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|  FLORIDA ATLANTIC UNIVERSITY | NEW/CHANGE PROGRAM REQUEST Graduate Programs | UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____ |
| | Department Center for Complex Systems and Brain Sciences College Science | |
| Program Name Doctor of Philosophy with Major in Complex Systems and Brain Sciences | <input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program* | Effective Date (TERM & YEAR) Fall 2021 |
| <p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>We are requesting to update the names listed for two existing courses in our program whose titles have recently been changed. Please see the updated catalog entry attached.</p> | | |
| <p><small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small></p> | | |
| Faculty Contact/Email/Phone Gary Perry <perryg@fau.edu> 7-4310 | Consult and list departments that may be affected by the change(s) and attach documentation | |
| Approved by Department Chair <u>Gary W Perry</u> College Curriculum Chair <u>Christopher Beetle</u> Date: 2021.03.15 11:58:39 -04'00' College Dean <u>William David Kalie</u> UGPC Chair <u>Christopher Beetle</u> UGC Chair <u>Paul R. Peltier</u> Graduate College Dean <u>Robert W. Sherry</u> UFS President _____ Provost _____ | Date _____ _____ 03/15/21 Apr 4, 2021 Apr 5, 2021 Apr 5, 2021 _____ _____ | |

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

Doctor of Philosophy with Major in Complex Systems and Brain Sciences

The Center for Complex Systems and Brain Sciences offers a Ph.D. degree that encompasses diverse areas of study. These areas are organized around a unifying conceptual framework that is both timely and exciting since the mathematical and computational tools of non-linear dynamics will provide major breakthroughs in the understanding of mind, brain and behavior. Students will acquire research skills in specific experimental systems in the brain and behavioral sciences while developing theoretical concepts and tools within a specially tailored graduate program.

Admission to Doctoral Study

In addition to meeting all of the University and College requirements for admission to graduate study, applicants for the Doctor of Philosophy (Ph.D.) degree must meet each of the following criteria:

1. The student must have a baccalaureate degree from an accredited college or university;
2. The student must have a quantitative score of 155 or higher on the Graduate Record Examination;
3. The student must have a minimum 3.0 average in the last 60 credits of undergraduate work; and
4. The student must be approved for admission to the program by the faculty of the Center for Complex Systems and Brain Sciences.

Degree Requirements

Students must complete, with grades of "B" or better, a minimum of 80 graduate credits. This must include the following six core courses: Cognitive Neuroscience, Nonlinear Dynamic Systems, Methods in Complex Systems, [Neuroscience 1 and 2](#) [Cellular and Molecular Neuroscience, Systems and Integrative Neuroscience](#) and Proseminar on Research in Complex Systems. Students must also participate in a weekly journal club. The remaining credits may be completed through additional courses, directed research and dissertation credits at the discretion of the student and advisor. A minimum of 12 dissertation credits is required. In addition, the student must complete a research paper, directed by program faculty, by the end of the second year.

A central requirement for the Ph.D. degree program is submission and defense of a dissertation based on original work in an area of specialization acceptable to the student's doctoral committee. Approval of a dissertation proposal by the doctoral committee must precede the experimental and/or theoretical work required.

Admission to Candidacy

Admission to doctoral candidacy depends on the student's successful completion of the core coursework, successful completion of the qualifying research paper, satisfactory annual reviews of the student's progress by program faculty and selection of a program faculty member who is willing to chair the student's doctoral dissertation.

Transfer Credits

Any transfer credits toward requirements for the Ph.D. degree program must be approved by the program faculty as well as by the University. A maximum of 30 credits may be transferred.

| Core Courses - 18 credits | | |
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| Nonlinear Dynamic Systems | ISC 5453 | 3 |
| Cognitive Neuroscience | ISC 5465 | 3 |
| Methods in Complex Systems | ISC 6450 | 3 |

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| Proseminar in Research in Complex Systems | ISC 6937 | 3 |
| Neuroscience 1 Cellular and Molecular Neuroscience | PSB 6345 | 3 |
| Neuroscience 2 Systems and Integrative Neuroscience | PSB 6346 | 3 |
| Electives - 9 credits - <i>Select 9 credits from the following prefixes: EXP, ISC, PSB, and PSY</i> | | 9 |
| Other Requirements - 41 credits - <i>Select 41 credits from additional graduate courses, directed independent study (ISC 6908) and dissertation credits (ISC 7980) as approved by the advisor</i> | | 41 |
| Dissertation - 12 credits | | |
| Dissertation (taken over multiple terms) | ISC 7980 | 12 |
| Minimum Degree Total | | 80 |