General University Information

President: Dr. Ana Mari Cauce
Dean of Graduate School: Dr. David Eaton
University website: http://www.washington.edu/

Control: Public
Setting: Urban
Total Faculty: 4,300
Total number of Students: 43,000
Total number of Graduate Students: 11,500

Department Information

Department Chairman: Prof. Julianne Dalcanton, Chair
Department Contact: Main Office, Astronomy

Total full-time faculty: 18
Total number of full-time equivalent positions: 12
First-Year Graduate Students: 5
Female First-Year Students: 2
Total Post Doctorates: 14

Department Address
Box 351580
Seattle, WA 98195-1580
Phone: (206) 543-2888
Fax: (206) 685-0403
E-mail: office@astro.washington.edu
Website: http://www.astro.washington.edu

ADMISSIONS

Admission Contact Information
Address admission inquiries to: Graduate Program Advisor, Department of Astronomy, Box 351580, Seattle, WA 98195.
Phone: (206) 543-2888
E-mail: astrgrad@uw.edu
Admissions website: http://depts.washington.edu/astron/academics/graduate-admissions/

Application deadlines
Fall admission:
U.S. students: December 15
Int'l. students: December 15

Application fee
U.S. students: $85
Int'l. students: $85

Admissions information
For Fall of 2016:
Number of applicants: 225
Number admitted: 16
Number enrolled: 5

Admission requirements
Bachelor's degree requirements: A Bachelor's degree in Astronomy, Physics, Mathematics, or other field related to Astronomy is required.
Minimum undergraduate GPA: 3.0

GRE requirements
The GRE is required.

Advanced GRE requirements
The Advanced GRE is not required.

Physics GRE will only be considered if the applicant explains how the physics score provides information about physics ability that is not already clear from their transcript and other elements of the application.

TOEFL requirements
The TOEFL exam is required for students from non-English-speaking countries.
PBT score: 580
iBT score: 92

Other admissions information
Undergraduate preparation assumed: Undergraduate preparation assumed allows for a range of backgrounds of incoming graduate students. However, the equivalent of an undergraduate physics program is typical.

TUITION

Tuition year 2014–15:
Tuition for in-state residents
Full-time students: $5,069 per quarter
Part-time students: $724 per credit
Tuition for out-of-state residents
Full-time students: $9,085 per quarter
Part-time students: $1,298 per credit

For students with teaching or research assistant appointments (TAs or RAs), tuition/fees are reduced to about $1,200 annually. Students with appointments that meet minimum qualifications receive a non-resident tuition waiver in addition to in-state tuition paid by grant/state funding. Students are still responsible for a portion of tuition/fees that cannot be covered.

Credit hours per semester to be considered full-time: 10
Deferred tuition plan: No
Health insurance: Available.
Academic term: Quarter
Number of first-year students who received full tuition waivers: 6

Teaching Assistants, Research Assistants, and Fellowships
Number of first-year
Teaching Assistants: 6
Average stipend per academic year
Teaching Assistant: $23,000
Research Assistant: $32,000
Fellowship student: $30,000

FINANCIAL AID

Loans
Loans are available for U.S. students.
Loans are not available for international students.
GAPS/SAS application required: No
FAFSA application required: No

For further information
Address financial aid inquiries to: Office of Student Financial Aid.
Phone: (206) 543-6101
E-mail: osfa@u.washington.edu
Financial aid website: http://www.washington.edu/students/osfa
SPECIAL EQUIPMENT, FACILITIES, OR PROGRAMS

The Department owns, in consortium with several other universities, a 3.5-meter telescope at Apache Point, NM, and receives 25% of the observing time on this facility. It is operated largely remotely over the internet and used heavily for graduate student dissertation research. UW is also a participant in the Sloan Digital Sky Survey, a project making a digital photometric and spectroscopic map of 25% of the celestial sphere, using a special purpose 2.5-meter telescope also on Apache Point. The Department is a founding member of the future Large Synoptic Survey Telescope. The Department also operates a 0.8-meter telescope in the Cascade Mountains of Washington, for the use of its students. Additional facilities in Seattle include an electron microscopy laboratory for analysis of cosmic dust particles and laboratories for developing astronomical telescopes and instrumentation. Members of the faculty are on teams that supplied instrumentation for the Hubble Space Telescope. Faculty and students are also extensive users of other national ground- and space-based observatories at a variety of wavelengths, and of national supercomputing facilities. The Department operates a large network of Linux workstations in support of all of these efforts.

Table A—Faculty, Enrollments, and Degrees Granted

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>2014-15 Faculty</th>
<th>Enrolment Fall 2014</th>
<th>Number of Degrees Granted 2014-15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td></td>
<td>Master’s</td>
<td>Doctorate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Full-time Grad. Stud.</td>
<td></td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>First-year Grad. Stud.</td>
<td></td>
<td>–</td>
<td>4</td>
</tr>
</tbody>
</table>

GRADUATE DEGREE REQUIREMENTS

Master’s: Thesis not required. Students must complete 36 approved credits, of which 18 are in astronomy courses at the 500 level or above, and must pass a qualifying exam.

Doctorate: Admission Requirements: Entering students are expected to have a strong background in physics and mathematics. Graduation Requirements: Passage of the departmental qualifying examinations. Master’s degree in astronomy or equivalent knowledge; at least three quarters of teaching experience in astronomy; dissertation and final examination. Students interested in work in theoretical astrophysics may take additional courses in physics and mathematics. Students working on other topics may take certain courses in related fields, such as astrophysics, astrophysics, atmospheric sciences, geophysics, or computer science.

Thesis: Thesis may be written in absentia.

FACULTY

Professor

Agol, Eric, Ph.D., University of California, Santa Barbara, 1997. Astronomy. Astrophysics. Relativistic astrophysics and gravity; black holes; active galaxies; accretion disks; extrasolar planets.


Balick, Bruce, B. Ph.D., Cornell University, 1971. Astronomy. Planetary nebulae and late stages of stellar evolution; gas dynamics; active nuclei and their impact on galactic structure.

Brownlee, Donald E., Ph.D., University of Washington, 1971. Astronomy. Interplanetary dust; comet physics; meteoritics; origin of the solar system.


Dalcanton, Juliane, Ph.D., Princeton University, 1995. Astronomy. Galaxy evolution and formation; cosmology; galactic dynamics.

Hawley, Suzanne, Ph.D., University of Texas, 1989. Associate Chair. Astronomy. Low-mass stars; variable stars; star clusters; dwarf galaxies; galactic structure.

Ivezic, Zeljko, Ph.D., University of Kentucky, 1995. Astronomy. Deep sky surveys; quasars; stellar populations; asteroids; origin of interstellar dust.


Associate Professor

Juric, Mario, Ph.D., Princeton, 2006. Astronomy. Large astronomical surveys; data intensive studies; Galactic structure, formation, and evolution; minor bodies of the Solar System.

Assistant Professor

Levesque, Emily, Ph.D., University of Hawaii, 2010. Astronomy. Evolution of massive stars; supernovae; gamma-ray bursters.


Werk, Jessica, Ph.D., University of Michigan, 2010. Astronomy. Role of gaseous components of galaxies in galaxy formation and evolution; optical and ultraviolet spectroscopy.

Professor Emeritus


King, Ivan, Ph.D., Harvard University, 1952. Astronomy. Astrophysics. Stellar populations; star clusters; structure and dynamics of globular clusters.


Sullivan, Woodruff T., Ph.D., University of Maryland, 1971. Astronomy. History & Philosophy of Physics/Science. Astrobiology; galaxies; clusters of galaxies; distance scale; history of radio astronomy.

Wallerstein, George, Ph.D., California Institute of Technology, 1958. Astronomy. Spectra of variable stars; chemical composition of stellar atmospheres; interstellar lines.
Research Professor

Governato, Fabio, Ph.D., University of Rome, 1995. *Astronomy, Astrophysics.* Galaxy and clusters; cosmic structure formation; planet formation.

Research Associate Professor

Becker, Andrew, Ph.D., University of Washington, 2000. *Astronomy.* Time domain science; techniques of massive survey astronomy; data mining.

Research Assistant Professor

Barnes, Rory, Ph.D., University of Washington, 2004. *Astrophysics.* Exoplanets; orbital dynamics; planet formation, astrobiology.

Williams, Benjamin, Ph.D., University of Washington, 2002. *Astronomy.* Nearby galaxies; galaxy evolution; galactic x-ray sources.

Adjunct Professor

Morales, Miguel, Ph.D., University of California, Santa Cruz, 2002. *Astronomy, Astrophysics, Electromagnetism.* Epoch of reionization; cosmology; radio astronomy surveys and instrumentation; radio transients.

Rosenberg, Leslie, Ph.D., Stanford University, 1985. *Astrophysics, Nuclear Physics, Particles and Fields.* Searches for axionic dark matter; surveys of dark matter and energy in the universe; novel particle and nuclear instrumentation; ultralow-noise electromagnetic amplification.

Affiliate Professor


Hughes Clark, Joanne, Ph.D., University of London, 1989. *Astronomy.* Observational astronomy; astrophysics of dwarf galaxies and globular clusters.


Murphy, Thomas, Ph.D., California Institute of Technology, 2000. *Astrophysics, Relativity & Gravitation.* Solar system tests of general relativity; energy and the environment.

Senior Lecturer


Lecturer

Fraser, Oliver, Ph.D., University of Washington, 2008. *Astronomy.* Variable stars; teaching methods.


DEPARTMENTAL RESEARCH SPECIALTIES AND STAFF

Theoretical

*Astrophysics.* *Active galaxies and quasars: nuclear properties; accretion; lensing; high-energy phenomena.* *Astrobiology and planetary studies: extrasolar planet detection and characterization; planetary atmospheres.* *Clusters of stars: evolution; structure.* *Compact objects: degenerate stars; black holes.* *Computational astrophysics: N-body simulations.* *Cosmology: intergalactic medium; large-scale structure formation and evolution; cosmological parameters; dark matter and dark energy.* *Galactic nebulae: H II regions and planetary nebulae.* *Galaxies: structure and dynamics; formation and evolution; dark matter; internal motions.* *Stars: chemical composition; magnetic activity and flares; low-mass stars and brown dwarfs; massive stars.* Agol, Balick, Barnes, Dalcanton, Governato, King, Linnell, McQuinn, Meadows, Quinn, Werk.

Experimental

*Astronomy.* *Active galaxies and quasars: nuclear properties; accretion; luminosity functions and evolution; absorption lines; lensing; BL Lacs and other radio sources; high-energy phenomena.* *Astrobiology and planetary studies: extrasolar planet detection and characterization; planetary atmospheres; asteroids and comets; meteorites.* *Clusters of stars: evolution; abundance determinations; statistical properties.* *Compact objects: degenerate stars; black holes; cataclysmic variables and other compact binaries; gamma-ray bursts; supernovae.* *Cosmology: intergalactic medium; large-scale structure formation and evolution; cosmological parameters; dark matter and dark energy.* *Galactic nebulae: hot and cool components in the interstellar medium: H II regions and planetary nebulae.* *Galaxies: structure and dynamics; formation and evolution; dark matter; gaseous and stellar content; internal motions; extragalactic distance scale; clusters of galaxies; properties of star-forming regions.* *Stars: chemical composition; magnetic activity and flares; circumstellar material; variable stars; low-mass stars and brown dwarfs; massive stars.* *Survey science: data mining; imaging, spectroscopic, and time-domain astronomical surveys.* Agol, Anderson, Balick, Brownlee, Connolly, Dalcanton, Hawley, Hodge, Ivezić, Juric, King, Levesque, Lutz, Meadows, Morales, Sullivan, Sz kody, Wallerstein, Werk, Williams.