

Coming soon! Fall 2017 or 2018

Masters in Conservation and Restoration Science

Francisco J. Ayala School of Biological Sciences

University of California, Irvine

Description

The management and conservation of the environment is a growing responsibility of cities, counties, States and the Federal government. In addition, there is an emerging 'restoration economy' associated with the investment of mitigation funds in our natural infrastructure, creating strong employment growth in this area. Current academic programs (B.S. and B.A. programs, academic Masters) have prepared a workforce with the knowledge base and some technical skills required of entry-level positions, but few offer the professional leadership, project and data management, and science translation skills required for leadership and management positions. This is the training gap the the Masters in Conservation and Restoration Science aims to fill.

The Masters in Conservation and Restoration Science (MCRS) through the Department of Ecology and Evolutionary Biology (EEB) and the Center for Environmental Biology (CEB) in the Francisco J. Ayala School of Biological Sciences (Ayala School) will be aimed at training professionals who are prepared to tackle grand challenges in environmental management and stewardship during a time of innovation in our discipline. The target population for this program is working adults and recent university graduates (within last 5 years) who wish to further their education and gain skills essential for careers in fields related to environmental conservation, restoration, and sustainability.

Upon completion of the program, students will be able to lead and collaborate in the planning, design, implementation, and management of complex, large-scale environmental conservation and restoration activities, in agency, non-profit, and for-profit settings. MCRS graduates will have broad knowledge in applied ecosystem and community ecology in addition to training in the use of Geographical Information Systems (GIS), remote sensing, and informatics (data analysis and management). These skills are critical for designing projects, assessing project success, and adaptive management of natural resources. Professional development training (e.g., project and personnel management) will position our graduates for leadership positions in environmental non-profits, agencies, and private consulting firms where managing teams of employees, volunteers, and stewards to conduct long-term and large-scale projects is often required. Such professional training, paired with our world-class research focused faculty presents an opportunity to train science translators, potentially high-demand employees, that would change how new knowledge is used by society for sustainability.

Institution

The MCRS program will be housed in the Ayala School, through a coordinated effort of the Center for Environmental Biology (CEB) and the Department of Ecology and Evolutionary Biology (EEB). EEB is a highly ranked department, with a strong history of scholarship in the basic science underlying conservation and restoration. EEB ranked 6th in the 2010 National Research Council Rankings and the ecological sciences at UCI are collectively ranked in the 82 percentile (5% above the average score of ecology in the UC system and 12% above the average of AAU peers) by Academic Analytics. Historic strengths in community ecology, evolutionary ecology, ecosystem ecology, and physiological ecology all contribute to the capacity to tackle restoration and conservation questions. Moreover, faculty in EEB have a long history of and ongoing efforts in the practice of ecological restoration on our campus reserves and regionally through research partnerships with land managers.

The establishment of the Center for Environmental Biology (CEB) provides distinguished faculty in EEB and other departments with a unique opportunity to interact with local land managers to conduct relevant, cutting edge work in the area of conservation and restoration science. Since 2010, the CEB has worked to facilitate research, education, and outreach in the biological sciences to help develop innovative new solutions to current environmental challenges. The Center provides (1) a forum for information exchange among members of the campus community; (2) a recognized core of expertise visible through conferences, workshops, websites, and publications; (3) coordinated research facilities and infrastructure that serves a community of researchers, educators, and decision makers; and (4) linkages between UCI and external agencies and organizations that have an immediate need for research and students trained in environmental biology. In addition, because of the above features, the CEB provides exceptional individual research opportunities for students, especially prospective master's students in restoration and conservation. The successes of CEB in building relationships with stakeholders in conservation and restoration sciences and implementing programs that link academic scholarship to applied environmental management are a strong indication of UCI's strength in this field and thus program value for prospective students.

Coursework

Pending UC-systemwide approval, the MCRS's two-year program of study will consist of a four part curriculum: a first year sequence of core topic and professional development classes, a summer research/policy internship, a second-year of elective courses, and a team-based capstone experience (that serves as the thesis project). The summer internship and capstone experience will be focused on the stakeholder-engaged science coordinated through CEB with community partners, where students will be embedded in real-world conservation and restoration settings.

The program will provide curriculum that includes:

- 1) experience in core ecological and evolutionary principles underlying conservation and restoration;
- 2) interdisciplinary training in the earth and environmental sciences important for a modern perspective on system-based conservation and restoration;
- 3) training in professional skills required for effective practice and success in leadership positions in non-profit, institute, for-profit, and agency settings;
- 4) research experiences in community-engaged research projects to build bridges between communities of research capacity (universities, institutes, agencies) and need

- (non-profits, land management agencies, private land-holders, and governments); and,
- 5) exposure to social, political and economic principles that guide the application of science to conservation and restoration.

Stay tuned for announcements regarding future MCRS development of alternative curriculum delivery, beginning with courses offered during alternative time-periods, continuing with significant portions being offered online, and finally including an accelerated program for current professionals that reduces the length of the program to a single year.

Fee Structure

The Masters in Conservation and Restoration Science (MCRS) will be a fee-based self-supporting professional Masters degree to be administered through the Francisco J. Ayala School of Biological Sciences (Ayala School) at the University of California, Irvine. The MCRS program will integrate academic scholarship in ecology and evolutionary biology, training in natural resource management and stewardship, professional development (leadership training in agency, non-profit and for-profit conservation), and community engagement (translational partnerships in research and education). Demand for workers in this area is growing and few academic programs provide such opportunities.

Subscribe For News

If you would like to receive announcements regarding the MCRS program, including 1) timeline for development and implementation of the MCRS program and 2) program details and application procedures once they are released, please subscribe to our mailing list with the form below.

[Embedded form, modeled after <https://www.bio.uci.edu/subscribe-to-our-newsletter/>]

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[<-----Subscribes them to a UCI Maillist - Anu and Maillist Admin say UCI maillist should work for our purposes, and non-UCI-affiliated folk without UCInet ID should have no problem subscribing.]

Name

[First]

[Last]

Are you UCI Alumni?

[Y/N]

What is your highest earned degree?

[Dropdown: GED, High School Diploma, BA/BS, Masters, PhD, Other: Fill in]

In what?

[Fill in]

Earned in what year?

[Fill in? Dropdown?]

What is your current position and location?

[Fill in]

What is your level of interest in the MCRS program?

[1-7 likert scale: 1- No interest in enrolling; 2- Very little interest; 3- Little interest; 4- Neutral; 5- Interested; 6- Very interested; 7- I would definitely enroll.]

Are you interested in the program to share with people you know (i.e. students, colleagues, employees?)

[Likert? Y/N?]