General University Information

President: Roderick McDavis
Dean of Graduate School: Joseph Shields
University website: http://www.ohio.edu
Control: Public
Setting: Rural
Total Faculty: 1,014
Total number of Students: 29,157
Total number of Graduate Students: 5,644

Department Information

Department Chairman: Prof. David Ingram, Chair
Department Contact: Candy Dishong, Assistant Department Administrator

Department Address
1 Ohio University
Clippinger Laboratories
Athens, OH 45701
Phone: (740) 593-1709
Fax: (740) 593-0433
E-mail: dishong@ohio.edu
Website: http://www.ohio.edu/cas/physastro/

TOEFL requirements

The TOEFL exam is required for students from non-English-speaking countries.

PBT score: 590
iBT score: 95

Other admissions information

Additional requirements: The degree from an institution outside the United States must be equivalent to a four-year program in the United States.

For teaching assistantships, the Test of Spoken English is also required for all international students. An examination in English is given upon arrival, and students may be required to enroll in English language instruction.


Tuition

Tuition year 2016–17:
- Tuition for in-state residents
  - Full-time students: $4,094 per semester
- Tuition for out-of-state residents
  - Full-time students: $8,090 per semester

Tuition waiver for TAs and RAs covers all tuition, including out-of-state surcharge.

Credit hours per semester to be considered full-time: 15

Deferred tuition plan:
- Health insurance: Available at the cost of $1,976 per year.
- Other academic fees: General fee $628/semester. Technology fees $130/semester.

Academic term: Semester
Number of first-year students who received full tuition waivers: 2

Teaching Assistants, Research Assistants, and Fellowships

Number of first-year
- Teaching Assistants: 7
- Average stipend per academic year
  - Teaching Assistant: $24,024
  - Research Assistant: $25,991

Financial Aid

Application deadlines
Fall admission:
- U.S. students: January 15
- Int’l. students: January 15
Loans
Loans are available for U.S. students.
Loans are not available for international students.
GAPSFA application required: No
FAFSA application required: Yes

For further information
Address financial aid inquiries to: Graduate Appointments Committee Chair, Department of Physics & Astronomy, 251 Clippinger Laboratories, Ohio University, Athens, OH 45701.
E-mail: physicsgradapps@ohio.edu
Financial aid website: http://www.ohio.edu/cas/physastro/

HOUSING

Availability of on-campus housing
Single students: Yes
Married students: No

For further information
Address housing inquiries to: Office of Residential Housing, Ohio University, 060 Chubb Hall, Athens, OH 45701.
Phone: (740) 593-4090
E-mail: housing@ohio.edu
Housing aid website: http://www.ohio.edu/housing/

Table A—Faculty, Enrollments, and Degrees Granted

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>2015–16 Faculty</th>
<th>Fall 2015</th>
<th>Number of Degrees Granted</th>
<th>2015–16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Master’s</td>
<td>Doctorate</td>
<td>Master’s</td>
<td>Terminal’s</td>
</tr>
<tr>
<td>Astrophysics</td>
<td>5</td>
<td>10</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Biophysics</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Condensed Matter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>11</td>
<td>31</td>
<td>5</td>
<td>–</td>
</tr>
<tr>
<td>Nuclear Physics</td>
<td>11</td>
<td>20</td>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td>Non-specialized</td>
<td>–</td>
<td>3</td>
<td>4</td>
<td>–</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>32</td>
<td>10</td>
<td>–</td>
</tr>
<tr>
<td>Full-time Grad. Stud.</td>
<td>3</td>
<td>7</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>First-year Grad. Stud.</td>
<td>2</td>
<td>4</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

GRADUATE DEGREE REQUIREMENTS

Master’s: Thirty semester hours minimum; 3.0 ("B") average minimum; thesis optional; residence requirement not specified; no exams except in courses and for thesis; no foreign language required.

Doctorate: There is no specified number of course hours but a series of core courses are required; a minimum 3.0 ("B") average must be maintained. A comprehensive review, two semesters continuous residence minimum, and dissertation are required. No foreign language required.

Other Degrees: Interdepartmental studies (e.g., communications, education) and other special programs available by arrangement.

Thesis: Thesis may be written in absentia.

SPECIAL EQUIPMENT, FACILITIES, OR PROGRAMS

The Physics Department occupies two wings of Clippinger Research Laboratories, the Edwards Accelerator Laboratory building, which contains Ohio University’s 4.5 MV high-intensity accelerator; and the Surface-Science Research Laboratory. The Department has a well-equipped and staffed machine shop in addition to specialized research equipment. Ohio University is a member of the MDM Consortium, which owns and operates the 1.3-meter and 2.4-meter telescopes at the MDM Observatory on Kitt Peak in Southern Arizona. Our helium liquefaction facility supports the low-temperature research program and includes a helium recovery system. The Department is home to several unique microscopes, X-ray probes, and sample preparation systems. The in-house computer facilities are excellent and include three 60-node compute clusters, and three NVIDIA TESLA GPU-accelerated workstations (2XK40,8xC1060). In addition, the Ohio Supercomputer Center (OSC) offers statewide computing infrastructure, training, and education.

Table B—Separately Budgeted Research Expenditures by Source of Support

<table>
<thead>
<tr>
<th>Source of Support</th>
<th>Departmental Research</th>
<th>Physics-related Research</th>
<th>Outside Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal government</td>
<td>$2,059,507</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/local government</td>
<td>$1,232</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-profit organizations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business and industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$2,060,739</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table C—Separately Budgeted Research Expenditures by Research Specialty

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>No. of Grants</th>
<th>Expenditures ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astrophysics</td>
<td>4</td>
<td>$231,196</td>
</tr>
<tr>
<td>Condensed Matter Physics</td>
<td>6</td>
<td>$241,406</td>
</tr>
<tr>
<td>Nuclear Physics</td>
<td>11</td>
<td>$1,586,905</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>$1,232</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>$2,060,739</td>
</tr>
</tbody>
</table>

FACULTY

Distinguished University Professor

Drabold, David A., Ph.D., Washington University, 1989. Theoretical condensed matter; computational methodology for electronic structure; theory of topologically disordered material.

Govorov, Alexander O., Ph.D., Institute of Semiconductor Physics (Russia), 1991. Theoretical condensed matter; semiconductor nanostructures; nanoscience.


Jung, Peter, Ph.D., University of Ulm (Germany), 1985. Non-equilibrium statistical physics; nonlinear stochastic processes; pattern formation; biophysics.

Professor


Elster, Charlotte, Ph.D., University of Bonn (Germany), 1986. Nuclear and intermediate-energy theory.

Hicks, Kenneth H., Ph.D., University of Colorado, 1984. Nuclear and intermediate-energy physics.

Hla, Saw-Wai, Ph.D., University of Ljubljana (Slovenia), 1997. Experimental nanoscience.

Ingram, David C., Ph.D., University of Salford (UK), 1980. Departmental Chair. Thin films; atomic collisions in solids; surface physics.

Kordesch, Martin E., Ph.D., Case Western Reserve University, 1984. Surface physics; wide-gap materials.


Theoretical

Astrophysics. Astronomy and Astrophysics: cosmology; time-domain astronomy; dark matter; dark energy; gravitational lensing; baryon acoustic oscillations; supernovae; gamma-ray bursts; black holes; active galactic nuclei; large scale structure; wide-field surveys (LSST, WFIRST, DESI). Chornock, Clowe, Seo, Shields.

Condensed Matter Physics. X-ray characterization of materials; self assembly of nanostructured materials; glass, disordered materials, and soft condensed matter; single atom/molecule manipulation; low temperature scanning tunneling microscopy/spectroscopy/manipulation; single molecule electronics; molecular machines; nanobiosystems; ion beam analysis of materials; surface and thin film analysis and modification; molecular beam epitaxy; pulsed laser epitaxy; nitride materials; optical spectroscopy; semiconductor nanostructures; atomic-scale magnetism; spin-polarized scanning tunneling microscopy; photonics; quantum optics; quantum dots; quantum information. Chen, Hla, Ingram, Kordes, Smith, Stinaff.

Nuclear Physics. Experiments are performed at the on-campus Edward Accelerator Laboratory, or at external facilities including the Thomas Jefferson and Brookhaven National Laboratories. Topics of study include: the quark-gluon plasma, precision tests of the Standard Model, quark substructure of nucleons, spectroscopy of nucleon resonances, exotic nuclei, nuclear reactions—especially as they pertain to astrophysics, statistical nuclear physics, technological applications of nuclear physics. Brune, Frantz, Hicks, Ingram, King, Massey, Roche, Voinov.

Physics and other Science Education. Active learning strategies and materials; Physics outreach. Lucas.

View additional information about this department at www.gradschoolshopper.com