

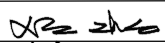
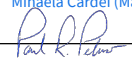


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|  FLORIDA ATLANTIC UNIVERSITY | NEW/CHANGE PROGRAM REQUEST Graduate Programs | | UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____ |
| Department Physics College Science | | Program Name M.S. with Major in Physics | |
| Effective Date (TERM & YEAR) Summer 2023 | | <input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program* | |
| <p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>The Department of Physics wishes to update its Ph.D. program. The M.S. program uses many of the same courses, and must be updated accordingly. The attached proposal makes the following changes:</p> <ul style="list-style-type: none"> * Eliminate the requirement of a recent GRE subject area score. * Update the required TOEFL exam scores for international students to include all three tests currently offered. * Introduce Computational Physics (PHZ 5156, 3 credits) as a required course to reflect the increasing importance of simulation and data analysis methods in the field. * Reduce the required credits of Master's Thesis (PHY 6971) from 9 to 6 to keep the program at 30 credits. <p>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</p> | | | |
| Faculty Contact/Email/Phone Chris Beetle <cbeetle@fau.edu> 7-4612 | | Consult and list departments that may be affected by the change(s) and attach documentation none | |
| Approved by Department Chair  College Curriculum Chair <u>Louis Merlin</u> College Dean  UGPC Chair <u>Mihaela Cardei</u> <small>Mihaela Cardei (Mar 29, 2023 17:02 EDT)</small> UGC Chair  Graduate College Dean <u>William David Kalies</u> UFS President _____ Provost _____ | | Date <u>3/1/2023</u> _____ 03/14/2023 _____ 03/14/2023 _____ Mar 29, 2023 _____ Mar 29, 2023 _____ Mar 29, 2023 _____ _____ _____ _____ | |

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

Physics

Master of Science (M.S.)

The Department of Physics offers the Master of Science (M.S.) degree with major in Physics. The degree should be particularly attractive to those intending to seek jobs in industry or in teaching at the secondary or community college levels. The coursework and research experience provided by the M.S. program will also be of value to students whose eventual goal is a Ph.D., although those students are strongly encouraged to enroll directly into the Ph.D. program if possible. The M.S. in Physics normally requires four semesters beyond the B.S. in Physics, or equivalent. The Department also offers a [Professional Science Master \(P.S.M.\) with Major in Medical Physics](#), an interdisciplinary program, [which is described in its own sub-section](#).

Admission Requirements

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the M.S. in Physics must meet all of the following the departmental requirements:

1. ~~Hold a~~ A B.S. degree, or equivalent, in Physics or a closely related field;
2. ~~A recent (within the past five years) score in the GRE Physics Test (although scores will affect admissions decisions, the department sets no minimum required score for admission);~~
3. ~~2. Earn a~~ A cumulative GPA of 3.0 average or higher, or equivalent, for in the last 60 credits of undergraduate work;
4. ~~3. Approval from~~ Be approved by the Department of Physics; and
5. ~~4. For any student from a non-English-speaking country, a~~ Pass a recent TOEFL exam with a minimum score of 550(PBT), 213(CBT), or 79(IBT) (CBT-213) on the TOEFL exam. This requirement is waived for students from countries whose official languages include English.

Degree Requirements

This M.S. degree has two variants, one requiring a thesis, and the other requiring a passing grade in a Comprehensive Exam administered by the department. Both require 30 credits.

| <u>M.S. Graduate Core Courses - 15 <u>12</u> credits required</u> | | |
|--|----------|-------------------|
| Mechanics | PHY 6247 | 3 |
| Electromagnetism | PHY 6346 | 3 |
| Statistical Mechanics | PHY 6536 | 3 |
| Quantum Mechanics 1 | PHY 6645 | 3 |
| <u>Mathematical Physics Course - 3 credits required</u> | | |
| Mathematical Physics 1 | PHZ 5115 | 3 or |
| Mathematical Physics 2 | PHZ 5116 | 3 |
| <u>Computational Physics Course - 3 credits required</u> | | |
| Computational Physics | PHZ 5156 | <u>3</u> |
| <u>Elective Courses, Thesis Variant - 15 <u>12</u> credits required</u> | | |
| Master's Thesis | PHY 6971 | <u>9</u> <u>6</u> |
| Approved Electives*, ** | | 6 |
| <u>Elective Courses, Non-Thesis Variant - 15 <u>12</u> credits required</u> | | |

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|---|------------------|
| Approved Electives*, ** | 15 12 |
| <i>Non-Thesis M.S. candidates must pass a written or oral Comprehensive Exam administered by the department</i> | |
| Total | 30 |

* All electives must be approved the department's graduate advisor.

** Only 3 credits of Graduate Research (PHY 6918) may be counted toward this degree.