BIOL Z-620, and VSCI V-792). N500 and N501 must be completed by the fifth semester in residence. Courses may be selected from those listed by the Program in Neuroscience or cross-listed with other departments, divisions, or special programs. Course work must be completed with an average of B+ (3.3) or above. No grades below B- (2.7) may be counted toward degree requirements. An advisory committee, consisting of at least three members of the Graduate Faculty, will plan an individual program of study in consultation with the student. If you are planning to double major with Neuroscience and another department, you are required to have two advisors from each major for a total of four. The Program in Neuroscience is responsible for monitoring the student's progress toward the degree and for making recommendations to the University Graduate School regarding the nomination to candidacy, the appointment of a research committee, the defense of the dissertation, and the conferring of the degree.

### **Financial Aid**

Assistantship or fellowship funding support is provided as described in the graduate student's admission's letter. Along with the assistantship or fellowship, a fee remission or fee scholarship is provided. These awards are available either through the Program in Neuroscience or through participating departments. Assistantships require up to 20 hours of work per week with a faculty member, and graduate assistants often work in both research and teaching. Fellowships are also available to qualified minority students.

### **MAJOR AND MINOR AREAS**

#### **Major Area**

All students also are required to: (1) pass written and oral qualifying examinations by the end of their fifth semester (see Requirements for the Ph.D. with a Double Major on page 5); and (2) successfully write and defend a dissertation in neuroscience.

The Ph.D. degree requires completion of at least 90 credit hours of an advanced course of study. The degree is awarded in recognition of a candidate's command of a broad field of knowledge and accomplishment in that field through an original contribution of meaningful knowledge and ideas.

#### **Ph.D. Minor outside Neuroscience**

If the student elects to undertake a double major, the second major will fulfill the minor requirement in PNS. A minor is required for all PNS Ph.D. students if only a single major is selected. Majors and minors are to be fulfilled by coursework and/or examination as required by the major and minor areas. The PNS single-major student will select at least one minor subject. A minor provides additional breadth and depth to the individual's program. It must be taken outside the major department from among those minors listed in the bulletin or in a specifically approved inter- or intradepartmental area—see departmental entries. (As an exception to this rule, Indiana University doctoral students may take a minor in a Purdue University graduate degree program at Indiana University-Purdue University Indianapolis [IUPUI].) Courses counted toward a minor cannot also be counted toward the major. The determination of the minimum requirements and examination procedure (if any) for the minor is entirely at the discretion of the minor department or program. *Individualized Minor.* In certain cases, special individualized minors (12 or more credit hours of work in two or more programs) or minors not specifically listed in the Graduate School Bulletin may be approved by the dean upon recommendation of the student's advisory committee, provided such approval is requested prior to pursuit of any of the proposed courses of study. Examination procedures (if any) or other requirements (for example, stipulation of the minimum grades acceptable) should also be specified in the proposal to the dean.

#### **Ph.D. Minor in Neuroscience**

Students in other departments and programs who elect to minor in Neuroscience must complete the N500-N501 core sequence and at least 6 credit hours of graduate coursework selected from the offerings listed by the program or cross-listed with other departments. A grade of B (3.0) or better in each course is required.

**Double Majoring** - Requirements for the Ph.D. with a **Double Major**  
[Ph.D. Single-to-Double-Major Application and Instructions](#)

Students may pursue two majors in two departments simultaneously, if so recommended by each department and approved by the dean. Two general requirements pertain to double majors: (1) there must be a substantive relationship between the two major fields, particularly with respect to the topic of the student's dissertation; and (2) all degree requirements for each major must be fulfilled, including the passing of a qualifying examination for both majors. In some instances it may be possible to count the same work toward requirements in both departments. The exact courses of study and examinations required are to be determined by members of the research committee from each of the majors. There must be at least four faculty members on both the advisory and research committees for a double major, with two from each of the majors. Additionally, the research committee must have two chairs (co-chairs), one from each of the majors. If other minor fields are involved, a representative must also be present from each of these. A total of 90 credit hours is required for the Ph.D. degree with a double major. While judicious program planning may permit completion of some double majors within the 90 credit hours, other students may accrue additional hours due to the programs of study required for each major. In recognition of such a possibility, students in the program will be allowed one additional year before they must take the qualifying examinations. A link to the complete set of rules relating to double majors and the appropriate form for applying for a double major is listed above.

**TEACHING**

Students holding an Assistantship are required to assist a faculty member up to 20 hours per week.

**ADVISORY COMMITTEE**

The Program shall assign the student to an advisory committee no later than one year after admission to the Ph.D. program. The advisory committee is chosen in consultation with the student, the student's research adviser, and the Program director. The advisory committee must include at least two members from the major area and one from the minor. At least two members of the advisory committee must be members of the graduate faculty. The names of faculty members nominated to serve on the advisory committee shall be forwarded to the College of Arts + Sciences for approval no later than one year after the student has been admitted to the Ph.D. program. The advisory committee shall approve the student's program of study and counsel the student until the passing of the qualifying examination. The committee must consist of at least three members of the Graduate Faculty who review the student's performance at least annually and provide feedback and guidance. If the student has a double major, no less than two faculty members are chosen from each major.

**EVALUATION**

Students are to be evaluated at least once annually by their advisory committee until admitted to Candidacy. The evaluation is based on both the student's research and coursework. The student will draft a written summary of the committee meeting, obtain approval of the draft from the primary advisor, and send the report to the Program office.

### **QUALIFYING EXAMINATION – SINGLE / DOUBLE MAJOR**

To remain in good standing and be admitted to doctoral candidacy, students must pass a written and oral examination before the end of their fifth semester in residence. Students with a double major may request one additional year before they take the qualifying examination. The qualifying examination shall cover the major subjects and may, at the discretion of the minor department(s), cover the minor subjects as well. Normally, the qualifying exam is taken after the student has completed all course-work for the Ph.D. Students are not required to complete all the coursework for the minor before taking the qualifying exam. However, one cannot be admitted to Ph.D. candidacy until all course requirements (except for total number of hours) are met. Students failing the qualifying examination twice will be dismissed from the Program.

### **ADMISSION TO CANDIDACY**

Following the passing of the qualifying examination and the completion of all coursework, the student will submit a Nomination to Candidacy Form to the University Graduate School which routes to the Program and committee members for approval. The Nomination to Candidacy form is available to students on line at <https://one.iu.edu/> – click on University Graduate School listing to open the on-line forms page or go [here](#). Upon approval of the dean, the student will be admitted to candidacy and, by request, students can be provided a certificate of candidacy. The Program must provide a list of courses the student used to complete their degree, using the List of Coursework Form, which is attached by the Program Recorder in the Candidacy's note section. The date of admission to candidacy will be the date of the successful completion of the qualifying examination, not the date on which the candidacy papers are processed. Admission to candidacy must occur at least 8 months before the Ph.D. degree can be granted.

### **RECORD CHANGES / UPDATES / RECORD KEEPING**

In 1989 the College assumed responsibility for all College of Arts and Sciences graduate student status changes and record changes. Any proposed additions or changes to a student's IU transcript must be approved by the Graduate Office in the College before the registrar will post the change. In addition the Graduate Office in the College reviews the appointment of doctoral advisory committees.

### **Request for Change of Grade**

A request for a change of grade requires approval of the instructor, the chair of the department/program offering the course, and the dean of the school in which the course was offered. Each request for a change of grade must include a justification or explanation for the change. A request for a change of grade may be submitted online using eGrade Change. If the request is approved, a copy will be forwarded to the Office of the Registrar.

### **Removal of I or R Grades**

Normally a grade of Incomplete that has not been removed or extended will change to "F" after one year. (Students may be exempted by graduation if their degrees are conferred before the Incomplete changes to F.) Instructors may remove a grade of I and replace it with the final letter grade by using eGrade Change online. The school dean's approval is not required when replacing an I with the final letter grade. To request additional time and to prevent the Incomplete from changing to F, a student may request an extension using the form linked

below. The websites for the College and the Graduate School (<http://www.indiana.edu/~grdschl/index.shtml>) provide links on the College Graduate Office page to submit requests (Extensions of Incomplete, Family and Medical Leave), to apply for funding (College Travel Awards, College of Arts and Sciences Dissertation Year Research Fellowships), and to appoint your Doctoral Advisory Committee.

When the instructor or the chair of the Research Committee removes a grade of R, the request may be submitted through eGrade Change online. The form will go to the Graduate Office in the College for the school dean's approval. Administrative staff who are responsible for submitting grades on behalf of faculty using this system should make sure to note the approval of the Dissertation Director or Chair in the "notes" section of the request.

### **Request for Transfer of Graduate Credit**

Candidates for the Ph.D. may request the transfer of up to 30 graduate credit hours. All requests for transfer of graduate credit that include courses to be counted toward Ph.D. candidacy must be considered and approved by the College before the student may be formally nominated to Ph.D. candidacy. In each case the student should provide the Director of Graduate Studies (or graduate advisor) with an original transcript of the work to be transferred.

Please note that courses counted toward one advanced degree may not be counted toward another graduate degree at the same level. To be eligible for transfer, courses must be completed at the graduate level, completed with a grade of B or better, and completed within the time limit for the IU degree (seven years for the Ph.D.).

If the Director of Graduate Studies approves the request, please forward the signed request form and the transcript to the Graduate Office in the College. (In each case the original transcript is preferred. If your program sends a photocopy, please be sure to send photocopies of both sides of the official transcript.)

When approved by the College, two copies of the approved request will be returned to the program (one for program files and one for the student). The College Graduate Office will take appropriate actions to ensure that the transferred credits are added to the student's IU transcript. [Request for Transfer of Graduate Credit.](#)

### **Application for Transfer of Department within the Graduate School**

*"Matriculated students wishing to transfer from one department/program within the University Graduate School to another should first consult their graduate advisors or advisory committees and the graduate advisor of the new department about the wisdom of the change. International students desiring to make such a change must also obtain the approval of the Office of International Services." - [Graduate Bulletin](#)*

Students enrolled in a graduate degree program in the College (or enrolled in a Ph.D. program in one of the professional schools), may apply to transfer to another graduate program in the College using the [Application for Transfer of Department](#) form. This form, together with transcripts and letters of recommendation, should be submitted by the student to the new department. The Transfer of Department request should only be used if a student plans to leave her current program without finishing a graduate degree or if she plans to finish the degree before beginning work in the new program. Students completing this form must



provide all information requested on degree plans in the current department/program. If a student plans to finish a degree in her present area sometime in the following semester (for example), the request for transfer of department is inappropriate.

If the new department approves the transfer, please sign the Transfer of Department form, mail an admission letter to the student, and forward the transfer request to the College Graduate Office, Owen Hall. When the transfer has been processed, both the old and new departments will be notified by campus mail.

### **ACADEMIC PROBATION AND TERMINATION**

*"The dean may review a grade record at any time and may place a student on academic probation if the record justifies such action. When the grade point average of a student falls below 3.0 or the student is not making sufficient progress toward the degree, the dean will notify the student that he or she has been placed on probation. Unless the student brings this record up to a 3.0 grade point average or begins making satisfactory progress in the next semester of enrollment, the student will not ordinarily be allowed to continue in the University Graduate School."*--Graduate Bulletin (January 16, 2014)

Academic probation is an opportunity for the student and program to discuss academic progress in a frank and concrete way. Probation serves as a warning to students that their academic career is in jeopardy and offers a clear path to academic success and degree completion. Probation does not become part of the student's transcript and is not meant to be a permanent status. When administered correctly, academic probation can become a positive turning point in a student's academic career. Because students must be on probation for at least one semester before they can be dismissed, the graduate school urges the program to place students on probation at the first sign that they are experiencing serious academic problems.

### **REGISTRATION**

Students enrolling in an IU graduate program for the first time enroll during New Student Registration (in August for the fall semester and in January for the spring semester). Continuing graduate students enroll during Early Registration (in April for the fall semester and in October for the spring semester). In each case students are responsible for their own registration. The graduate programs bear responsibility for all academic advising and registration counseling. We strongly encourage students to enroll during this New Student/Early Registration window in order to ensure that AI paychecks are processed in a timely manner.

For specific dates regarding registration, including open registration dates, late registration dates, refund deadlines and drop/add, please see the [official academic calendar](#) issued by the Office of the Registrar. Additional information regarding enrollment policies can be found in the [Enrollment and Student Academic Information Bulletin](#).

### **Online Registration**

Registration is now available through One.IU. [Student Central](#) has instructions on how to enroll either via Drop/Add or the Enrollment Shopping Cart. If you have trouble enrolling, you may

not be correctly term activated or have a hold on your account. Please contact the Program office for assistance with enrollment issues.

### **Late Registration (Late Registration Forms)**

At the end of the first week of classes in the fall and spring, the registrar disables online registration. To register in the second week of classes or later (or after the AutoW deadline in summer sessions), the student must collect a Late Registration Form from the Graduate Office. At this point the student must collect signatures from each course instructor, the graduate advisor, and the assistant dean before proceeding to Student Central (408 N. Union) for late registration. The Office of the Bursar will assess a Late Registration Fee. The Late Registration fee will assessed starting the Friday before the first day of classes and will be \$60. Late Registration fees will continue to go up by \$10 every Monday following until they reach the maximum amount of \$210. Please be aware that late registration only applies to students who have not enrolled in ANY classes. Students who have already enrolled in a class may utilize late drop/add.

### **Late Registration in Summer Terms**

In the case of summer terms, students may register online via the Late eDrop/Add system until the Automatic W deadline for that term. Please be advised that the student will still be assessed late registration fees.

### **In Absentia Registration**

The program may learn that an off-campus student is unable to register or to adjust her schedule prior to the late period. Upon a request from the student, the program will submit an e-mail request to the Program in Neuroscience with the following information included in your e-mail:

- Type of Request (late registration, drop, add, swap, adjust credit hours)
- Student's Full Name
- Last four digits of student's University ID
- Academic Career (GRAD)
- Term
- Dept/Course/Class/Credit Hours
- Explanation/justification for the request
- Request override of late fees (if there were mitigating circumstances for which the University is responsible)

### **Retroactive Registration**

The [Office of the Bursar](#) charges a retroactive registration fee of \$290 for each semester or summer session of retroactive enrollment in addition to graduate tuition fees. This fee cannot be waived and must be paid in advance of any request being processed by the Bursar. Retroactive registration is most often requested by Ph.D. candidates who have failed to meet the continuing enrollment requirement described in the graduate bulletin. Ph.D. candidates are required to enroll each semester once they pass their qualifying examinations. If a candidate fails to enroll for one semester or more, he must notify the program, who will send a request to the Graduate Office in the College for retroactive registration. The student must ensure that his address is correct in One.IU. This may help prevent the student getting charged for mandatory fees (if they are outside of Bloomington). The College Graduate Office will term

activate the student for each semester of retroactive registration and will forward the request to the Office of the Registrar.

### **Full-Time Enrollment Requirement**

Several offices on campus enforce a full-time enrollment requirement for graduate students, but these offices often differ in their definition of full-time enrollment. For example, the Program in Neuroscience requires their doctoral students to register for 12 credit hours each semester. Graduate students holding loans should consult their lenders with any questions regarding enrollment requirements.

### **Continuing Enrollment**

Students who have passed the qualifying examination must enroll each semester (excluding summer session) for any remaining required course work or dissertation credits; doctoral students on certain fellowships who receive summer fee scholarships have the option of enrolling or not during the summer.

### **G901 Enrollment**

The Graduate School created a new course for dissertation research, G901, in 1987. This course helps students maintain candidacy and continuing enrollment with a flat fee that is considerably less expensive than nonresident graduate tuition. Because G901 always carries 6 credit hours, student academic appointees may enroll in the course and meet the full-time enrollment requirement (6 credit hours) for their appointments. The following description of the eligibility requirements for enrollment in G901 appears in the [university graduate bulletin](#) - page 11, under Continuing Enrollment in the 2015-16 Graduate Bulletin. *Students who have completed 90 credit hours and all requirements for the Ph.D. are eligible to enroll in G901 for a flat fee of \$150 per semester. Enrollment in G901 is limited to a total of six semesters.*

Students who have accumulated 90 or more hours of graduate credit and who hold student appointments as associate instructors, graduate assistants, or research assistants will be required to enroll for at least 6 hours of credit during each semester they continue to hold an appointment. Once doctoral students have accumulated 90 credit hours in completed credits and deferred dissertation credits, and have used up all their G901 courses, they must enroll for a minimum of one hour of graduate credit each semester until the degree is completed. Students at that point who enroll in one hour of dissertation credit will be considered full-time for certification purposes by the Office of the Registrar. In addition, students who plan to complete the degree requirements (defend) during the summer session must enroll for that session in at least one hour of graduate credit.

Ideally, doctoral students would use G901 during their last six semesters at IU, when graduate tuition rates would be higher. Because graduate programs are responsible for determining eligibility and for issuing authorization for enrollment in G901, the graduate secretary or graduate advisor *must* confirm the completion of at least 90 credit hours that will count toward the Ph.D. before issuing an authorization for enrollment in this course.

### **Inter-Campus Transfer**

Graduate students currently enrolled in graduate degree programs on other campuses in the IU system may request permission to enroll in graduate courses on the Bloomington campus.

With approval from the College, such students may register online as temporary, inter-campus transfer students. Interested students should contact the College Graduate Office to initiate the request. An Inter-Campus Transfer student will register as a non-degree student in the Bloomington program that corresponds (or most nearly corresponds) to the student's home program on the other campus.

### **FEES**

The Board of Trustees usually approves new fees for each academic year in late spring or summer. For a correct list of current fees, please see the official fee schedule posted on the website maintained by the Office of the Bursar. You can download fee summaries from the current, as well as previous years on the Bursar's website:

[https://studentcentral.indiana.edu/pay-for-college/cost-of-  
iu/index.html?term=43&residency=1&status=4091&hours=12](https://studentcentral.indiana.edu/pay-for-college/cost-of-<br/>iu/index.html?term=43&residency=1&status=4091&hours=12)

You can find an [interactive fee schedule](#) (Tuition Estimator) on the Bursar's site. Please be advised that this should be used cautiously, as it will not tailor results to a specific student's circumstances. At the [Student Central](#) website, there are answers to many financial questions. At this same site, you can find an article on making good financial choices and suggested strategies for a successful academic career.

### **Unremittable Fees**

The percentage of graduate tuition not covered by the fee remissions is known as the unremittable fee. Graduate tuition fees (both resident and nonresident), are assessed per credit hour, and include the remittable portion of tuition and a small unremittable portion. Fee scholarships and fee remissions cover the remittable portion of graduate tuition (about 96.5%), but they do not cover the unremittable portion (about 3.5%). All students pay the unremittable fee for each credit hour.

The unremittable fee (sometimes called the "dedicated fee") has been described in the Indiana University Operating Budget as follows:

*"Dedicated fee credit hour rates represent the portions of student instructional fee rates ineligible for fee remission. These rates are calculated by dividing projected annual credit hour enrollment into the dedicated student fee allocation requirements on projects being financed through dedicated student fees. The proposed rates represent approximations and are rounded to facilitate assessments. The amount dedicated for debt service will not be affected by either the rounding or differences between projected and actual credit hour enrollments."*

### **Mandatory Fees**

Depending on the number of credit hours in which they are enrolled, all graduate students enrolled on the Bloomington campus must also pay the mandatory fees. The mandatory fees include the student activity fee, the student health fee, the technology fee, repair and rehabilitation fee, and the transportation fee. Mandatory fees and unremittable fees are often confused; please note that they are two different sets of required fees. Fee remissions and fee scholarships do not cover the mandatory fees. In 2015-2016 a full-time (12 credit hours) graduate student on the Bloomington campus paid a total of \$650.38 in mandatory fees each semester.

Ph.D. candidates who are no longer residing in Bloomington and who are conducting research off campus may request a waiver of the mandatory fees. In each case the student should contact the Neuroscience Program who will submit a request to the College Graduate Office for a waiver of the mandatory fees.

### ***LEAVES OF ABSENCE***

The Graduate Student Leave of Absence policy was created to provide College graduate students with an opportunity to take care of uncontrollable events that interfere with their academic progress. During a leave, students are not expected to make progress towards their degree. Although students can complete coursework from previous terms during a leave, they may not attend class or use the leave to catch up in current coursework, prepare for exams, or write dissertations. If approved for a College leave, the academic accommodations are determined individually for each student with the guidance of faculty advisors, the Director of Graduate Studies (DGS), and the College Graduate Office. Students receive a written record of their absence that can be used to support requests to professors for extensions of incompletes, or requests to the University Graduate School for extensions of degree milestones. Although a leave of absence does not guarantee these accommodations, it provides supporting documentation for the request. Depending on the program policy, the leave may also extend funding commitments such as fellowships and AI-ships that are contingent on continued progress towards a degree.

All leave requests are reviewed and granted on a case-by-case basis. Students and faculty who have questions about individual students' circumstances should email the Director of Graduate Student Services at [collgrad@indiana.edu](mailto:collgrad@indiana.edu) for more information.

### ***Requests for Extensions of Incompletes and Degree Milestones during Leaves***

A College leave of absence does not guarantee an automatic or immediate extension of incompletes, degree milestones or standard time limits. Students wishing to receive extensions of incompletes should contact the professors of courses in which they received incompletes to make the request. The Director of Graduate Studies in the Neuroscience may be available to assist with such requests. Extensions of degree milestones and time limits are handled by the University Graduate School, not the College Graduate Office, and all such requests should be made directly to Associate Dean David Daleke at [daleked@iu.edu](mailto:daleked@iu.edu). Students may use documentation of an approved College leave as support for both requests.

### ***Application Process for Leaves***

Students should first discuss the leave, and possible alternatives, with the program. If it is determined that a leave is required, students must fill out the [Graduate Student Leave of Absence Request](#). When the leave request form is submitted to the program, the DGS should meet with the student to create a [Leave Return Plan](#) (see pdf template). This plan should include the following:

- A summary of student progress in the program up to the current term.
- A record of funding commitments and the status of those commitments upon the student's return.
- An expected return date. (Students who are not able to return by this date should request a leave extension and negotiate a new Leave Return Plan)

- An outline for the academic work the student will complete once they resume their studies (including plans to resolve incompletes).

Leaves for medical reasons cannot be approved until the medical certification is received by the College Graduate Office. Persons authorized to provide medical certification include podiatrists, psychologists, optometrists, chiropractors, dentists, doctors of medicine or osteopathy, nurse practitioners and midwives, clinical social workers, and Christian Science practitioners. The program may ask to review the Medical Certification form prior to submission to the College Graduate Office. The student or the program should forward the Leave of Absence Request, the Leave Return Plan, and the Medical Certification form (if the leave is for medical reasons), to the College Graduate Office. All documents will be reviewed and a formal decision will be made. Both the student and the program will be notified regarding the final decision.

### ***TIMELINE FOR GRADUATION***

Keep track of your deadlines and graduation requirements as you progress toward your degree. Listed here are general degree requirements for all graduate students.

Detailed [deadlines specific to theses and dissertations](#) are listed in the Dissertations section. Be sure to check with your program or department for any additional requirements or deadlines.

### ***DISSERTATION***

#### ***Doctoral Dissertation***

All students are required to successfully write and defend a dissertation in neuroscience.

#### ***Research Committee***

To initiate research for the dissertation, the student chooses a professor who agrees to direct the dissertation. In Neuroscience, this is the student's research advisor/mentor. The research committee will consist of the student's research advisor, two or more additional faculty members from the major area, and a representative from each of his minors (see Graduate Bulletin for double major requirements). The committee has the responsibility of supervising the research, reading the dissertation, and conducting the final examination. All members of a research committee must be members of the graduate faculty. At least half of the members of the committee must be full members of the graduate faculty; others may be associate or affiliate members. When the student is ready to begin the dissertation, s/he will schedule a Proposal meeting with all members of his/her committee to discuss and approve the focus of his/her dissertation.

#### ***Submission of your Nomination of Research Committee form***

Your nomination form must be approved six months before you defend your dissertation – however, you must allow extra time for approvals and routing – therefore, please submit your Nomination of Research Committee form seven months in advance of your dissertation defense. The new ruling from the University Graduate School is that both the research committee form and the prospectus be submitted seven months before the defense of the dissertation. The Nomination of Research Committee form is available to students online at

<https://one.iu.edu/collection/iub/university-graduate-school#graduate%20one.iu%20task%20page>.

### **Dissertation Prospectus**

After consultation with and approval by the dissertation director and research committee, the student will submit to the University Graduate School a one- or two-page prospectus of the dissertation research. This accompanies the Nomination of Research Committee form, plus copies of the protocol, if any.

### **Preparation Of The Dissertation**

When the dissertation has been completed, the student should submit an unbound copy to each member of the research committee as the initial step in scheduling the defense of the dissertation. After the committee members have read the dissertation, there should be direct communication (either in writing or orally) between the research committee members about its readiness for defense.

### **Announcement Of Final Examination**

Thirty days prior to the scheduled defense of the dissertation, the candidate must submit to the University Graduate School a one-page announcement of the final examination. The announcement contains a summary of the dissertation (not less than 150 words) which is informative and contains a brief statement of the principal results and conclusions. The announcement must be submitted online at <https://apps.iu.edu/kr-prd/kew/EDocLite?edlName=UGS-PhDDefense.ParentDoctype&userAction=initiate>. Once the final examination has been scheduled, the announced time and place of the defense cannot be changed without the approval of the dean. If you are a double major, you will have a committee chair for EACH major.

### **Final Examination Requirements**

Detailed information on the requirements and procedures for completing the dissertation is available from the Graduate School at <http://graduate.indiana.edu/theses-dissertations/index.shtml> or the Program secretary. As mentioned, in addition to the oral defense of the dissertation before the research committee, a public research seminar is required. At the end of the oral defense, the research committee must vote upon the outcome of the examination.

All candidates must fulfill the following requirements, regardless of the chosen submission method.

- You must defend your dissertation.
- You'll need to decide if you want to register your copyright. Copyright registration is optional, and the fee is \$55 through ProQuest. You should pay the fee directly to ProQuest either electronically or, if submitting using the unbound method, to the University Graduate School by attaching a postal money order to the dissertation submission form. The money order should be payable to ProQuest LLC.
- You'll need to decide whether you want Traditional Publishing or Open Access Publishing. There is no fee for Traditional Publishing if you submit using the electronic method. The Traditional Publishing fee for the unbound paper method is \$65. The fee for Open Access

Publishing is \$95, regardless of submission method. Please visit the [ProQuest LLC website](#) for more information. You should pay the fee directly to ProQuest either electronically or, if submitting using the unbound method, via the University Graduate School. Order should be payable to ProQuest LLC.

- You may also make your dissertation available via open access for free through IU Libraries' IUScholarWorks site.

### **Submission of the Dissertation**

Following acceptance by the research committee the dissertation is submitted to the University Graduate School. Each dissertation must include a title page. Following the title page, there must be an acceptance page signed by the members of the research committee. If you are a double major, you have a committee chair for each major, and both of these chairs must sign the dissertation acceptance page/abstract.

### **Traditional Submission [Unbound Paper Method]**

You must bring the following items to the University Graduate School in Wells Library, Room E546:

- A final copy of your dissertation in a box approximately 9"x11½". Learn more about formatting requirements (<http://graduate.indiana.edu/theses-dissertations/formatting/doctoral.shtml>) .
- [Doctoral dissertation publishing agreement form](#), with a copy of your title page and unsigned abstract attached.
- Payment for the publishing option you selected and, if applicable, your copyright registration. For Traditional Publishing the fee is \$65 while Open Access Publishing is \$160. Please refer to the doctoral publishing agreement form for more information about the difference between the two publishing options. Copyright registration is an additional \$55. Payment is accepted as a postal money order and should be made payable to ProQuest LLC.
- A signed abstract. The signed abstract does not have to be on the same paper used for your unbound dissertation—it can be on copy paper. Learn about [abstract formatting](#) (Under 'Required and Optional Sections' - see example of abstract page, plus other examples).

The University Graduate School must also receive at least one bound copy—two if required by your department—of your dissertation before your degree can be certified or awarded. The bound copy should be on 8 1/2 X 11 inches, watermarked, 100% cotton bond. The first copy is for the library, and the second is for your department, if required. Check with your school/department to see if it requires a second bound copy.

### **Bindery Options:**

- Thesis On Demand  
(800) 334-3628

An online option for IU graduate students. Cost is based on the number of pages and other factors.

### **Thesis On Demand Website**

(<http://indiana.thesisondemand.com/ordersystem/index.php?uri=/orderform/orderform/&page=1>)



### **Electronic Method Submission**

You may submit your dissertation online through ProQuest. Make sure you read all submission instructions before attempting to submit through ProQuest.

Go to ProQuest now (<http://www.etsdadmin.com/cgi-bin/school?siteId=102%20> ).

Once at the site, select “Submit my dissertation/thesis,” and follow the instructions. When creating your account, enter the email address you use most. Once you’ve completed the final step, you will receive an email confirming your submission. You’ll learn by email whether your dissertation requires any formatting changes within about a week. If so, the email you receive will contain instructions for making these.

You must also bring the following items to the University Graduate School in the Wells Library Room E546:

- A signed acceptance page. [Learn about acceptance page formatting requirements »](#)
- A signed abstract. The signed abstract does not have to be on the same paper used for your unbound dissertation—it can be on copy paper. No proxy signatures are allowed.
- 

### **Submission of Dissertation Abstract**

The candidate must also include in the dissertation a 350-word abstract. This is the same as the Prospectus that was attached to the Nomination of the Research Committee and was approved by the research committee (as mentioned above).

As many people will learn about your work through your abstract published in the ProQuest Dissertations & Theses Database, you should spend a good bit of effort in the composition of both the abstract and the title of your work. Try to convey the flavor of your work, not just the bare bones of your findings. You should also work to phrase your title so that it truly describes the contents and will be easily found in the index of the database. The index is based on key words, so be as specific as you can be about your subject. [Go to the database »](#)

Have your entire committee sign the page at the defense and submit the signed abstract to the University Graduate School. The page must be signed by all members of your committee. No proxy, electronic, or copies of signatures are permitted.

### **Time Limitations**

The student must have received acceptance of his or her dissertation and must submit it to the University Graduate School within seven years after passing the qualifying examination. Failure to meet this requirement will result in the termination of candidacy and of the student’s enrollment in the degree program. At that point, the student must apply to the University Graduate School for reinstatement before further work toward the degree may formally be done. See details as outlined in the University Graduate School Bulletin.

### **Degree Conferral**

The University Graduate School will recommend the candidate to the Board of Trustees for the degree only upon completion of all the requirements stated in the Graduate School Bulletin. Degrees are awarded on the last day of each month of the year. Electronic submissions are preferred. For doctoral students, submission (Traditional or Online) to the University Graduate School of the completed dissertation and abstract as described under Submission of the

Dissertation constitutes an application for conferral of the Ph.D. degree. Doctoral students are reminded (a) that the 30-day announcement deadline prior to the defense of the dissertation and the 30-day deadline prior to degree conferral are nonoverlapping time periods; and (b) that research committees frequently require revisions and corrections after the defense of the dissertation and that these revisions must be made before the dissertation is ready for submission to the University Graduate School.

### **Commencement**

All graduate students are encouraged to participate in the Commencement ceremonies. The solemn yet colorful academic pageantry can provide a fitting culmination to a period of intense study and work. At IUB, all Ph.D. candidates are hooded by their professors. Procedures for participating in Commencement may be obtained from the University Graduate School for IUB students and from the Graduate Office for IUPUI students. Please login on One.IU.edu -- [Ph.D. Commencement Participation Application](#)

### **Checklist for Ph.D. Students**

1. Complete your coursework.
2. Pass your qualifying exams. The qualifying exams must be passed at least eight months before graduation.
3. Once you've completed your coursework and passed your qualifying exam, submit your Nomination to Candidacy form. This form must be approved by the University Graduate School before the Nomination of Research Committee form can be approved. Submit your [Nomination to Candidacy](#) e-doc online through one.iu.
4. Once your candidacy has been approved by the University Graduate School, you will have seven years starting with the day you passed your qualifying exams to complete your degree. Beginning the first fall or spring semester immediately following the semester in which you pass your qualifying exams, you are required to enroll every fall and spring semester until you graduate. If you will graduate during the summer term, enrollment in that term is required as well.
5. Submit your [Nomination of Research Committee](#) form online through one.iu. Your nomination form must be approved six months before you defend your dissertation, but please allow an extra month for routing.
6. Submit your [Defense Announcement](#) at least 30 days before you plan to defend.
  - 1) The 30-day deadline applies to the date the University Graduate School receives your announcement, not necessarily when you send it. If possible, try to allow 40 days to give your department extra time to process the announcement. Your announcement will go to your department or program for approval, and then to the department or program research chair for approval, and finally to the University Graduate School for processing.
  - 2) Submit your defense announcement e-doc through the one.iu at <https://apps.iu.edu/kr-prd/kew/EDocLite?edlName=UGS-PhDDefense.ParentDoctype&userAction=initiate>.
  - 3) The summary should be informative and contain a brief statement of the principal results and conclusions. Unlike the abstract, which is intended for specialists in the field, an attempt should be made in the summary to communicate the findings in language and style that can be understood by the University community at large. The summary should be no less than 150 and no more than 300 words in length.

7. Track your announcement e-doc to ensure timely approval. Click on the small, information icon located on the "PhD Defense Announcement" button on our One.IU task page. Then, click on the "Student Reference" link, listed on the right, for more information. Track your announcement e-doc following the instructions in the Student Reference guide on the [University Graduate School One.IU task page](#)»
8. Defend your dissertation in front of your research committee. At your defense, have your committee sign your acceptance page and abstract.
9. Remind your research chair to remove any "R"s from your research or G901 hours.
10. Submit your dissertation for review by the 15th of the month you wish to graduate. Degrees are granted monthly. Deadlines for May and December graduation will vary each year. [Check the deadlines »](#)
11. Submit a signed acceptance page and abstract, as well as a finalized dissertation (including any formatting changes required after initial review by the doctoral recorder) by the 27th of the month you wish to graduate. Deadlines for May and December graduation will vary each year.
12. If you wish to participate in the graduation ceremony, complete the [Ph.D. Commencement Participation Application](#) by September 25 for December Commencement and by February 25 for May Commencement. This is necessary to be listed in the Commencement program, participate in the graduation ceremony, and receive mail from the IU Alumni Association. You may be required to obtain approval from your program director.
13. Verify that the Office of the Registrar has the correct spelling of your name and your correct diploma mailing address by visiting Student Central on Union. The registrar mails the diploma to your home address. You will receive the diploma for your degree within about three months of your award date. [Confirm your address at Student Central on Union »](#)
14. Complete the [Survey of Earned Doctorates Survey \(SED\)](#). You can either submit this electronically, or you can print out the purpose and use survey, the questionnaire, and the confidentiality guidelines survey and turn them in to Wells Library, Room E546 with the rest of your materials. Note that the online version of the SED remains confidential and is reported only in aggregate form or in a manner that does not identify information about an individual.
15. Complete the University Graduate School exit survey. [Take the exit survey »](#)

### **Academic Integrity**

Students are expected to adhere to the highest ethical standards in all their course work and research. Individuals violating that code of conduct are subject to disciplinary action; such breaches could lead to expulsion of the student from Indiana University or to rescision of a degree already granted. To acquaint students more fully with the range of issues relating to academic integrity, The University Graduate School has prepared a document entitled *Integrity in Graduate Study* which can be obtained by calling the office at 812-855-8853). Students also can refer to Indiana University's [Code of Student Rights, Responsibilities, and Conduct](#).( Academic misconduct is any activity that tends to undermine the academic integrity of the institution...it may include, but is not limited to human, hard-copy, or electronic resources, cheating, fabrication, plagiarism, interference, violation of course rules, and facilitating academic misconduct.



## RESOURCES for Graduate Students

Indiana University offers a variety of resources to aid in the completion of your dissertation requirements.

- 1) [The Indiana Statistical Consulting Center](#) offers assistance for all stages of research:
  - Planning projects (experimental design, sample size calculations, grant preparation, and so on)
  - Data analysis
  - Interpreting and reporting results
- 2) [Dissertations and Theses Dissemination and Ordering](#) is a searchable database of dissertation abstracts from around the world, which you can use to see what your contemporaries are researching.
- 3) [IT Training by University Information Technology Services \(UITS\)](#) recommends graduate students participate in these technology tutorials, including:
  - “Word: Publishing Research & Longer Documents”
  - “Word: Collaborative Tools”
  - “Acrobat: Collaboration Features and Full-Featured PDFs”
  - “EndNote: The Basics”

If you can't make it to the course you're interested in, you may [request a copy of the training guides for self-study on the UITS website.](#)

[E-learning, Compare Training Options, Request a Training Guide](#)

## **The Curriculum**

### **NEUS-N 500 Neural Science I (3 cr.)**

Basic introduction and current trends in cellular neurophysiology, neurocytology, synaptic processes, and neuroanatomy.

### **NEUS-N 501 Neural Science II (3 cr.)**

Continuation of Neural Science I emphasizing higher integrative processes such as perception, cognition, and memory. Special emphasis will be placed on timely topics and topics of particular relevance to members of the class.

### **NEUS-N 510 Cellular and Molecular Neuroscience (3 cr.)**

Examines the properties and behavior of neurons and glia, the principal cells of the nervous system. The function of neural cells, the molecules involved in these functions, and the organization of molecular components required to generate cellular activity will be considered.

### **NEUS-N 550 Seminar on Sensorimotor Neuroplasticity (2-3 cr.)**

P: Graduate status and consent of instructor. This course is intended to introduce students to the research methodologies and experimental findings of studies addressing sensorimotor brain plasticity. While the specific content of the course may vary across semesters, the overarching goal is to provide students with a firm grounding in the primary literature representing this area of research so that they become familiar with the mechanisms of neural plasticity from systemwide to molecular levels.

### **NEUS-N 566 Developmental and Cellular Neuroscience (3 cr.)**

P: Knowledge in basic neuroscience and biology. This course examines the vertebrate nervous system from a cellular and molecular perspective. It covers the unique structural and functional properties of both neurons and glia, explores in depth the development of the nervous system, and covers at a molecular level the biological basis for learning and memory.

### **NEUS-N 611 Neural Bases of Visual Sensation, Perception, and Cognition (3 cr.)**

Basic neuroanatomy and neurophysiology of the visual system. Correlations will be made with current, biologically-based cognitive models of vision. The goal of this course is to integrate neural and cognitive approaches to the problems of vision.

### **NEUS-N 612 Ion Channels and Receptors (3 cr.)**

P: Graduate status and consent of instructor. Molecular, biophysical, and biochemical analysis of the major molecules responsible for neural excitability and synaptic transmission: receptor-coupled ion channels, voltage-dependent ion channels, G-protein coupled receptors, transporters, signal transduction pathways, synaptic vesicle-associated proteins, cytoskeletal proteins, classical and novel neurotransmitters and modulators.

### **NEUS-N 613 Neural Mechanisms of Hearing (3 cr.)**

P: Graduate status and consent of instructor. Review of anatomy and physiology of inner ear and central auditory pathways. Special attention to current research on the neural basis of auditory discrimination.

### **NEUS-N 650 Neuroscience Colloquium Series (1 cr.)**

P: Graduate status and consent of instructor. Colloquia in this series cover a broad range of topics in neuroscience research.

### **NEUS-N 700 Readings-Nervous System (arr. cr.)**

Reading in special topics with guidance from a member of the faculty.

### **NEUS-N 800 Research (arr. cr.)**

## **CROSS-LISTED COURSES**

### **Animal Behavior**

- A501 Seminar in the Integrative Study of Animal Behavior (3 cr.) (Depending on topic)
- A502 Research and Professional Ethics in Bio- Behavioral Sciences (1 cr.)

### **Biology**

- Z620 Special Topics in Zoology (depending on topic)

### **Cognitive Science**

- Q551 Brain and Cognition (3 cr.)
- Q610 Networks of the Brain (3 cr.)

### **Computer Science**

- B644 Very Large Scale Integration (3 cr.)

### **Medical Sciences**

- A530 Special Topics (depending on topic)
- A610 Comparative Neuroanatomy (2 cr.)
- P510 Control Systems Theory in Biology (4 cr.)
- P531 Human Physiology I (3 cr.)
- P532 Human Physiology II (5 cr.)
- P541 Advanced Physiology I: Neurophysiology (3 cr.)
- P543 Neurophysiology Seminar (2 cr.)
- P547 Topical Seminar in Physiology (1-5 cr.) (Biophysics of Membrane Transport)
- P548 Neuroethology (2 cr.)

### **Physics**

- P533 Signal Processing and Informational Theory in Biology (3 cr.)
- P582 Biological and Artificial Neural Networks (3 cr.)

### **Psychological and Brain Sciences**

- P417 Animal Behavior (3 cr.)
- P423 Human Neuropsychology (3 cr.)
- P436 Laboratory in Animal Learning and Motivation (3 cr.)
- P504 Learning and Motivation (3 cr.)
- P514 Methods in Biopsychology (2 cr.)
- P526 Neurobiology of Learning and Memory (3 cr.)
- P527 Developmental Psychobiology (3 cr.)
- P537 Neurobiology of Addictions
- P546 Neurophysiological Techniques: Theory and Methods (3 cr.)
- P566 Psychophysiology of Vision (3 cr.)
- P569 Stress Effects on Brain and Behavior (3 cr.)
- P628 Psychophysiology of Somatic Functions (3 cr.)
- P650 Neuroimaging: Theory and Methods (3 cr.)
- P657 Topical Seminar (1-4 cr.) (depends on subject)
- P667 Neuropsychopharmacology (3 cr.)
- P669 Neurobiology of Behavioral Disorders (3 cr.)
- P717 Evolutionary Bases of Learning (3 cr.)

### **School of Public Health**

- C518 The Nature of Addictive Disorders (3 cr.)
- K542 Neuromuscular Control of Movement (3 cr.)

- K543 Cortical Control of Human Movement (3 cr.)
- K641 Topics in Motor Integration (3 cr.) (P: SPH-K 541)
- K690 Seminar in Human Performance (1-3 cr.)

#### **Speech and Hearing Sciences**

- S501 Neural Bases of Speech and Language (3 cr.)
- S513 Speech Anatomy and Physiology
- S515 Topical Seminar (2 cr.) (Conditional)
- S531 Traumatic Brain Injury (2 cr.)
- S537 Diagnosis and Management of Adult Aphasia (3 cr.)
- S540 Voice Disorders (3 cr.)
- S545 Adult Cognitive-Communication Disorders (2 cr.)
- S571 Auditory Anatomy & Physiology (3 cr.)
- S574 Central Auditory Nervous System
- S686 Physiological Research in Speech, Language and Hearing Sciences (3 cr.)

#### **Visual Sciences**

- V514 Neuroanatomy (1.5 cr.)
- V648 Neurophysiology of Vision (1 cr.)
- V767 Electrophysiology of Vision (3 cr.)
- V768 Special Topics in Vision Science (1-4 cr.) (Depending on topic)

## Personnel Program in Neuroscience

**Director: Professor Jonathon D. Crystal**  
[jcrystal@indiana.edu](mailto:jcrystal@indiana.edu)

**Program Manager: Faye Caylor**  
[fcaylor@indiana.edu](mailto:fcaylor@indiana.edu) | 812-855-7756

**Student Services Administrator: Susanne Kindred**  
[sgkindre@indiana.edu](mailto:sgkindre@indiana.edu) | 812-855-9118

**Departmental E-mail:** [neurosci@indiana.edu](mailto:neurosci@indiana.edu)  
**Departmental URL:** [www.indiana.edu/~neurosci](http://www.indiana.edu/~neurosci)

### **Graduate Faculty**

(An asterisk [\*] denotes membership in the University Graduate School faculty with the endorsement to direct doctoral dissertations.)

### **Distinguished Professors**

Ellen D. Ketterson\* (Biology), David B. Pisoni\* (Psychological and Brain Sciences), Richard M. Shiffrin\* (Psychological and Brain Sciences)

### **Linda and Jack Gill Chair of Neuroscience**

Andrea G. Hohmann\* (Psychological and Brain Sciences), Cary Lai\* (Psychological and Brain Sciences), Hui-Chen Lu (Psychological and Brain Sciences), Kenneth Mackie\* (Psychological and Brain Sciences)

### **Provost Professor**

Colin Allen\* (History and Philosophy of Science), Peter M. Todd\* (Psychological and Brain Sciences), Olaf Sporns\* (Psychological and Brain Sciences)

### **Eleanor Cox Riggs Professor**

Aina Puce\* (Psychological and Brain Sciences)

### **Rudy Professor**

Bennett I. Bertenthal\* (Psychological and Brain Sciences), Jorge Jose\* (Physics)

### **Robert H. Shaffer Chair**

Olaf Sporns\* (Psychological and Brain Sciences)

### **Luther Dana Waterman Professor**

Richard M. Shiffrin\* (Psychological and Brain Sciences)

### **Professors**

Randall D. Beer (Cognitive Science Program), Thomas A. Busey\* (Psychological and Brain Sciences), Stephen A. Burns\* (Vision Sciences, School of Optometry), Jonathon Crystal\*



(Psychological and Brain Sciences), Robert de Ruyter\* (Physics), Gregory E. Demas\* (Biology), Brian M. D'Onofrio\* (Psychological and Brain Sciences), Joseph Farley\* (Psychological and Brain Sciences), Peter R. Finn\* (Psychological and Brain Sciences), Preston E. Garraghty\* (Psychological and Brain Sciences), Julia R. Heiman\* (Psychological and Brain Sciences and the Kinsey Institute), William P. Hetrick\* (Psychological and Brain Sciences), Larry E. Humes (Speech and Hearing Sciences), David M. Koceja\* (Kinesiology), Emilia P. Martins\* (Biology), Armin P. Moczek\* (Biology), Laura L. Murray\* (Speech and Hearing Sciences), Brian F. O'Donnell\* (Psychological and Brain Sciences), Dale R. Sengelaub\* (Psychological and Brain Sciences), Roderick A. Suthers\* (Physiology), Cara L. Wellman\* (Psychological and Brain Sciences), Meredith J. West\* (Psychological and Brain Sciences)

### **Associate Professors**

John M. Beggs\* (Physics), Heather B. Bradshaw\* (Psychological and Brain Sciences), Joshua W. Brown\* (Psychological and Brain Sciences), T. Rowan Candy\* (Vision Sciences, School of Optometry), Laura M. Hurley\* (Biology), Karin Harman James\* (Psychological and Brain Sciences), Thomas W. James\* (Psychological and Brain Sciences), Michael N. Jones\* (Psychological and Brain Sciences), Justin P. Kumar\* (Biology), Jennifer J. Lentz\* (Speech and Hearing Sciences), Sharlene D. Newman\* (Psychological and Brain Sciences), Anne L. Prieto\* (Psychological and Brain Sciences), William P. Shofner\* (Speech and Hearing Sciences), G. Troy Smith\* (Biology), Robert H. Withnell\* (Speech and Hearing Sciences)

### **Assistant Professors**

Hannah J. Block\* (Kinesiology, Public Health), Daniel P. Kennedy\* (Psychological and Brain Sciences), Anne C. Krendl\* (Psychological and Brain Sciences), David H. Landy (Psychological and Brain Sciences), Cara C. Lewis (Psychological and Brain Sciences), Franco Pestilli (Psychological and Brain Sciences), Nicholas L. Port\* (Vision Sciences, School of Optometry), Kimberly A. Rosvall\* (Biology), Nicholas S. Sokol\* (Biology), Andrew C. Zelhof\* (Biology)

### **Emeriti**

James C. Craig\* (Psychological and Brain Sciences), George V. Rebec\* (Psychological and Brain Sciences), Dolores M. Schroeder\* (Anatomy), Alfred Strickholm\* (Physiology), William D. Timberlake\* (Psychological and Brain Sciences)

### **Senior Scientists**

Hu Chen (Psychological and Brain Sciences), Andrew King (Psychological and Brain Sciences), Yvonne Lai (Psychological and Brain Sciences), Benjamin M. Ramsden (Psychological and Brain Sciences)

### **Associate Scientists**

Marcy Kingsbury (Biology), Sachiko Koyama (Psychological and Brain Sciences), Alex J. Straiker (Psychological and Brain Sciences)

### **Assistant Scientists**

Christopher Harshaw ((Psychological and Brain Sciences),  
Anna Kalinovsky (Psychological and Brain Sciences)

### **Academic Advisor**

(812) 855-7756



## Requirements for the Ph.D. with a **Double Major**

### **Required forms:**

*Application to Change from a Single to a Double Major for the Ph.D. Degree*

*Appointment of Advisory Committee and Program of Studies for Double Major Ph.D. Degree*

*Nomination to Candidacy for the Ph.D. with a Double Major*

*Nomination of Research Committee for the Ph.D. with a Double Major*

**General Requirements** The two general requirements are that (a) all of the degree requirements for each major must be fulfilled and (b) there must be a substantive relationship between the two major fields, particularly with respect to the student's dissertation topic.

**Admission** Formal acceptance of a student into a double-major degree program by both departments and approval by the Dean of the Graduate School are required. Since double-major applicants normally will have been initially admitted by one department to take a major in one of its fields, the student's original department must approve the change from a single to a double major. The department of the second major must formally accept the student into a degree program through its normal admission procedures and also approve the student's request for a double major.

**Advisory Committee** The minimum number of faculty members for the advisory committee is four, with two persons from each major field. Any minor field not covered by a major shall be represented by one person per minor field. The nomination of faculty members who will be willing to serve on the student's Advisory Committee shall be submitted with the application for admission.

**Minors** For each major, any minors, including the other major field or interdepartmental minors, which are allowed for the student with a single major, may be used to meet the degree requirements. If one or both of the major fields is approved by the Student's Advisory Committee as the minor field for the other, no additional course work beyond the normal amount taken by the single-major student shall be required, and the total number of minors necessary will be reduced by one or two, as the case may be.

**Language and Research -Skill Requirements** If both majors require Language and/or Research-Skill proficiency and there are no proficiency options common to both majors, the student must satisfy the requirements for each major separately. If, however, there are any proficiency options common to both majors, such options may be satisfied by a single instance of demonstrating proficiency. If one major does not have any language/research-skill requirements but the other major does, the lack of requirements by the one field does not nullify the requirements in the other.

**Qualifying Examinations** The double-major student shall pass the Qualifying Examination for both majors, and in some instances it may be possible to count the same work toward requirements in both departments. The student will be nominated for admission to candidacy after the qualifying examination is passed and other requirements are met.

**Time Limits** In consideration that a qualifying examination must be passed for both majors, the seven-year limit on courses taken prior to admission to candidacy will be extended by one year to a total of eight years.

**Research Committee** This committee shall be constituted according to the same guidelines that apply to the Advisory Committee. All the committee members must be members of the Graduate School Faculty and at least half must hold the endorsement to direct dissertations .

**Dissertation Topic** The topic must be relevant to both major fields, as judged by the members of the Research Committee.

**Total Credit Hours** As in the case of the student with a single major, the minimum number of credit hours for the Ph.D. degree is 90. A student with a well-planned course of study majoring in fields that in effect serve as minors in the other should have no difficulty in obtaining the degree with the minimum number of hours.

**Instructions for Applying for the Ph.D. Double Major**  
**After being admitted by the department(s)/school(s) for both majors complete the following form:**

*Application to Change from a Single to a Double Major for the Ph.D. Degree*

1. Write a new goal statement for the second major.
2. Fill out the top of the application form (up to the section for approvals.).
3. Obtain the signature of the department chair of your current PhD program. This signature indicates that your current department is giving you permission to seek a double-major. Obtain the signature of the department chair of the new/second PhD program. This signature indicates that your new department is giving you permission to seek a double-major.
4. Give the application form to your departmental graduate office who will then route the form to the appropriate school/university office(s) for final approval.

**At the appropriate time in your programs, complete the following:**

*Appointment of Advisory Committee and Program of Studies for Double Major Ph.D. Degree*

*Nomination to Candidacy for the Ph.D. with a Double Major Nomination of Research Committee for the Ph.D. with a Double Major*



**Application to Change from a Single to a Double Major for the PhD degree**

Name: \_\_\_\_\_ IU ID #: \_\_\_\_\_  
Last First

**Current Major:** \_\_\_\_\_ **Current Minor:** \_\_\_\_\_

Check box if student will **not** have a minor w/ the double major

Date Qualifying Examination in current major was passed or is scheduled: \_\_\_\_\_

**Second Major Sought:** \_\_\_\_\_

Applicant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Current Major Approval:**

By signing this form, the Department Chair or Graduate Advisor for the current major is granting the student permission to seek a second PhD major.

Signature of current major chair or advisor: \_\_\_\_\_

Printed name of current major chair or advisor: \_\_\_\_\_

Date: \_\_\_\_\_

**Second Major Approval:**

By signing this form the Department Chair or Graduate Advisor for the second major is confirming the student has been fully admitted to the second major with departmental knowledge of the current major.

Signature of chair or advisor for second major: \_\_\_\_\_

Printed name of chair or advisor for second major: \_\_\_\_\_

Date: \_\_\_\_\_

**School Dean Approval (if required):**

The Dean or designate (typically the Associate Dean of Graduate Studies) approves the addition of the second major to the student's program plan.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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

**University Graduate School Approval:**

Approved/Dean

University Graduate School: \_\_\_\_\_ Date: \_\_\_\_\_