The following graduate programs offer dual-title degrees in TREES:

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<td>Carter Hunt</td>
<td>TREES</td>
<td>University Park</td>
<td>Dual-Title</td>
<td>View (<a href="https://secure.gradsch.psu.edu/gpms/?searchType=fac&amp;prog=TREES">https://secure.gradsch.psu.edu/gpms/?searchType=fac&amp;prog=TREES</a>)</td>
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Students enrolling the dual-title intercollege program in TREES through participating majors may earn a degree with the dual-title at both the Ph.D. and M.S./M.A. levels, i.e., Ph.D. in (graduate program name) and Transdisciplinary Research on Environment and Society, or M.S./M.A. in (graduate program name) and Human Dimensions of Natural Resources and the Environment.

The following graduate programs offer dual-title degrees in TREES:

- Anthropology
- Architecture
- Energy and Mineral Engineering
- Forest Resources
- Geography
- Landscape Architecture
- Recreation, Park and Tourism Management
- Rural Sociology

The TREES dual-title intercollege degree program is administered by the TREES Program Committee. The committee maintains program definition, identifies appropriate faculty and courses, and recommends policies and procedures for its operation. This dual-title intercollege degree program is offered through graduate major programs in four colleges: Agricultural Sciences, Earth and Mineral Sciences, Health and Human Development, and the Liberal Arts. TREES enables students to attain and be identified with the content, techniques, applications, methods, and policy implications of an interdisciplinary focus on transdisciplinary research on environment and society, while maintaining a close association with areas of application.

Through participation in TREES, student’s programs of study will emphasize integrated, multidisciplinary approaches designed for improving their understanding about and management of natural resources. Areas of study will reflect the faculty adviser’s home department and disciplinary thrust.

**Admission Requirements**

To pursue a dual-title intercollege degree under this program, the student must first apply and be admitted through one of the existing graduate programs that offers the dual-title degree in TREES:

- Anthropology
- Architecture
- Energy and Mineral Engineering
- Forest Resources

Once enrolled in their home degree program, the student can apply to the Admissions Committee of TREES. The TREES admissions committee reviews applications and recommends students for admission to the dual-title degree program to The Graduate School. TREES admission requirements include:

1. a minimum baccalaureate Jr/Sr grade point average of 3.0 out of a 4.0 scale;
2. a statement of professional goals, natural resource management philosophy, and reasons for applying to the program; and
3. a letter of support from the student's doctoral advisor acknowledging the TREES dual title program's requirements and their individual and departmental support of the student's participation in the program.

Doctoral students must be admitted into the dual-title degree program in TREES no later than the end of the fourth semester (not counting summer semesters) of entry into the graduate major program.

**Degree Requirements**

To qualify for the TREES dual-title intercollege degree, students must satisfy the requirements of the major degree program in which they are enrolled, including the communication/foreign language requirements, if any. In addition, they must satisfy the minimum requirements in the TREES dual-title intercollege program described here. Final course selection, including which courses will satisfy both the graduate major program and dual-title program requirements, is determined by the students with approval by their dual-title program advisers and their major program advisers. All dual-title intercollege degree candidates should enroll in HDNRE 590 in their first semester.

A student in TREES must complete 15 credits of TREES course work beyond the bachelor's degree in addition to curricular requirements for the master’s or doctoral degree in the student’s primary program. These courses are required for both the M.S./M.A. and Ph.D. degrees.

**Code** | **Title** | **Credits**
--- | --- | ---
HDNRE 590 | Human Dimensions in Natural Resources and the Environment Colloquium | 1
HDNRE 574 | Integrated Perspectives in Human Dimensions of Natural Resources and the Environment | 3
HDNRE 575 | Ethical Issues in Human Dimensions of Natural Resources and the Environment | 3
Two courses from at least two pools that provide the most breadth for the student as determined by the program chair. A list of courses in each pool is maintained by the graduate program office.
HDNRE 596 | Individual Studies (at least 1 credit) | 1
Graduate-level Internship (at least 1 credit at the 495/595/895 level); internship credit can reside in student’s home department or related program, but requires approval by the program chair.

**Total Credits**

15

**Master's Degrees**

All courses, including which courses will satisfy both the graduate major program and dual-title program requirements, must be approved by the
The culminating experience (e.g., thesis or scholarly paper or capstone course) must incorporate a TREES interest together with the primary field of study.

Doctoral Degrees
All courses, including which courses will satisfy both the graduate major program and dual-title program requirements, must be approved by the student's dissertation adviser(s) and/or committee.

Doctoral students must be admitted into the dual-title graduate degree program no later than the end of the fourth semester (not counting summer semesters) of entry into the graduate major program. In consultation with the TREES dual-title program, the graduate major program will determine the timing and format of the Qualifying Examination for dual-title TREES students from the three available options: a single qualifying examination that covers both the major and the dual-title, separate qualifying examinations for the major field and the dual-title field, or a qualifying examination in just the major field. This will be stated in the graduate major program's Graduate Bulletin listing for the dual-title adoption.

In accordance with Graduate Council policy (http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-602-phd-committee-formation/), the Ph.D. committee must include at least one Graduate Faculty member from TREES. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the Ph.D. committee is not also a member of the Graduate Faculty in TREES, the member of the committee representing TREES must be appointed as co-chair. The TREES representative on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination.

All Ph.D. students will be required to complete, present, and defend a dissertation that incorporates a topic related to both their graduate major program and TREES. Candidates for the dual-title Ph.D. degree in TREES will be required to pass a final oral examination (the dissertation defense) covering their graduate major program field and TREES. To earn the Ph.D. degree, doctoral students must also write a dissertation that is accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.

Minor
A graduate minor is available in any approved graduate major or dual-title program. The default requirements for a graduate minor are stated in Graduate Council policies listed under GCAC-600 Research Degree Policies (http://gradschool.psu.edu/graduate-education-policies/) and GCAC-700 Professional Degree Policies (http://gradschool.psu.edu/graduate-education-policies/), depending on the type of degree the student is pursuing:

- GCAC-611 Minor - Research Doctorate (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-611-minor-research-doctorate/)
- GCAC-641 Minor - Research Master's (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-641-minor-research-masters/)
- GCAC-709 Minor - Professional Doctorate (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-709-professional-doctoral-minor/)
- GCAC-741 Minor - Professional Master's (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-700/gcac-741-masters-minor-professional/)

Student Aid
Graduate assistantships available to students in this program and other forms of student aid are described in the Tuition & Funding (http://gradschool.psu.edu/graduate-funding/) section of The Graduate School's website. Students on graduate assistantships must adhere to the course load limits (http://gradschool.psu.edu/graduate-education-policies/gsad/gsad-900/gsad-901-graduate-assistants/) set by The Graduate School.

Courses
Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

Learning Outcomes
1. Frame a problem from multiple social, temporal, and cultural perspectives and evaluate alternative solutions (design-thinking)
2. Analyze the interactions, boundaries, components, and identities of social-ecological systems and how they might change through time and across space (systems thinking)
3. Effectively communicate and engage with diverse audiences (communication)
4. Facilitate collective action through development of intentional group agency (team facilitation)
5. Recognize the importance of different value systems in multiple societal and cultural contexts (ethical dimensions)
6. Identify creative solutions by taking risks and integrating knowledge (innovation)
7. Demonstrate proficiency in one discipline and emergent skills in another (interdisciplinary proficiency)