

**Course Outline of Record**

1. Course Code: NR-059
2.
  - a. Long Course Title: Careers In Natural Res & Agri Sciences
  - b. Short Course Title: CAREERS IN NR & AG
3.
  - a. Catalog Course Description:  
 This course provides students with an overview of professions in Natural Resources and Agricultural Sciences along with educational paths to become qualified for those occupations.
  - b. Class Schedule Course Description:  
 This course provides students with an overview of professions in Natural Resources and Agricultural Sciences along with educational paths to become qualified for those occupations.
  - c. Semester Cycle (if applicable): N/A
  - d. Name of Approved Program(s):
    - DESERT ECOLOGIST Certificate of Achievement
    - TURFGRASS MANAGEMENT AS Degree for Employment Preparation
    - TURFGRASS MANAGEMENT Certificate of Achievement
4. Total Units: 3.00      Total Semester Hrs: 54.00  
 Lecture Units: 3      Semester Lecture Hrs: 54.00  
 Lab Units: 0      Semester Lab Hrs: 0  
 Class Size Maximum: 30      Allow Audit: No  
 Repeatability No Repeats Allowed  
 Justification 0
5. Prerequisite or Corequisite Courses or Advisories:  
*Course with requisite(s) and/or advisory is required to complete Content Review Matrix (CCForm1-A)*  
*N/A*
6. Textbooks, Required Reading or Software: *(List in APA or MLA format.)* N/A
7. Entrance Skills: *Before entering the course students must be able:*

8. Course Content and Scope:

Lecture:

- A. PROGRAM ORIENTATION & INTRODUCTION TO The Natural Resources and Agricultural Sciences
  1. Professional Opportunities
  2. Education Requirements for a Professional Degree
  3. COD Natural Resources and Agricultural Science Program
  4. Transfer Requirements for Upper-Division College Admission
  5. Required Occupational Skills for Job Placement
  6. Difference between Occupational Degree, Transfer Degree and Certificate
- B. Wildlife and Natural Areas MANAGEMENT
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
- C. Research in Conservation biology
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement

5. Difference between Occupational Degree, Transfer Degree and Certificate
- D. Environmental Education
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
- E. Zoological Gardens Management
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
- F. Water Quality Research and Management
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
- G. Pest management and vector control research
  1. Professional Career Opportunities
  2. Educational Requirements
- H. Agricultural Practices and Crop Development Research
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
- I. Horticulture and Landscape Design
  1. Professional Career Opportunities
  2. Educational Requirements
  3. Transfer Requirements for Upper-Division College Admission
  4. Required Occupational Skills for Job Placement
  5. Difference between Occupational Degree, Transfer Degree and Certificate
  6. Introduction to COD's Horticulture program
- J. Various field trips to appropriate work sites, including:
  1. National Wildlife Refuge
  2. Coachella Valley Preserve
  3. Deep Canyon Desert Research Station
  4. The Living Desert
  5. The Wildlands Conservancy – Whitewater Canyon Preserve
  6. USDA - Natural Resources Conservation Service
  7. Native Plant Nursery
  8. Green Energy facilities (wind - solar)
  9. Bureau of Land Management
  10. Joshua Tree National Park
  11. California Dept. of Fish and Game
  12. County Pest Management and Vector Control
  13. UCR Entomology Museum/Department

Lab: (if the "Lab Hours" is greater than zero this is required)

9. Course Student Learning Outcomes:

1.

Describe degree majors, course requirements, and colleges and universities that will facilitate a career in the natural Resources and Agricultural Sciences and create a two-year learning road map to include courses required for a degree.

2.

Demonstrate an understanding of the interrelationships between the various Natural Resources and Agricultural Sciences

professions.

3.

Evaluate and identify career choices in the greater Coachella Valley region based on comparing and contrasting the experience of various site visits to professional offices in these fields.

10. Course Objectives: *Upon completion of this course, students will be able to:*

- a. Surveyed the range of professions associated with Natural Resource and Agricultural Sciences.
- b. Knowledge of career opportunities in the Natural Resources and Agricultural Science available in the greater Coachella Valley region.
- c. Knowledge of degree majors, course requirements, and colleges and universities that will facilitate a career in the Natural Resources and Agricultural Sciences
- d. An understanding of the interrelationships between the various Natural Resources and Agricultural Sciences professions.
- e. Created a Two-Year Learning Road Map; to include: courses required for a degree; options for four-year universities; associated costs; and study time requirements.
- f. Evaluated career choice(s) based on comparing and contrasting the experience of various site visits to professional offices in these fields; and individual advising with Program Advisor.

11. Methods of Instruction: *(Integration: Elements should validate parallel course outline elements)*

- a. Discussion
- b. Distance Education
- c. Individualized Study
- d. Journal
- e. Lecture
- f. Observation
- g. Participation
- h. Supplemental/External Activity

Other Methods:

a. Guest Lecturers: Professional wildlife managers, university biologists and research professionals, zoo managers, agricultural researchers, water management professionals, vector control professionals, horticulturalists b. Site Visits (Field Trips) c. Review and Interpretation of Assessment Results by Counseling Staff d. Lecture: Films, Slides, Overhead Projections e. Interactive Classroom Discussions f. Tour Transfer Center: Intro to EUREKA System and other services

12. Assignments: *(List samples of specific activities/assignments students are expected to complete both in and outside of class.)*

In Class Hours: 54.00

Outside Class Hours: 108.00

a. In-class Assignments

1. Quizzes
2. Discussion

b. Out-of-class Assignments

1. Written Evaluation of Guest Lecturer
2. Creation of "learning roadmap"
3. Written Evaluation of Site Visits
4. Meet with Advisor to develop short-term educational goal

13. Methods of Evaluating Student Progress: *The student will demonstrate proficiency by:*

- College level or pre-collegiate essays
- Written homework
- Guided/unguided journals

- Portfolios
- Reading reports
- Field/physical activity observations
- Presentations/student demonstration observations
- True/false/multiple choice examinations
- Mid-term and final evaluations
- Student participation/contribution

14. Methods of Evaluating: Additional Assessment Information:

a. Development of Two-Year Learning Road Map Project

15. Need/Purpose/Rationale -- *All courses must meet one or more CCC missions.*

PO-GE C1-Natural Sciences

Apply the scientific process and its use and limitations in the solution of problems.

Make critical judgments about the validity of scientific evidence and the applicability of scientific theories.

IO - Scientific Inquiry

Collect and analyze data. Skills of data collection include an understanding of the notion of hypothesis testing and specific methods of inquiry such as experimentation and systematic observation.

Analyze quantitative and qualitative information to make decisions, judgments, and pose questions.

Recognize the utility of the scientific method and its application to real life situations and natural phenomena.

16. Comparable Transfer Course

University System	Campus	Course Number	Course Title	Catalog Year
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17. Special Materials and/or Equipment Required of Students:

3-in., 3-ring Notebook with an Organizational System
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18. Materials Fees:  Required Material?

Material or Item	Cost Per Unit	Total Cost
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19. Provide Reasons for the Substantial Modifications or New Course:

English 70 change

20. a. Cross-Listed Course (*Enter Course Code*): *N/A*  
 b. Replacement Course (*Enter original Course Code*): *N/A*

21. Grading Method (*choose one*): Letter Grade Only

22. MIS Course Data Elements

- a. Course Control Number [CB00]: CCC000558968
- b. T.O.P. Code [CB03]: 11500.00 - Natural Resources
- c. Credit Status [CB04]: D - Credit - Degree Applicable
- d. Course Transfer Status [CB05]: B = Transfer CSU
- e. Basic Skills Status [CB08]: 2N = Not basic skills course
- f. Vocational Status [CB09]: Possibly Occupational
- g. Course Classification [CB11]: Y - Credit Course
- h. Special Class Status [CB13]: N - Not Special
- i. Course CAN Code [CB14]: *N/A*
- j. Course Prior to College Level [CB21]: Y = Not Applicable
- k. Course Noncredit Category [CB22]: Y - Not Applicable

# NR 059-Careers In Natural Res & Agri Sciences

l. Funding Agency Category [CB23]: Y = Not Applicable

m. Program Status [CB24]: 1 = Program Applicable

Name of Approved Program (if program-applicable): DESERT ECOLOGIST, TURFGRASS  
MANAGEMENT, TURFGRASS MANAGEMENT

*Attach listings of Degree and/or Certificate Programs showing this course as a required or a restricted elective.)*

23. Enrollment - Estimate Enrollment

First Year: 30

Third Year: 30

24. Resources - Faculty - Discipline and Other Qualifications:

a. Sufficient Faculty Resources: Yes

b. If No, list number of FTE needed to offer this course: N/A

25. Additional Equipment and/or Supplies Needed and Source of Funding.

N/A

26. Additional Construction or Modification of Existing Classroom Space Needed. (Explain:)

N/A

27. FOR NEW OR SUBSTANTIALLY MODIFIED COURSES

Library and/or Learning Resources Present in the Collection are Sufficient to Meet the Need of the Students Enrolled in the Course: Yes

28. Originator Kurt Leuschner Origination Date 10/23/17