

ESSE: Essential Studies Synthesis Experience



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ESSE: Essential Studies Synthesis Experience



- **Essential studies program**
 - New general education program that support student's development in 6 ESLOs.
 - Culmination of 3 year long university wide review process.
 - Endorsed by Faculty Senate and Oregon Tech's Executive Staff (April 2016)
- **ESSE**
 - Junior level, three-credit, project-based course that combine 6 ESLOs.



So, how do you define, design, and implement junior level, cross-disciplinary, project-based class at Oregon Tech?

Answer: Go to Massachusetts





WPI

2016 Institute Project-Based Learning

Chemist
Librarian
Statistician
Marketer
Electrical Engineer
Accountant



How the ESSE works

FACULTY



Dr. David
Thaemert
Civil Engineering



Dr. Sophie
Nathenson
Gen Ed

- At least two faculty
- Two different academic departments
- One from General Education Department

STUDENTS

- Junior-standing students select the ESSE
- Students from two different departments
- Can't be prescribed by major



Dental
Hygiene



Mechanical
Engineering



Geomatics



Health
Informatics



Marketing

What happens within an ESSE course?

1

Students start with researching, reading and discussing background. The process is guided by faculty.

2

Students break into teams, narrowing in on a particular approach to tackle their ESSE problem.

3

Most of the class time is spent working in teams, with regular check-ins and meetings with faculty.

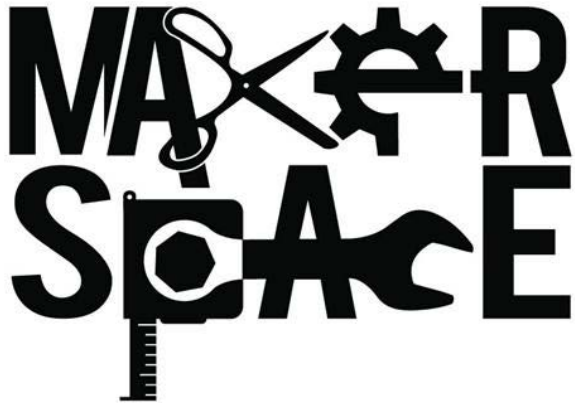
4

At the end of the term, students prepare a written report and an oral presentation, outlining proposed solutions and/or recommendations. The final project will demonstrate the expression of the six ESLOs.

A couple sample ESSEs



Annual competition that is hosted by the Biomimicry Institute where interdisciplinary teams address critical global issues with nature-inspired solutions. This year's theme is global climate change. The challenge is to create a nature-inspired innovation that combats climate change by either helping communities impacted by climate change and/or decreasing or reversing the effects of climate change itself.



Students research for what makes for a successful makerspace and develop a makerspace plan for Oregon Tech. Students examine and address issues related to makerspaces including governance, funding, tools, safety, marketing, organization, operation, access, layout, and curricula integration.

