The MS Interdisciplinary Studies: Regenerative Agriculture

The Interdisciplinary Master's Degree in Regenerative Agriculture provides students with the opportunity to design a unique course of study leading to the MS degree in Regenerative Agriculture. Students can taper their degree to fit their career pursuits in this exponentially growing field. This dictates that core courses be drawn from multiple academic areas rather than from a single discipline.

Requirements for Admission to the graduate program:

- Satisfactory grade point average (3.0) as specified in Graduate and Post Baccalaureate Admission Requirements.
- Approval by the department and the Office of Graduate Studies.
- An acceptable baccalaureate from an accredited institution, or an equivalent approved by Graduate Studies.
- Committed Faculty Advisor.
- Development of an approved Program Plan, including a Justification Statement and description of the culminating activity, in consultation with the graduate coordinator and the Faculty Advisor.

Requirements for the Interdisciplinary Master's Degree in Regenerative Agriculture:

Course Requirements (30 units) + Culminating Activity (Thesis or Project)

- Completion of all requirements as established by the graduate advisory committee and the Office of Graduate Studies, to include:
    - Completion of an approved program plan consisting of 30 units of 400/500/600-level courses as follows:
    - A comprehensive core of units in the chosen disciplines.
    - At least 18 of the units required for the degree in stand-alone 600-level courses (those not cross-listed with 400/500-level courses).
    - Continuous enrollment is required.
    - Not more than 15 units taken before admission to classified status.
    - Not more than a total of 10 units of Independent Study (697) and Master's Study (699) combined.
- Completion and final approval of a thesis, project or other culminating activity as specified by the graduate advisory committee.
- Approval by the graduate advisory committee and the Graduate Council on behalf of the faculty of the University.

Graduate Requirement in Writing Proficiency:

All students must demonstrate competency in writing skills as a requirement for graduation. Interdisciplinary Studies students will demonstrate their writing proficiency by designating a suitable course in their approved program. Consult the graduate coordinator for further information.

Graduate Grading Requirements:

All courses in the major (with the exceptions of Independent Study - 697, Comprehensive Examination - 696, Master's Project - 699P, and Master's Thesis - 699T) must be taken for a letter grade, except those courses specified by the department as ABC/No Credit (400/500-level courses), AB/No Credit (600-level courses), or Credit/No Credit grading only.

A maximum of 10 units combined of ABC/No Credit, AB/No Credit, and Credit/No Credit grades may be used on the approved program (including 697, 696, 699P, 699T and courses outside the major). While grading standards are determined by individual programs and instructors, it is also the policy of the University that unsatisfactory grades may be given when work fails to reflect achievement of the high standards, including high writing standards, expected of students pursuing graduate study.

Students must maintain a minimum 3.0 grade point average in each of the following three categories: all course work taken at any accredited institution subsequent to admission to the master's program; all course work taken at CSU, Chico subsequent to admission to the program; and all courses on the approved master's degree program.

Graduate study milestones and time Limit:

Students are expected to make consistent progress in their program and towards the completion of their thesis or project, which will be evaluated each semester.

Completion of the degree is typically in four to six semesters, but is flexible as long as the pace is supported by the Faculty Advisory. All requirements for the degree are to be completed within seven years of the end of the semester of enrollment in the oldest course applied toward the degree.

Graduate Advising:

The Graduate Advisor, or faculty mentor, is the primary guide for the student's research. They are also the Chair of the Graduate Committee.

The Graduate Committee includes one to two additional faculty members that assist the graduate by providing additional subject matter expertise and support.

The Graduate Coordinator guides program plan development and implementation and monitors student progress to ensure success in meeting course, committee and graduate studies requirements.

Course Selection:

A Program Plan will be designed, together with the Graduate Coordinator, which will include a required core of Regenerative Agriculture courses, along with electives chosen from various other academic disciplines to supplement and support the student's focus of study. Examples of different program plans can be found here.

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Required Courses

Course number	*Course title*	*Number of Units*	*Semester offered*
AGRI 450	Regenerative Agriculture: Systems and Theory	3	S
AGRI 490	Agricultural Experimental Research (W)	4	F/S
AGRI 695	Graduate Seminar in Regenerative Agriculture	1-4	F/S
MATH 615	Data Analysis for Graduate Research (concurrent with MATH 130)	3	F
IDST 699T	Thesis	3-6	F/S

Additional Possible Courses*

***Please see the university catalog for additional course offerings as well as to confirm course scheduling**

soil science

PSSC 451	Soil Genesis and Classification	3.0	S
PSSC 453	Soil Fertility and Plant Nutrition	3.0	F

basic or applied ecology

BIOL 613	Population Ecology	4.0	S1
BIOL 614	Topics in Ecology and Systematics	1.0-3.0	F2
BIOL 660	Landscape Ecology	3.0	F
BIOL 668	Community and Ecosystem Ecology	3.0	S2
BIOL 672	Plant Ecology	4.0	S1
ERTH 536	Applied Ecology	3.0	S
ERTH 603	Geosciences Seminar III	1.0	F
PSSC 441	Principles of Integrated Pest Management	3.0	S

biological foundations

BIOL 402	Microbial Ecology	4	F
BIOL 414	Plant Physiology	4	S
BIOL 422	General Entomology	4	S
BIOL 433	Herpetology	4	S2
BIOL 434	Ornithology	4	S2
BIOL 435	Mammalogy	4	F
BIOL 436	Waterfowl Biology	3	F
BIOL 442	Plant Morphology	4	F

BIOL 446	Plant Pathology	4	F
BIOL 448	Plant Diversity and Identification	4	S
PSSC 459	Crop Physiology	4	S

hydrology/water management

ERTH 410	Introduction to Watershed Hydrology	3.0	S
ERTH 537	Ecohydrology	3.0	S2
GEOG 426	Water Resource Policy and Planning	3.0	S

environmental monitoring

ERTH 440	Environmental Sensing	3.0	F
ERTH 650	Environmental Monitoring	2.0	F
GEOG 418	Remote Sensing of Environment	3.0	F

planning

AGRI 432	Holistic Management	3.0	S
GEOG 411	Geospatial Analysis and Modeling in GIS	3.0	S
GEOG 429	Environmental and Conservation Planning	3.0	S1

policy

ERTH 652	Science and Environmental Regulations	3.0	F
POLS 653	Environmental Policy and the Law	3.0	INQ

research project development and writing

BIOL 601	Scientific Presentations	2	S
BIOL 602	Scientific Writing	2	S
BIOL 605	Biological Seminar	1	F/S
EDMA 611	Research Seminar in Education	3.0	S
ERTH 600	Graduate Seminar 1	3.0	S

independent study

IDST 697	Independent study	1-4	F/S

Faculty affiliated with Regenerative Agriculture graduate study

Name	*College or Department*	*Research areas of interest*	*Email*
Dr. Cynthia Daley	College of Agriculture	Regenerative Agriculture; IDST MS RA Graduate Program Director	cdaley@csuchico.edu
Dr. Garrett Liles	College of Agriculture	Soil Science; Soil Carbon; RAD Lab Director and Soil Assays	gcliles@csuchico.edu
Dr. Elizabeth Boyd	College of Agriculture	Entomology; Pollinator Habitat; IPM	ebboyd@csuchico.edu
Dr. Hossein Zakeri	College of Agriculture	Agronomy; Cover Crops;	hzakeri@csuchico.ecu
Dr. Logan Smith	College of Agriculture	Sustainable Feeding Systems; Molecular Techniques in Soil Microbiome Identifiers	lbsmith@csuchico.edu
Dr. Jamal Javanmardi	College of Agriculture	Sustainable Vegetable Production;	jjavanmardi@csuchico.edu
Dr. Kasey DeAtley	College of Agriculture	Sustainable Feeding Systems; Composting Animal Biosolids	kdeatley@csuchico.edu
Dr. Jake Brimlow	College of Agriculture	Natural Resource Economics	jbrimlow@csuchico.edu
Dr. John Knowles	Earth and Envt. Sciences	Eddy Covariance Technology; Flux Tower Data Analysis	jfknowles@csuchico.edu
Dr. Christine Carroll	College of Agriculture	Natural Resource Economics	cicarroll@csuchico.edu
Dr. Sandrine Matiasek	Earth and Envt. Sciences	Water Quality	smatiasek@csuchico.edu
Noelle Ferdon Brimlow	Political Science	USDA Food Hub; Food Policy	cnferdon@csuchico.edu
Whitney Brim-DeForest	College of Agriculture	Sustainable rice systems; cover crops; weed management	wbrim-deforest@csuchico.edu

Helpful Links

Chico State Center for Regenerative Agriculture and Resilient Systems

https://www.csuchico.edu/regenerativeagriculture/

Graduate programs at Chico State

https://www.csuchico.edu/graduatestudies/programs/index.shtml

IDST MS program

https://www.csuchico.edu/graduatestudies/programs/interdisciplinary-studies-ma-ms.shtml

Graduate Studies Forms & Policies

https://www.csuchico.edu/graduatestudies/forms-policies/index.shtml