**LEARNING CONTRACT**

**Ecology, Evolution, & Natural Resources: Experience-Based Education**

Upload completed forms to the Assignment on the EENR Majors Canvas site

**Student name:** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** **RUID:** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**CREDIT**

**Course:** Practical Experience in EENR 11:216:440 **OR** Research Experience in EENR 11:216:484 (highlight or circle one)

**Semester:** **\_\_\_\_\_\_\_\_\_\_\_\_\_** **Year:** **\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Number of credits:** **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Credits by arrangement with advisor, 1-3 credits possible; 1 credit = ~42 hours of unpaid work/semester. For paid internships outside of Rutgers, it is recommended students go through the SPIN program (https://sebsspin.rutgers.edu).*

**FACULTY ADVISOR**

**Rutgers Faculty Advisor**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

External Supervisor/Advisor (if applicable): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PROGRAM LEARNING GOALS [Note: These are a subset of the Departmental Learning Goals for the EENR Major (https://deenr.rutgers.edu/undergrad/learning\_goals.html)]**

* **Goal 4:** Effectively utilize software, hardware, field and laboratory techniques commonly used in the study of ecology, evolution, and natural resource management.
  + Gain experience in Ecology, Evolution, and Natural Resources work environments, including research laboratories, computer labs, field work, and scientific collections.
  + Master new techniques, methods, software applications, and other skills important for careers in this field.
* **Goal 5:** Use quantitative methods to analyze and understand ecological systems, including interpretation of numeric and graphical data.
  + Learn data and project management skills and data collection methodologies.
* **Goal 6:** Communicate effectively orally and through written text and graphics.
  + Increase skills in science communication, both written and oral.

For students enrolled in **11:216:484**, students are expected to complete an independent study project, which should include elements of all three goals above.

* Perform an independent research project, including writing a project proposal, manage a project, analyze data, and write a project report

**PROJECT SPECIFIC LEARNING GOALS**

*The student and faculty member (in consultation with the external supervisor, where applicable) are to identify* ***three*** *project-specific learning goals for their experience under the categories of Learning goals above. The student and faculty member may also add a unique learning goal. The method of evaluation of the learning goals must also be included. Please follow the format given in the example below:*

*Example: Project Learning goal #1:* ***EENR Goal 4:*** *Effectively utilize molecular phylogenetics lab techniques, including DNA extraction, PCR, DNA sequencing*

*Evaluation method of goal #1: Proficiency will be evaluated by the lab supervisor, Jane Doe. Student will be given a score of 1 to 5 based on proficiency with each technique (5 = excellent proficiency; <3 = not proficient).*

*\**

**Project Learning goal #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluation method of goal #1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Learning goal #2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluation method of goal #2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Learning goal #3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluation method of goal #3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Extra learning goal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluation of extra learning goal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**ASSESSMENT PLAN**

Give a brief description of the final product that is expected from the student For students taking 2 or more credits, it can either be a written report (3-10 pages depending on number of credits registered), or a poster or oral presentation at a meeting.

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**SIGNATURES**

The student and advisor approve of this Learning Contract for Exp.-based Education requirement.

**Student Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Faculty Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Supervisor signature** (if applicable):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Guidelines to Practical/Research Experience in EENR**

1. The Learning Contract must be completed and signed by the student and faculty advisor and uploaded onto Canvas (https://rutgers.instructure.com/courses/158279) under the Pract/Research Learning Contract Assignment in EENR every semester.
2. Each contract must have 3 specific Project Learning Goals that address a minimum of two EENR Program Learning Goals, i.e. learn to ID plants, learn to maintain and feed lizards, etc. More goals can be added if desired.
3. Both student and faculty have to agree on number of credits registered, the rule is: 1 credit = 3 hours/week x 14 weeks in semester = 42 hours mimimum
4. Faculty or supervisor (post-doc or grad student) must track student hours throughout the semester.
5. Registering for 3 credits in Practical Exp. EENR (440) will require that the student and faculty must agree on a final product:

Examples:

3 credits = 5 - 7 page report

Or Poster/Oral presentation at a meeting/conference

1. Registering for 2 or 3 credits in Research Exp. EENR (484) will require that the student and faculty must agree on a final product:

Examples:

2 credits = 3 - 5 page report with at least 3 references

3 credits = 5 - 8 page report with at least 7 references

Or Poster/Oral presentation at a meeting/conference

1. Registering for 1 credit Pract/Research Experience will only require a satisfactory completion and understanding of Learning Goals during the semester, and completion of a minimum of 42 hours.
2. Grading: The student will be graded on their participation and performance of work, and attainment of their Learning Goals (A, B+, B, C+, C, D and F).
3. As a participant in Rutgers-sponsored lab or field research, the student may be required to complete the appropriate lab safety, animal handling, etc. course. The Rutgers faculty supervisor will ensure that students receive any required training prior to work on the project.

**Assessment Rubric**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Outstanding (5)** | **Good**  **(4)** | **Satisfactory**  **(3)** | **Unsatisfactory**  **(<3)** |
| Fulfill time requirement |  |  |  |  |
| Learning Goal #1 |  |  |  |  |
| Learning Goal #2 |  |  |  |  |
| Learning Goal #3 |  |  |  |  |
| Extra Learning Goal (optional) |  |  |  |  |
| Report/Presentation |  |  |  |  |
| Grade |  | | | |

\*Report Rubric (if applicable):

- Clear, easy to follow organization with Intro, body, and conclusion.

- Appropriate word choices, free of grammar and spelling mistakes.

- Accurately and effectively employs relevant discipline-specific format and terminology.

- Provides sophisticated evaluation and critical assessment of evidence, and arguments drawn from multiple sources.

- Includes a fairly comprehensive range of relevant sources, using accurate and appropriate conventions for attribution and citation.

\*reports should be submitted directly to the faculty member (or graduate student/post-doc supervisor) or for internships outside of Rutgers, to the Undergraduate Program Director by arrangement (kimberly.russell@rutgers.edu)