

SAINT LOUIS UNIVERSITY™

GRADUATE EDUCATION

Integrated and Applied Sciences + College of Arts and Sciences

Saint Louis University is a world-class Catholic, Jesuit institution educating nearly 13,000 students on two dynamic, urban campuses - in St. Louis, Missouri, and Madrid, Spain. Founded in 1818, the University is celebrating its bicentennial.

With a legacy of innovative academics and research, compassionate health care and faithful service, Saint Louis University attracts a diverse community of scholars who push intellectual boundaries in pursuit of creative, meaningful ways to impact the world, striving to serve a higher purpose and seek a greater good.

OVERVIEW >>

The Integrated and Applied Sciences (IAS) doctoral program was established to broaden student exposure to all areas of science, encourage collaboration across departments and colleges, and better train graduate students to present their research to a more diverse audience. This interdisciplinary program is large enough to provide students with broad exposure to collaborative scientific projects, yet small enough for students to have one-on-one interaction with their faculty mentor. This personalized approach is necessary for developing the communication skills that will enhance employment opportunities for students and, in keeping with SLU's Jesuit tradition, endow them with tools to better contribute to society.

This doctoral program trains scientists for careers in academia as well as chemical, biological, environmental and sustainability science industries and prepares them to collaborate with other professionals. Scientific training takes place in an interdisciplinary environment with faculty from science departments in the College of Arts and Sciences as well as from the Center for Sustainability.

Concentrations include chemistry, biology, physics, environmental science and GIS, and sustainability science.

The distribution of courses in the various IAS areas is determined by the student's dissertation committee with a minimum total of 30 credit hours between all three areas. A total of 42 credit hours are required with the remaining 12 credit hours coming from dissertation credits. An appropriate coursework track is developed by the student and their mentor with subsequent approval by the IAS administrative committee. A typical coursework structure includes:

- Participating departmental core courses (9–12 credit hours)
- Interdisciplinary credits (18–21 credit hours)
- Dissertation credits (12 credit hours)

Assuming successful completion of oral and written comprehensive exams, students should complete the Ph.D. program in four to five years. Students entering the program with an appropriate M.S. degree may complete the program in less time, again assuming successful completion of oral and written comprehensive exams.

CONTACT INFORMATION >>

Paul A. Jelliss, Director

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WEB | www.slu.edu/arts-and-sciences/integrated-and-applied-sciences

APPLICATION DEADLINE >>

Ph.D.

FALL | July 1

SPRING | Nov. 1

SUMMER | April

Deadlines for assistantships are listed online.

DEGREES & PROGRAMS >>

Doctor of Philosophy (Ph.D.) in Integrated and Applied Sciences

COURSES AVAILABLE >>

DAYS NIGHTS WEEKEND ONLINE

APPLICATION REQUIREMENTS >>

- Application form and fee (if applicable)
- Transcript(s)
- Three letters of recommendation
- Résumé or curriculum vitae
- Goal statement

ADMISSION CRITERIA >>

The IAS administrative committee will ensure that the applicant possesses a minimum of a baccalaureate degree from an accredited, recognized college or university in a discipline relevant to the research of the IAS faculty mentor.



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FACULTY >>

Steven Buckner, Ph.D.: Nanomaterials design and application, chemical sensors

Gerardo Camilo, Ph.D.: Tropical ecology, landscape ecology, community ecology of forest insects

Thomas Crawford, Ph.D.: Theoretical and applied investigations of topics centered on geospatial analysis of human-environment interactions and sustainability issues

Damon Hall, Ph.D.: Policy, social science, sustainability science, water

Paul Jelliss, Ph.D.: Organometallic synthesis, fuel cell mediators, solar energy conversion, nanomaterials

Jack Kennell, Ph.D.: Molecular biology, genomic evolution

Istvan Kiss, Ph.D.: Chemical nonlinear dynamics, synchronization dynamics of rhythmic electrochemical systems

Jason Knouft, Ph.D.: Aquatic ecology, biogeography, GIS

Irma Kuljanishvili, Ph.D.: Solid state physics

Richard Mayden, Ph.D.: Evolution, systematics, biodiversity

Susan Spencer, Ph.D.: Cell and developmental biology

David Wisbey, Ph.D.: Solid state neutron detectors, new materials for quantum computing

John Woolschlager, Ph.D.: Computer modeling of environmental systems to address pollution control, water quality improvement, and sustainability issues

Wasit Wulamu, Ph.D.: Remote sensing and GIS, environment

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PROGRAM HIGHLIGHTS >>

Career Paths:

Possible careers include environmental scientist, materials scientist, bioinformatician and computational biologist.

FINANCIAL SUPPORT >>

Sources of tuition and cost-of-living funding are usually through external funding only, such as grant-supported research (e.g. NSF, NIH) or overseas government coverage.

Applicants should contact the program director and indicate their preferred primary mentor (of the track of their choice), who will need to provide a statement of financial support for the prospective student as part of the application process.



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