

DSN 400

Think through Make: An Interdisciplinary Approach

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Office hours: M/W 11a – 12p, T/Tr 4p – 5p

Course Description.

This course is an interdisciplinary design+build studio that focuses on four areas of collaboration; investigative research; pre-design and prototype collaboration, construction techniques, and community outreach. In this class, students gain an understanding of the issues and impact of sustainable practices in the residential environment and weigh design decisions within the parameters of ecological, socio-economic, and cultural contexts. Students address a holistic design problem (the construction of a tiny house) through inter-disciplinary collaborations and consensus building, leadership and teamwork. Through a series of exercises students assess the strengths and weaknesses of their collaborative design work and revise and develop reiterations as necessary. Community outreach involves educating others about the economic and ecologic advantages of small-scale living.

Learning Objectives.

Having successfully completed this course, students will be able to:

1. Solve problems in the context of contemporary local, national, or global issues through:
 - a. developing team work structures and protocols
 - b. applying the principles of sustainable design as they pertain to small scale living
2. Apply ethical reasoning to contemporary local, national or global issues through:
 - a. investigating sustainable materials
 - b. pre-design processes
 - c. ethical considerations of sustainable material selection related to: availability within the region, renewable resources, and impact on the environment
3. Critically analyze different viewpoints of theories about a contemporary issue using reliable sources through:
 - a.) investigative research
 - b.) teamwork structures and protocols
 - c.) reflective discussion about dissemination of knowledge to a larger audience
 - d.) community outreach and education
 - e.) active listening skills
 - f.) competency in self-evaluation and reflection of design work
4. Demonstrate skill in communicating ideas in written, oral and multi-media formats through:
 - a.) An e-portfolio
 - b.) Presentations

Assessment Measures.

Assignments will include: a research portfolio, prototyping exercises and a reflective journal. Teamwork assessment will occur through peer evaluations and community partner engagement protocols. The research portfolio and prototyping exercise will comprise an integral part of the course evaluation.

Final grades will be based on the four following areas:

	Research Project	25%
	ePortfolio	25%
Contribution to Construction Process and Teamwork/Collaboration Evaluation		25%
	Reflection Questions and Essays	<u>25%</u>
	Total Points	100

Course Format.

This course will meet as an active design build studio; Mondays and Wednesdays from 12:30pm – 3:30 pm. Students will be engaged in the process of construction and research regarding sustainable construction practices and methodologies. We will work with community partners and industry experts throughout the project. They will frequently give input and help through the process, and students are expected to be active in learning from, and working with, these partners. Class time will be used for construction tutorials, group discussion, tiny house construction, and student documentation of the process.

We will meet both in the classroom and outside at the build site. On days when inclement weather is possible and we are scheduled to be outside, Mr. Bicak will do his best to email you one to two hours before the start of class to let you know if we will have to be inside on any given day.

Course Evaluation.

The primary means for grading contributions to the overall design/prototyping/construction of the project will be students' contribution to an ePortfolio. Each student in the course will be responsible for documenting these various phases of the project, and documenting reflections on the interdisciplinary process. Active involvement in the design, prototyping, and construction processes will be crucial for success in this course. Team members and the course instructor will evaluate the teamwork components of the course. The instructor reserves the right to contact community members and industry professionals for input regarding the students communication with them. Contributions to the construction and prototyping processes will be evaluated at the end of the semester. Both of these grades will be based upon (1) the instructor's expectations relative to the stated objectives of the course, based upon the instructor's experience and expertise; (2) strength and articulation in communicating (both verbally and through the process) the concepts of sustainability (3) growth of student's technical competency gained throughout the process.

Final course grades will be awarded on the basis of the total points accumulated throughout the semester according to the following scale:

A	90 - 100	Superior work
B	89 – 80	Above average work
C	79 – 70	Average work
D	69 – 60	Below average work
F	0 – 59	Failing work

Attendance.

Attendance will be taken at the beginning of each class. If you arrive after attendance is taken, you will be marked as 'late'. (2) 'late' will equal (1) absence. Each student will receive up to (3) absences. Each additional absence will count as 3% against your overall grade for the course. For example, if your overall course grade is a 82% and you have (4) absences [3 will count as "free", 1 will count as -3%], your course grade becomes a 79%. Extenuating circumstances will be given consideration on a case-by-case basis. So much of the work we do toward construction is done during class time, it is extremely important you are present every day!

Radford University Policies.

The honor code will be strictly enforced in this class. By accepting admission to Radford University, each student makes a commitment to understand, support and abide by the University Honor Code without compromise or exception. Refer to your Student Handbook for details. Plagiarizing someone else's ideas or ideas from an outside resource will be considered a violation of the honor code. You are expected to create your own solutions for the design projects assigned in this class unless otherwise specifically instructed.

Disability Resource Office.

If you are seeking academic accommodations under the Americans with Disabilities Act at Radford University, you are required to register with the Disability Resource Office (DRO). To receive academic accommodations for this class, please submit your documentation to the DRO in the lower level of Tyler Hall Suites 54-69, by fax to 540-831-6525, by email to dro@radford.edu. After submitting documentation to our office, you will set up an interview with a Disability Services Specialist to discuss accommodations. You will be notified via email once your accommodation package is complete and ready to be picked up. Once you have picked up your accommodation package, you will need to meet with each course professor during their office hours to review and discuss your package. For more information and/or for documentation guidelines, visit www.radford.edu/dro or call 540-831-6350.

Department Policies and Course Practices.

The Department of Design at Radford University works to create a culture of respect and collegiality among faculty, students and staff. We count on each other to keep appointments, to be on time for classes to be respectful in listening to diverse perspectives and to be clear and sensitive in communications. When students, faculty, or staff cannot keep their commitments or need accommodation, a timely notification is expected, and in many cases, documentation. The Radford Catalogue is an important resource to guide you. The Department's mission statement provides further insight into our values as an academic and professional setting. Fundamental to the University is the respect for intellectual work: this information is described in the Academic Policies. Students are encouraged to attend seminars to help learn in a University context.

Texts

There are no required texts for this course, but supplemental materials will be found on D2L.

Finals Week

We will meet during the final time for this course, according to the Radford University exam schedule.