# 2016-2017 General Education Advisory Council Report

Prepared by

Sandra Bailey, Director of Academic Excellence
and
Seth Anthony, Chair of the General Education Advisory Council

*June 16, 2017*

# Table of Contents

Appendices

# General Education Advisory Council Report 2016-2017

## Introduction

This report outlines the General Education Advisory Council (GEAC) activities and accomplishments during the 2016-2017 academic year and is based on the recommendations set in the spring 2016 Report of the General Education Review Task Force. This document was prepared by the Director of Academic Excellence, Sandra Bailey, and by the Chair of GEAC, Seth Anthony, and it was reviewed by the General Education Advisory Council, submitted to the Provost, and posted on the Oregon Tech Essential Studies website.

## Leadership of the General Education Program

The General Education Advisory Council, the Chair of GEAC, and the Director of Academic Excellence have responsibility and authority to guide general education and the implementation of the new Essential Studies program. Current membership for GEAC is included in Appendix A. The provost oversees the work of GEAC and ensures adequate resources to support the general education program.

The purpose and ongoing charge of the General Education Advisory Council is to define the structure of the Essential Studies Program and oversee its operations. While reporting to and subject to oversight by the provost, the General Education Advisory Council carries out its regular operations with a high degree of autonomy. Responsibilities of GEAC include: maintaining general education requirements and course lists, planning for sufficient general education offerings in all locations and modes of delivery, assessing the general education program and making recommendations for improvements, providing input and support to various groups on matters relating to general education, and providing recommendations to the provost on matters that affect the general education program. Additional information on GEAC can be found in the Mission Statement and Charter included in Appendix B.

The Chair of GEAC, appointed by the provost, provides broad leadership for the general education program, chairs GEAC meetings, and serves as a member of the Academic Excellence Coordinating Committee. The chair and the Director of Academic Excellence work closely together to ensure the viability of the general education program.

The Director of Academic Excellence is responsible for coordination of activities required for the general education program. The director works closely with GEAC and general education departments to administer the general education program. The director also serves as a liaison between GEAC and other campus bodies engaged in work relating to general education.

**Communication of General Education Matters**
Systematic and broad communication on general education matters is accomplished through the following avenues:

- The director periodically updates the Provost on assessment matters in general.
- The chair provides regular updates to the Academic Excellence Coordinating Committee.
- The chair and director write the annual GEAC report (this report) and ensure that relevant information is shared with appropriate campus bodies.
- Chairs of general education departments meet annually with ESLO Faculty Learning Communities to discuss matters relating to transfer.
- The Office of Academic Excellence maintains the general education website and coordinates messaging to current and potential students through relevant campus bodies.

**Coordination with Other Campus Bodies**
The director and chair serve on the Academic Excellence Coordinating Committee. This committee coordinates academic continuous improvement efforts between the General Education Advisory Council, the Assessment Commission, and the Commission on College Teaching as defined by the six-year cycle (Appendix C).

The director serves as a liaison with the Advising Coordinator Commission, the Curriculum Planning Commission, Academic Council, the Registrar, Oregon Tech Online, Admissions, and Student Affairs in all matters associated with general education.

**Resources in Support of General Education**
The director provides funds from the Office of Academic Excellence budget, as well as staff resources to support the work of GEAC including annual professional development for the chair. The provost ensures adequate funding for a sustainable general education program.

**Mission, Rationale and Outcomes of the General Education Program**
The mission of the Essential Studies Program – Oregon Tech's general education requirements – is to ensure that all Oregon Tech bachelor's degree graduates are provided with experiences that lead to their success at achieving Oregon Tech's university-wide Essential Student Learning Outcomes (ESLOs), in support of our students' success and Oregon Tech's fulfillment of its institutional mission.

Given Oregon Tech's

- applied mission,
- diverse student body composed of traditional and non-traditional, first-year and transfer, first-generation, low-income and legacy students,
- history of rigorous professional preparation,
- established focus on communication,

- teaching-focused faculty,
- innovative programs and general electives,
- established culture of assessment,
- excellent placement rates for graduates,

and

- the rapidly changing nature of technology and the world, and
- the fundamental purpose of a university to educate students both broadly and deeply,

Oregon Tech will ensure that students are equipped not only with the technical ability to influence and succeed in the world through a particular program of study, but that they will apply their skills and knowledge eloquently, responsibly, collaboratively, objectively, considerately, and in broad contexts beyond the major program.

Oregon Tech will provide students with ways to engage in lifelong and professional learning by developing their abilities to effectively

- communicate,
- conduct inquiry and analysis in diverse fields
- practice ethical decision making,
- work with others,
- reason quantitatively, and
- function individually and within diverse global and cultural systems.

In support of these outcomes, Oregon Tech will offer and maintain an Essential Studies program that (as described in the spring 2016 General Education Review Trask Force final report):

- is intentional and scaffolded,
- is developmental with Essential Student Learning Outcomes (ESLOs) supported and demonstrated at the foundation, practicing, synthesis, and capstone levels,
- prepares active and educated citizens with a sense of personal and civic responsibility as well as a professional career,
- provides a broad education in areas outside of the major program allowing for personal growth, broad disciplinary learning, and exploration,
- allows students the freedom to choose from a variety of elective courses,
- includes upper-division coursework that may be required even for transfer students and is intentionally tied to lower division or transfer work,
- provides opportunities for interdisciplinary courses and co-teaching,
- incorporates high-impact practices supported by strong faculty professional development structures,
- uses a curricular design philosophy that ensures that all cognitive levels of Bloom's taxonomy are addressed at each level of achievement (foundational, practice, capstone) but

that the difference between these outcome levels is the amount of scaffolding and instructor support,

- is integrated with major programs with necessary communication and staff supported by the administration and faculty policy, and
- is reviewed and updated on a regular cycle, based on rigorous assessment data.

**Assessment of the General Education Program**

The assessment of the general education program is based on student achievement in each of the ESLO pathways. Criteria for the ESLOs and rubrics for assessment are included in Appendix D. GEAC provides input to the Assessment Executive Committee in the development of the ESLO assessment plans. The director reports ESLO assessment results as they pertain to general education requirements. GEAC provides analysis and recommendations for changes to general education requirements based on assessment findings. In the sixth year of the cycle GEAC reflects on the ESLO pathway and the effectiveness of the Essential Studies program in supporting student achievement. The ESLOs and the current assessment schedule are shown in Table 1. A description of the six steps appears in Appendix C.

Table 1. Essential Studies Assessment Schedule

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
| **Communication** | | Design | Collect | Analyze | Engage | Evaluate | Reflect |
| **Inquiry and Analysis** | | | Design | Collect | Analyze | Engage | Evaluate |
| **Ethical Reasoning** | | | | Design | Collect | Analyze | Engage |
| **Teamwork** | | | | | Design | Collect | Analyze |
| **Quantitative Literacy** | | | | | | Design | Collect |
| **Diverse Perspectives** | Design | Collect | Analyze | Engage | Evaluate | Reflect | Design |

**Summary of 2016-2017 General Education Assessment Activities**

**Design: Inquiry & Analysis**

In 2016-17 an assessment plan for Inquiry and Analysis was designed by the Assessment Commission with input for the Inquiry and Analysis committee. As the initial assessment of this new ESLO, the focus is on testing out the criteria – specifically, how well they can be applied within the context of the discipline. Student work and assessment data will be collected throughout the 2017-18 academic year from a sample of Foundation and Essential Practice courses as well as the Program-Integrated course identified by each program. Full details on the plan are included in Appendix E.

**Collect: Communciation**

The Office of Academic Excellence coordinated the collection of student work and associated assessment scores by faculty using the Communication rubric. Both oral and written communication was assessed and data is in the process of being collected from 126 sections program courses as well as 17 sections of WRI 121, 122, SPE 111, and WRI227. Aggregate reports will be shared with faculty at the 2017 Convocation for their analysis.

**Analyze: Diverse Perspectives**

The director wrote a report summarizing the results of the assessment of Diverse Perspectives based on analysis and input from the Diverse Perspectives committee. This assessment did not provide much data as this new ESLO has not yet been integrated into the curriculum, but it did provide a baseline for future assessments. The report includes plans to increase awareness of this new outcome with faculty and students in the "Engage the University" step of the cycle next year. The Diverse Perspectives assessment report including the improvement plan can be found on the Oregon Tech website at www.oit.edu/assessment. The report will be updated with assessment findings following the implementation of the improvements next year (year five, 2018-19, of the cycle).

**Summary of 2016-2017 GEAC Activities**

**Charter:**
Consistent with its new and more visible role in supporting a coherent general education program and coordinating activities with assessment, faculty development, ESLO committees, and the Office of Academic Excellence, GEAC drafted and approved a charter outlining its structure and responsibilities. This charter is included as Appendix B.

**Course Approval:**
During Fall 2016, GEAC activity centered around course approval and support of curriculum mapping. At Convocation, GEAC led a session on the state of implementation and on preliminary concepts for the ESSE (Essential Studies Synthesis Experience) for all faculty, and led a session for general education departments to support their submission of course for approval. (See Appendix F for these materials). GEAC members and representatives of ESLO committees also held a working session early in Fall term to support faculty preparing to submit courses for Essential studies. Faculty, primarily from general education departments, submitted over 70 courses for review by ESLO committees and GEAC.

Submissions continued to be received through Spring 2017, in response to GEAC and ESLO committee discussions about the state of various lists; in Spring 2017, GEAC reviewed and approved the lists of courses in Appendix G, noting additional work still to be done in some areas to fully build out course lists (particularly Communication, Inquiry & Analysis, and Diverse Perspectives).

**Curriculum Mapping:**
During Fall 2016, GEAC and the Office of Academic Excellence offered programs preliminary course lists and a process to use to smoothly map their curricula to Essential Studies. (See Appendix H for the presented outline of this process.)

This process was shared during meetings with department chairs and program directors during November 2016. Most programs submitted draft maps by the end of Fall 2016; submission from all programs were received by May 2017. Completed submissions are stored in the Essential Studies T:/ drive folder. A summary of programs' first-draft mappings of courses to Essential Studies requirements is included as Appendix I.

**Transfer Study:**
During Fall 2016, GEAC, in conjunction with the Essential Studies Transfer team, drafted and vetted a set of parameters for a study to gauge and quantify the impact of Essential Studies on transfer students and determine opportunities to mitigate or minimize any adverse impacts.

In short, 90 students representing three populations ("direct from HS" students with transfer credits, traditional transfer students with <90 credits, and traditional transfer students with 90+ credits) were sampled from. The parameters for this study are included as Appendix J.
Their transcripts were pulled and the chair of GEAC, in conjunction with the Office of Academic Excellence, evaluated all of these transcripts under both the old curriculum maps (supported by DegreeWorks information) and the new curriculum maps. The findings of this study were reported to the university community in June 2017, and are included as Appendix K.

As part of this process, ESLO committees and department chairs reviewed a substantial number of transfer courses for alignment with the new Essential Studies outcomes to determine where these courses might apply in the Essential Studies. Some of the policy implication of this work are discussed in the next section.

**Responses to Policy Questions:**
In response to reflections and questions offered by programs during curriculum mapping, questions raised and posed during evaluation of transfer courses, and the final results of the transfer impact study, GEAC considered a number of policy questions surrounding technical details of the Essential Studies model implementation. These questions surrounded topics including:

- course numbering and prerequisite requirements,
- processes for clearly recognizing transfer courses,
- policies concerning "grandfathering" of transfer students, and
- questions particularly pertaining to each outcome pathway.

GEAC's recommendations (along with identification of some additional areas to be explored further) are included as Appendix L.

**Interstate Passport:**
During the 2016-2017 academic year, a team of faculty (supported in part by a small grant from the Oregon Higher Education Coordinating Commission) explored the Interstate Passport, an outcomes-based tool designed to facilitate student transfer, particularly between community colleges and four-year institutions. A first draft of how Oregon Tech courses could fulfill Interstate Passport requirements and how Interstate Passport could be applied to the Essential Studies model was vetted by this group and by GEAC, and is included as Appendix M.

**Essential Studies Synthesis Experience:**
A subcommittee of faculty (Terri Torres, Kristy Weidman, Aaron Scher, Aja Bettencourt-McCarthy, Matt Schnackenberg, Anne Marie Reichmann) were identified to help better define and pilot the Essential Studies Synthesis Experience (ESSE) beginning in summer 2016. During the 2016-2017 academic year, this team:

- Sent six faculty to Worcester Polytechnic Institute's Institute on Project-Based Learning in Summer 2017.
- Developed a draft definition for the ESSE and presented to the university at Convocation; developed a pilot ESSE proposal and approval process. (These materials are included as Appendix N).
- Developed two ESSE proposals and piloted the Catalyze Klamath ESSE.
- Solicited and reviewed breakeven and enrollment data from the VP of Finance and Director of IR. Based on this input the group feels confident about the continued feasibility of the ESSE model.
- Based on the feedback from the pilot this year, the group projects a need to pilot at least two ESSEs per term beginning winter term 2018, followed by at least three per term in the 2018-19 academic year. This plan should meet the projected demand for the fall 2018 implementation of Essential Studies based on enrollment projections and the grandfathering clause for transfer students.
- Secured funds to send faculty to Stanford d.school workshop in July 2017, with the goal of incorporating design thinking into the ESSE model.
- Planned a meeting with Provost Kuleck in August 2017 to collaborate on a plan for the 2017-18 ESSE pilot, faculty workload model, and other logistics to support full implementation.
- Planned an Excellence in Teaching Conference one-hour session on design thinking to be run by the Stanford workshop team. This will be followed by a half-hour ESSE pilot session providing information for faculty who might be interested in learning more and potentially developing an ESSE.

**Conclusion and Plans for 2017-2018 Academic Year**

Substantial progress has been made during the 2016-2017 Academic Year to turn the model articulated by the General Education Review Task Force into a reality. Major tasks for the upcoming year surround further refinements and technical clarifications to model policies, implementation in curriculum maps, and communication of Essential Studies requirements and opportunities. Further detail and clarity will be added to this plan on collaboration with new leadership, particularly the new Provost:

Summer 2017:

- Thorough review by the Office of Academic Excellence of curriculum maps to check that programs faithfully and fully followed mapping discussions, have identified efficiencies, and that any constraints which might result in credit hour adds are clearly identified. Follow-up discussions on this with department chairs will occur over the summer, leading to conversations with program faculty in Fall 2017..
- Resource study, coordinated by the Office of Academic Excellence, in conjunction with Finance and SEM units, to determine current and needed capacity across sites and modes to teach courses required under the Essential Studies model.
- The Office of Academic Excellence works with CPC, ITS, and Registrar's Office to refine an electronic system for curriculum map submission that aligns with new catalog software and processes.
- Identification (with department chairs) of courses that need to be submitted to complete courses lists.
- ESSE Team works with Provost to develop a model for refinement and scale-up of ESSE.

Fall 2017:

- Review by GEAC of data obtained in Summer 2017 studies.
- Finalize course lists (review, supported by ESLO faculty learning communities, of courses submitted during summer and early fall 2017).
- Finalize remaining model policies (particularly outstanding matters identified in Appendix L).
- Revise and test policies and flowcharts for identifying transfer courses with general education department chair and the Registrar's Office.
- Begin transition of ESLO committees towards ESLO faculty learning communities. (Some will still have substantial "service" work to complete course lists; others will be primarily oriented towards supporting faculty professional development in their outcome area.)
- Finalization of process for approval of program-integrated practice courses. (One idea that has been discussed centers around using assignment-design workshops to identify, vet, and improve course assignments that qualify a course as meeting program-integrated practice requirements. Such workshops are a prime example of an opportunity for GEAC activity to

align with faculty development and course improvement and support assessment activiy as well).

- Programs begin submitting revised curriculum maps for CPC approval.
- Collaborate with Marketing in development of messaging/communication plan for internal and external parties. Consult with entities involved with communicating Essential Studies to others on materials and concerns: admissions, academic agreements, the ROCK, advising coordinators commission (including involvement with Winter term Advisor Training).

Winter 2018:

- Begin to run multiple pilot ESSEs.
- Finalize policies and practices for identification of transfer courses.
- Begin plan for revision of articulation agreements and development of materials for community college/transfer students, in coordination with a "community college campaign" and in collaboration with relevant university units (SEM, Academic Agreemetns, etc.) Update and review transfer websites.
- Conclude review of revised curriculum maps.

Spring 2018:

- Begin revision of transfer database, including stipending faculty or department chairs into summer to carry out needed reviews (Essential Studies not mandated for transfers until 3 years after hitting catalog.)
- Assist Registrar's Office in buildout of DegreeWorks curriculum maps.

## Appendix A

### General Education Advisory Council Membership
### 2016-2017

Membership of the committee is determined by the provost, based on recommendations of the Academic Excellence Coordinating Committee.

The committee is composed of

- representatives of each ESLO committee,
- the Director of Academic Excellence,
- a representative from the Faculty Senate Academic Standards Committee, and
- other members as needed to ensure adequate representation.

The committee shall include representation from all Oregon Tech colleges and primary campuses. The provost shall appoint one faculty member to serve as chair.

- Seth Anthony, Chair, Natural Sciences, HAS
- Matthew Sleep, Civil Engineering, ETM, Inquiry and Analysis ESLO
- Marilyn Dyrud, Communication, HAS
- Yanqing Gao, Manufacturing Engineering Technology, ETM
- Ben Bunting, Humanities and Social Sciences, HAS, Diverse Perspectives ESLO
- Kevin Brown, Communication, HAS, Teamwork ESLO
- Yasha Rohwer, Humanities and Social Sciences, HAS, Ethical Reasoning ESLO
- Randall Paul, Mathematics, HAS, Quantitative Literacy ESLO
- Terri Torres, Mathematics, HAS, Quantitative Literacy ESLO
- Hui-Yun Li, Natural Sciences, HAS, Inquiry and Analysis ESLO
- Matt Search, Communication, HAS, Communication ESLO
- Ryan Madden, Humanities and Social Sciences, HAS, Inquiry and Analysis ESLO
- Chris Caster, Medical Imaging Technology, HAS, Academic Standards
- Sandra Bailey, Director of Academic Excellence
- LeAnn Maupin, HAS Dean

## Appendix B

## Mission Statement and Charter for the General Education Advisory Council

(endorsed by GEAC 27 April 2017)

### Mission

The mission of the Essential Studies Program – Oregon Tech's general education requirements – is to ensure that all Oregon Tech bachelor's degree graduates are provided with experiences that lead to their success at achieving Oregon Tech's university-wide Essential Student Learning Outcomes (ESLOs), in support of our students' success and Oregon Tech's fulfillment of its institutional mission.

The purpose and ongoing charge of the General Education Advisory Council is to define the structure of the Essential Studies Program and oversee its operations, recommending changes as necessary, and reporting to the provost, who supports the work of the committee and ensures adequate resources are provided to sustain the Essential Studies Program.

### Charter

**Membership:**
Membership of the committee is determined by the provost, based on recommendations of the Academic Excellence Coordinating Committee.

The committee is composed of

- representatives of each ESLO committee,
- the Director of Academic Excellence,
- a representative from the Faculty Senate Academic Standards Committee, and
- other members as needed to ensure adequate representation.

The committee shall include representation from all Oregon Tech colleges and primary campuses. The provost shall appoint one faculty member to serve as chair.

**Terms of Service:**
For purposes of continuity, the chair of the General Education Advisory Council serves a three-year term and may be reappointed. Faculty members shall serve on the General Education Advisory Council for terms of three years and may be reappointed. A vice chair or co-chair may be appointed from the membership of GEAC to support continuity of leadership, particularly during the last year of a chair's term.

**Duties:**

***General Education Advisory Council (GEAC):*** While reporting to and subject to oversight by the provost, the General Education Advisory Council carries out its regular operations with a high degree of autonomy. The specific responsibilities of the General Education Advisory Council are to~~:~~

- Define the structure and requirements of the Essential Studies Program, making adjustments as necessary based on data collected in the assessment process and provided by other sources.
- Establish and maintain criteria for Essential Studies courses, including ESLO-specific criteria reviewed by ESLO committees.
- Manage lists of approved courses to meet Essential Studies requirements; provide formal approval of courses tagged for ESLO requirements, as reviewed by ESLO committees.
- In conjunction with the provost, plan for sufficient offerings to meet Essential Studies requirements in all locations and modes of delivery; make recommendations to administration regarding support of the Essential Studies Program.
- Write an annual program assessment report for the Essential Studies Program, reflecting assessment work done related to each ESLO at its respective phase of the continuous improvement cycle and making any recommendations for program improvements or changes
- In conjunction with the Assessment Commission, conduct a review of the effectiveness of the Essential Studies Program and its alignment with institutional goals, at least once every six years at the conclusion of each six-year ESLO assessment cycle, and as necessary in conjunction with institutional accreditation cycles.
- In conjunction with the Commission on College Teaching, annually review assessment results and make recommendations for faculty development activities.
- In conjunction with the Advising Commission and Director of Academic Excellence, ~~develop~~ provide support for development of advising materials for distribution to academic advisors.
- Provide training and support to department chairs on course criteria, including criteria for evaluation of transfer courses.
- Coordinate with the Assessment Commission, Commission on College Teaching, Oregon Tech Online, and Advising Commission on other matters of common interest.
- Work with ESLO Committees to implement the six-year continuous improvement cycle specifically regarding deliverables relating to the Essential Studies Program.
- Report and make specific recommendations to the provost concerning matters that affect the Essential Studies Program.

***ESLO Faculty Learning Communities:*** The faculty learning communities for each ESLO support the General Education Advisory Council by:

- Providing input on criteria to satisfy ESLOs at foundation, practice and capstone levels; criteria for course approval are drafted by ESLO committees and reviewed by-GEAC.
- As requested by GEAC, conducting initial review of courses submitted as satisfying Essential Studies criteria; or reviewing courses when outcomes or content change substantially.
- Working with department chairs to provide support and dialogue on evaluation of transfer equivalencies as requested.
- Recommending changes to maintain or improve the Essential Studies model and its governance or support structures.

**Meetings**

The General Education Advisory Council will meet regularly throughout the academic year as needed but no less than twice per academic term.

**Annual Reports**

The General Education Advisory Council will prepare the annual programmatic assessment report for the Essential Studies Program summarizing its activities for the most recent academic year. The report is submitted to the Assessment Commission Executive Committee, Academic Council, and the provost. This report will include the activities of each of the ESLO subcommittees in the current year, thereby reporting on each phase of the cycle.

**Amending the Charter**

The General Education Advisory Council may modify its charter in consultation with the provost. Proposals for changes to the charter shall be delivered to the chair, who negotiates suggested changes with the committee and appropriate administrative bodies. The chair forwards consensus requests to the provost for approval. In case of lack of consensus, the chair forwards competing proposals to the provost for consideration.

## Appendix C

## Six-Year Cycle of Improvement

**Year 1: Design Assessment**
The Assessment Executive Committee develops the Essential Student Learning Outcome (ESLO) assessment plan based on input from the Commission on College Teaching (CCT), the General Education Advisory Council (GEAC) and the appropriate ESLO Faculty Learning Community identifying research questions targeting various levels of proficiency. The following tasks should be considered in developing the plan: review ESLO criteria, review ESLO mapping to the curriculum, develop or review rubrics, identify the potential need for professional development prior to assessment, develop signature assignments, and review past assessment reports. The plan will include appropriate benchmarks for student attainment at various levels.

**Year 2: Collect Data**
The Office of Academic Excellence coordinates the collection of data and student work as defined in the assessment plan using the assessment management system. A summary of the data collection and the aggregate results will be provided to the Assessment Executive Committee, CCT, GEAC and the appropriate ESLO Faculty Learning Community for analysis in year three.

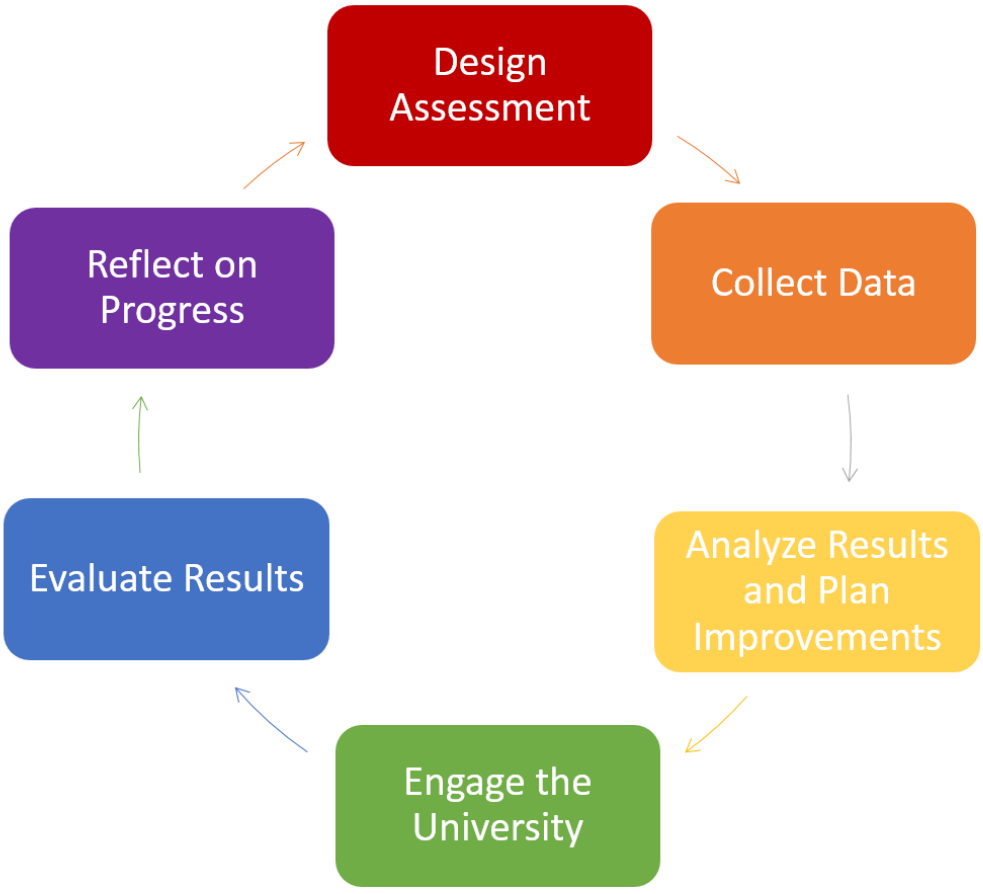
**Year 3: Analyze Results and Plan Improve**
In variety of settings (including Convocation) university faculty will analyze assessment results and identify potential changes for continuous improvement considering both curricular changes and professional development. Based on this input the Academic Excellence Coordinating Committee will create an action plan for improvement. Action items relating to curriculum including recommendations for curricular change, adjustments to ESLO criteria and/or rubrics, and changes to course approval processes will be submitted to GEAC for implementation with the appropriate bodies. CCT will design professional development to be implemented in year four based on the action plan for improvement considering ways to engage the university community including faculty, staff and students. CCT will engage the appropriate ESLO Faculty Learning Community to research best practices and opportunities to collaborate with other institutions. Assessment Exec will include the results, analysis and action plan in an initial report for the ESLO.

**Year 4: Engage the University**
The Commission on College Teaching and the ESLO Faculty Learning Community will launch the university-wide focus on outcome through professional development based on plan for improvement engaging faculty, staff and students. The Commission on College Teaching will provide a summary of professional development activities.

**Year 5: Evaluate Results**
The Office of Academic Excellence will collect data from targeted areas of weakness identified in the year-three report. The Academic Excellence Coordinating Committee will analyze the results and report areas of improvement and/or recommendations for additional actions to appropriate bodies. Assessment Exec will update the ESLO report with findings and further actions.

**Year 6: Reflect on Progress**
The Academic Excellence Coordinating Committee will reflect on improvements and consider innovative options for increasing success of all students. Activities could include: mapping outcome and criteria to state and national frameworks, comparing results to state and national benchmarks, looking at innovative teaching and assessment practices at other institutions, exploring possibilities for collaborations and involvement in state and national projects, seeking opportunities for grant funding to support plans for innovation. GEAC will reflect on the ESLO pathway and the effectiveness of the Essential Studies program in supporting student achievement. Assessment Exec will include the reflection (changes resulting from assessment) in the final ESLO report along with recommendations regarding the assessment plan for the next 6-year cycle.

**Continuous Improvement Cycle**



## Six-Year ESLO Cycle

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
| **Communication** | | **Design** | **Collect** | **Analyze** | **Engage** | **Evaluate** | **Reflect** |
| **Inquiry and Analysis** | | | **Design** | **Collect** | **Analyze** | **Engage** | **Evaluate** |
| **Ethical Reasoning** | | | | **Design** | **Collect** | **Analyze** | **Engage** |
| **Teamwork** | | | | | **Design** | **Collect** | **Analyze** |
| **Quantitative Literacy** | | | | | | **Design** | **Collect** |
| **Diverse Perspectives** | **Design** | **Collect** | **Analyze** | **Engage** | **Evaluate** | **Reflect** | **Design** |

## Assessment Reporting for the Essentials Studies Program

### Annual Assessment Report

The General Education Advisory Council (GEAC) will prepare an annual assessment report of the Essential Studies program for submission to the Assessment Executive Committee, Academic Council and the Provost. This report will include the activities of each of the six ESLO subcommittees in the current year, therefore reporting on each of the six phases of the cycle. The Essential Studies Annual Assessment report will be shared with the university community and posted to the assessment website.

I. Introduction
   Leadership of the Essential Studies program
   Communication of the Essential Studies program to students, faculty, advisors, potential students, etc.
   Coordination with other campus bodies: Assessment Commission, Commission on College Teaching, Advising commission, Academic Council, the Registrar, Curriculum Planning Commission, Oregon Tech Online, Admissions, Student Affairs, etc.
   Resources to support the Essential Studies program

II. Purpose, objectives and outcomes of the Essential Studies program
   List purpose, objectives, and outcomes, summarize reviews, note changes and justification

III. Summary of activities of GEAC for the year

IV. Summary of current year activities relating to Six-year cycle of improvement
   Assessment Plan: assessment plan for ESLO to be assessed in coming academic year
   Evidence of student learning: Summary of data collection and aggregated results of ESLO assessed in current year

Program improvements: Action plan based on analysis of year-two results
Faculty professional development: Description of professional development activities related to ESLO highlighted in current year
Evidence of improvement: Aggregated results and analysis following implementation of action plan in past year
Changes resulting from assessment: Reflection on improvements as a result of assessment cycle

V. Conclusion
Summary of work for the academic year, significant findings, recommendations for program changes, etc.

VI. Appendices
ESLO course matrices
Rubrics
Signature assignments

**ESLO Report**

The Assessment Executive Committee will prepare an initial report for each ESLO in year-three and update in year-five and at the conclusion of the six-year cycle. This report will combine the information included in the Essential Studies program report for one ESLO over a six-year period of time. Reports will be submitted to the Academic Council, the Provost, and posted on the assessment website.

I. Executive Summary
II. Outcome, definition and criteria for assessment
List outcome statement, definition, and criteria for assessment
Summarize reviews, note changes and justification
III. Six-year cycle of assessment of the ESLO
IV. Assessment Plan
V. Evidence of student learning
Description of assessment including data collection and scoring
Assessment results and analysis
VI. Changes resulting from assessment
Program improvements implemented
Description of professional development activities related to ESLO
Evidence of improvement; results and analysis following implementation of actions
VII. Reflection on progress
Reflection on improvements and plans for innovation looking to next six-year cycle
VIII. Assessment Reporting
Description of university-wide communications and coordination with other campus bodies in relation to the six-year cycle
IX. Appendices
ESLO course matrices
Rubrics
Signature assignments
Faculty reflections
Membership of ESLO Faculty Learning Community over the past 6 years

## Appendix D

## Oregon Tech's Essential Student Learning Outcomes

Oregon Tech's Essential Student Learning Outcomes (ESLOs) support Oregon Tech's institutional mission and core themes. The outcomes and associated criteria reflect the rigorous applied nature of Oregon Tech's degree programs.

The ESLOs reflect the common expectations about the knowledge, skills, and abilities that Oregon Tech students will acquire and are reflected in the General Education requirements that lay the foundation upon which the major curricula build. Engaging in these ESLOs will support Oregon Tech graduates in developing the habits of mind and behaviors of professionals and lifelong learners.

### COMMUNICATION

**ESLO 1: Oregon Tech students will communicate effectively orally and in writing.**

**Definition.** Communication is the creation, development, and expression of ideas. The Communication ESLO differentiates between oral and written communication. The two forms of communication operate much the same but differ in the criterion *Style & Conventions* because of their differing forms of expression. Both forms of communication involve purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in attitudes, values, beliefs, or behaviors.

**Criteria.** The following are criteria used in the assessment of student work:

- Purpose & Audience: Identify a specific purpose, such as inform, persuade, or analyze, and utilize or create content appropriate to audience.
- Focus & Organization: Focus and organize content on a specific and appropriate organizing element: a thesis statement, purpose statement, or theme.
- Support & Documentation: Support claims with appropriate, relevant, and specific evidence, whether drawn from disciplinary knowledge, careful reasoning, or credible research, using the correct disciplinary approach to academic citation.
- Style & Conventions: Deliver content in spoken, written, or visual forms and media with professional and masterful content and form as appropriate to context.
- Visual: Employ and interpret high-quality visuals to illustrate, contribute to, or develop content.

- Justification: Articulate a clear rationale for communication choices, self-assess the quality of work, and elicit and use feedback to improve work.[1]

## INQUIRY AND ANALYSIS

**ESLO 2: Oregon Tech students will engage in a process of inquiry and analysis.**

**Definition.** Inquiry and analysis consists of posing meaningful questions about situations and systems, gathering and evaluating relevant evidence, and articulating how that evidence justifies decisions and contributes to students' understanding of how the world works.

**Criteria.** The following are criteria used in the assessment of student work:

- Identify: Identify a meaningful question or topic of inquiry.
- Investigate: Critically examine existing knowledge and views on the question or topic of inquiry.
- Support: Collect evidence based on the methodology or principles of the disciplines.
- Evaluate: Critically analyze and distinguish evidence obtained.
- Conclude: Come to a judgement based on evidence and understand the limitations and implications of that judgement.

## ETHICAL REASONING

**ESLO 3: Oregon Tech students will make and defend reasonable ethical judgments.**

**Definition.** Ethical reasoning is the process of recognizing which decisions require ethical judgments, determining potential reasonable courses of action, finding support for potential courses of action, and then selecting the course of action best supported.

**Criteria.** The following are criteria used in the assessment of student work:

- Theory: Demonstrate knowledge of different ethical theories and codes.
- Recognition: Recognize decisions requiring ethical judgements.
- Logic: Demonstrate knowledge of the logic of ethical reasoning.
- Judgment: Make and support plausible ethical decisions.

[1] This may be a separate assignment from the written or oral assignment used to assess the other criteria; this justification piece will ask the students to reflect on the deliberate choices they made during the composition process. While this is most often an implicit process, it will be made explicit for the purpose of assessment of at least one piece of written or oral communication.

## TEAMWORK

### ESLO 4: Oregon Tech students will collaborate effectively in teams or groups.

**Definition.** Teamwork encompasses the ability to accomplish group tasks and resolve conflict within groups and teams while maintaining and building positive relationships within these groups. Team members should participate in productive roles and provide leadership to enable an interdependent group to function effectively.

**Criteria.** The following are criteria used in the assessment of student work:

- Identify & Achieve Goal/Purpose: Share common goals and purpose.
- Assume Roles & Responsibilities: Fulfill roles and responsibilities, including leadership roles, which are clearly defined and shared. Members are motivated to complete work in a timely manner and provide leadership in meetings.
- Communicate Effectively: Communicate openly and respectfully, listen to ideas, and support and encourage each other.
- Reconcile Disagreement: Welcome disagreement and use difference to improve decisions.
- Contribute Appropriately: Contribute to discussions, decision-making, and work. The work product is a collective effort.
- Develop Strategies for Effective Action: Use effective decision making processes to decide on action, share expectations for outcomes, and reach consensus on decisions.
- Adjust for Differences: Recognize and adapt to differences in background and communication style.

## QUANTITATIVE LITERACY

### ESLO 5: Oregon Tech students will demonstrate quantitative literacy.

**Definition.** Quantitative literacy comprises the ability to appropriately extract, interpret, evaluate, construct, communicate, and apply quantitative information (e.g., equations, graphs, diagrams, tables, prose) and methods to solve problems, evaluate claims, and support decisions in students' everyday professional, civic, and personal lives.

**Criteria.** The following are criteria used in the assessment of student work:

- Calculate: Perform mathematical calculations correctly and evaluate/confirm that they have done so.
- Interpret: Extract and interpret quantitative information presented in various commonly used forms.

- Construct Representations: Convert relevant quantitative information and data into different forms as appropriate.
- Apply in Context: Apply appropriate quantitative methods, draw justified conclusions, evaluate claims, and make decisions based on quantitative information. Make and evaluate key assumptions in estimation, modeling, and data analysis.
- Communicate: In writing and (where appropriate) in speaking, effectively communicate accurate quantitative information in support of conclusions. In doing so, use representations of quantitative evidence appropriate to both audiences and purpose.

**DIVERSE PERSPECTIVES**

**ESLO 6: Oregon Tech students will explore diverse perspectives.**

**Definition.** Recognition of diverse perspectives requires the self-awareness, intellectual flexibility, and broad knowledge that enables perception of the world through the eyes of others.[2] This includes but is not limited to the awareness and understanding of the customs, practices, methodologies, and viewpoints of varied cultures, individuals, and identities.

**Criteria.** The following are criteria used in the assessment of student work:

- Recognize: Show awareness of one's own perspectives.
- Know: Demonstrate factual knowledge of the foundations of diverse perspectives.
- Understand: Display understanding and awareness of others' perspectives.
- Apply: Integrate factual knowledge and understanding of diverse perspectives to their interactions with others.

[2] i.e., from the perspectives of diverse cultures and personalities, with consideration of varied places, histories, and technologies.

**ESLO 1 Communication:**

**Oregon Tech students will communicate effectively orally and in writing.**

**Definition**

**Communication is the creation, development, and expression of ideas. The Communication ESLO differentiates between oral and written communication. The two forms of communication operate much the same but differ in the criterion Style and Delivery because of their differing forms of expression. Both forms of communication involve purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in attitudes, values, beliefs, or behaviors.**

| Performance Criteria | High Proficiency (4) The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency (3) The work *meets most requirements*; minor development would improve the work. | Some Proficiency (2) The work needs moderate development in *multiple requirements.* | Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in *most requirements.* |
|---|---|---|---|---|
| **Purpose and Audience** | • Content serves a specific, identifiable purpose (e.g., inform, persuade, analyze).<br>• Purpose and content are appropriate to the needs of a specific, identifiable, and appropriate audience.<br>• Content is tailored to the level of expertise, authority, and values of the audience.<br>• Communication medium (essay, memo, report, speech, etc.) matches purpose and audience. | Examples:<br>• Purpose may be inferred, but is not clearly stated<br>• Minor changes in approach or medium would make the work more meaningful or useful to the intended audience.<br>• Some content is too advanced/basic for the intended audience. | | Examples:<br>• Purpose is unclear, or requires substantial inference from the audience.<br>• Intended audience is unclear or overly broad.<br>• The work would not be meaningful or useful to the intended audience.<br>• The work omits or dismisses key audience concerns. |
| **Focus and Organization** | • Content is focused on a specific and appropriate organizing element: a thesis statement, purpose statement, or theme.<br>• Content is organized so that ideas relate clearly to each other and to the organizing element.<br>• Distinctions between major and minor claims are clear, providing consistent focus in content.<br>• Transition language (and other organizing elements, such as headings or lists) throughout organizes ideas and guides audience understanding. | Examples:<br>• Organizing element is present, but needs development (it is too broad, narrow, or trivial).<br>• Minor gaps in organization detract from the effectiveness of the work.<br>• Minor changes in organization would clarify the hierarchy of claims and information.<br>• Minor changes in transition language would improve the work (transitions between key ideas are choppy or abrupt). | | Examples:<br>• Organizing element is underdeveloped, inconsistent, or missing.<br>• Order and structure are unclear.<br>• Digressions compromise or obscure the work's purpose.<br>• Transitional elements are underdeveloped, inconsistent, or missing. |

| Performance Criteria | High Proficiency<br>(4)<br>The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency<br>(3)<br>The work *meets most requirements*; minor development would improve the work. | Some Proficiency<br>(2)<br>The work needs moderate development in *multiple requirements.* | Limited Proficiency<br>(1)<br>The work does not meet this criterion: it needs substantial development in *most requirements.* |
|---|---|---|---|---|
| **Support and Documentation** | • Claims are consistently supported with appropriate, relevant, and specific evidence, whether drawn from disciplinary knowledge, careful reasoning, or credible research.<br>• Evidence derived from sources supports and develops original content.<br>• Source material is credible; it is introduced and interpreted to provide context.<br>• Source material is documented accurately according to the appropriate conventions (academic citation style or disciplinary approach). | Examples:<br>• The work includes few instances of claims unsupported by appropriate evidence.<br>• Additional or more carefully chosen details would improve the work.<br>• The work includes (but does not rely on) evidence that lacks rigor, based on the audience's or discipline's standards.<br>• Additional context or discussion of credentials for sources of evidence would add value to the work.<br>• The work contains few, minor documentation errors (according to academic citation style or disciplinary approach). | | Examples:<br>• The work includes frequent instances of unsupported claims or key missing details.<br>• The work relies on evidence that lacks rigor, based on the audience's or discipline's standards.<br>• The work relies on demonstrably biased evidence (without providing appropriate context or qualification of that evidence).<br>• The work treats sources with bias, or demonstrates incomplete understanding of source material.<br>• The work does not meet academic citation or disciplinary standards. |
| **Style and Conventions** | • Students deliver content in spoken, written, or visual forms and media, as appropriate to context.<br>• Use of language (terminology and word choice, sentence structure, etc.) is clear and professional, demonstrating mastery of content and form.<br>• In written form, students demonstrate correct grammar, spelling, syntax, usage, and mechanics.<br>• In oral form, both verbal and nonverbal delivery demonstrate poise, preparation, mastery of material and audience awareness/ engagement. | Examples:<br>• (Where students have a choice in form or medium) a minor change in form or medium would make the work more accessible or engaging to the audience.<br>• Minor changes in terminology, word choice, sentence structure, or tone would improve the work.<br>• Written: the work contains minor, isolated errors in spelling, grammar, syntax, usage, and/or mechanics; an editing pass would improve the work.<br>• Oral: the work contains minor, isolated issues in verbal and/or non-verbal delivery; additional preparation or practice would improve the work. | | Examples:<br>• (Where students have a choice in form or medium) the choice or form or medium is inappropriate to audience, purpose, or context.<br>• Terminology, word choice, sentence structure, or tone are not in keeping with professional or academic expectations for the work.<br>• Written: prevalent or distracting spelling, grammar, syntax, usage, and/or mechanics errors compromise the work's impact, credibility, or coherence.<br>• Oral: prevalent or distracting verbal and/or non-verbal delivery issues compromise the work's impact, credibility, or coherence. |

| Performance Criteria | High Proficiency (4) The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency (3) The work *meets most requirements*; minor development would improve the work. | Some Proficiency (2) The work needs moderate development in *multiple requirements.* | Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in *most requirements.* |
|---|---|---|---|---|
| **Visual Communication** (where appropriate) | As appropriate to purpose and audience:<br>• High quality visuals are employed to illustrate, contribute to, or develop content, and not for purely aesthetic appeal.<br>• All visuals are appropriately introduced and interpreted.<br>• All visuals are documented according to the appropriate conventions (academic citation style or disciplinary approach). | Examples:<br>• Minor changes in content, organization, or appearance would enhance the visuals in the work.<br>• Additional or more carefully-chosen visuals would improve the work.<br>• Some (but a minority of) visuals in the work serve a purely aesthetic purpose, and relate only tangentially to the work's purpose and content.<br>• Additional context and interpretation of visuals would improve the work.<br>• The work contains few, minor documentation errors of visuals, or the information presented in visual format (according to academic citation style or disciplinary approach). | | Examples:<br>• The work includes any visuals that are inappropriate to audience or context.<br>• Necessary visuals are missing from the work.<br>• Most (or all) visuals in the work serve a purely aesthetic purpose, and relate only tangentially to the work's purpose and content.<br>• The work presents most (or all) visuals without context or interpretation.<br>• The work presents most (or all) visuals without documentation (according to academic citation style or disciplinary approach). |
| **Justification** (Self-Assessment) | Students:<br>• Articulate a clear rationale for communication choices (purpose and audience, focus and organization, support and documentation, style and conventions, and visual communication).<br>• Self-assess the quality of their work (including process and product).<br>• Elicit and effectively use feedback to improve their work. | Examples:<br>• Student omits evaluation of one ESLO criterion.<br>• Student's self-evaluation would be improved by a more rigorous analysis.<br>• Student's self-evaluation addresses only process, or only product, but does not address both.<br>• A more rigorous approach to eliciting and using feedback would improve the work. | | Examples:<br>• Student omits discussion of multiple ESLO criteria.<br>• Student's self-evaluation is cursory, facile, or is compromised by lack of insight (student overlooks obvious deficiencies in the work).<br>• Student demonstrates an inability or unwillingness to elicit or use feedback to improve the work. |

**ESLO 2 Inquiry & Analysis:**

**Oregon Tech students will engage in a process of inquiry and analysis.**

**Definition**

**Inquiry and analysis consists of posing meaningful questions about situations and systems, gathering and evaluating relevant evidence, and articulating how that evidence justifies decisions and contributes to students' understanding of how the world works.**

| Performance Criteria | High Proficiency (4) The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency (3) The work *meets most requirements*; minor development would improve the work. | Some Proficiency (2) The work needs moderate development in *multiple requirements*. | Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in *most requirements*. |
|---|---|---|---|---|
| **Identify** | Identifies a creative, focused, and manageable topic that addresses potentially significant yet previously less-explored aspects of the subject. | Identifies a focused and manageable topic that appropriately addresses relevant aspects of the subject. | Identifies a topic that, while manageable, is too narrowly focused and leaves out relevant aspects of the subject. | Identifies a topic that is too general and wide-ranging to be manageable. |
| **Investigate** | Clearly states, comprehensively describes, and synthesizes in-depth information from relevant high-quality sources representing various approaches and points of view. | States, comprehensively describes, and presents in-depth information from relevant high-quality sources representing various approaches and points of view. | Presents information from relevant sources representing a limited set of approaches or points of view, but descriptions leave some terms undefined or ambiguities unexplored. | Presents information from irrelevant sources representing a limited set of approaches or points of view, or states information without clarification or description. |
| **Support** | All elements of the methodology or theoretical framework are skillfully developed. (Appropriate methodology or theoretical frameworks may be synthesized from across disciplines.) | Critical elements of the methodology of theoretical framework are appropriately developed. However, more subtle elements are ignored. | Critical elements of the methodology of theoretical framework are missing, incorrectly developed, or unfocused. | Inquiry design demonstrates a misunderstanding of the methodology or theoretical framework. |
| **Evaluate** | Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to subject focus. | Organizes evidence to reveal important patterns, differences, or similarities related to subject focus. | Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities. | Lists evidence, the evidence presented is not organized or it is unrelated to the subject focus. |
| **Conclude** | States an eloquently supported conclusion that is a logical extrapolation of the inquiry, reflecting the student's informed evaluation and ability to place substantial evidence and perspectives in priority order. | States a conclusion focused solely on the inquiry findings, arising specifically from and responding specifically to the inquiry findings. | States a general conclusion beyond the scope of the inquiry, the support for which is inadequate, or information was chosen to fit the conclusion. | States an ambiguous, illogical, or fallacious conclusion that is inconsistently tied to the inquiry findings. |

**ESLO 3 Ethical Reasoning:**
**Oregon Tech Students will make and defend reasonable ethical judgements.**

**Definition: Ethical reasoning is the process of recognizing which decisions require ethical judgements, determining potential reasonable courses of action, finding support for potential courses of action, and then selecting the course of action best supported.**

| Performance Criteria | High Proficiency (4) The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency (3) The work *meets most requirements*; minor development would improve the work. | Some Proficiency (2) The work needs moderate development in *multiple requirements.* | Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in *most requirements.* |
|---|---|---|---|---|
| **Theory:** Student demonstrates knowledge of different ethical theories and codes. | The student demonstrates a developed knowledge of different ethical theories and codes and can justify their preferred theory or code. | The student demonstrates a developed knowledge of different ethical theories and codes. | The student demonstrates a basic knowledge of different ethical theories or a code. Student understands the difference between ethics and law. | The student has no knowledge of different ethical theories and codes. Student confuses legal and moral codes. |
| **Recognition:** Student can recognize decisions requiring ethical judgments. | The student is able to successfully recognize decisions requiring ethical judgments without prompting and can clearly explain why it requires ethical reasoning to others. | The student is able to successfully recognize decisions requiring ethical judgments without prompting. | The student is able to recognize decisions requiring ethical judgments with prompting. | The student is unable to recognize decisions requiring ethical judgments. |
| **Logic:** Student demonstrates knowledge of the logic of ethical reasoning. | The student can formulate and test plausible moral principles* and apply them to a case to derive a course of action. | The student can formulate basic moral principles* and apply them to a case to derive a course of action. | The student can take an existing moral principle* (possibly from a code of ethics) and apply it to a case to derive a course of action. | The student has no knowledge of the logic of ethical reasoning. |
| **Judgment:** Student can make and support plausible ethical decisions. | The student is able to apply ethical reasoning to novel situations and provide detailed support for their decisions, as well as refuting other possible decisions. | The student is able to make plausible ethical decisions and support them at a competent level. At this level, the student begins to generalize their reasoning to similar situations. | The student is able to make plausible ethical decisions, but their support may be rudimentary or underdeveloped. | The student is unable to make and support plausible ethical decisions. |

**ESLO 4 Teamwork:**
**Oregon Tech students will collaborate effectively in teams or groups.**

**Definition**
**Teamwork encompasses the ability to accomplish group tasks and resolve conflict within groups and teams while maintain and building positive relationships within these groups. Team members should participate in productive roles and provide leadership to enable an interdependent group to function effectively.**

| Performance Criteria | Capstone Level (4) The following are achieved *without prompting* from instructor: | Practice Level (3) | Foundation Level (2) | Pre-Foundation Level (1) | Pre-Foundation Level (0) |
|---|---|---|---|---|---|
| **Identify and achieve goal/purpose** | • When appropriate, realistic, prioritized and measurable goals are agreed upon and documented.<br>• All team members share the common objectives/purpose.<br>• Team achieves goal. | • When appropriate, realistic, prioritized and measurable goals are agreed upon and documented.<br>• All team members share the common objectives/purpose.<br>• Team achieves goal. | • Group shares common goals and purpose.<br>• Few priorities are unrealistic or undocumented.<br>• Group achieves goal. | • Individuals share some goals but a common purpose may be lacking.<br>• Priorities may be unrealistic and documentation may be incomplete.<br>• Group may not achieve goal. | • Clear goals are not formulated or documented; thus all members don't accept or understand the purpose/task of the group.<br>• Group does not achieve goal. |
| **Assume roles and responsibilities** | • Members consistently and effectively fulfill roles and responsibilities.<br>• Leadership roles are clearly defined and/or shared.<br>• Members move team toward the goal by giving and seeking information or opinions, and assessing ideas and arguments critically.<br>• Members are all self-motivated and complete assignments on time.<br>• Most members attend all meetings.<br>• Members reflect on group processes, provide feedback to other group members and make changes as necessary. | • Members consistently and effectively fulfill roles and responsibilities.<br>• Leadership roles are clearly defined and/or shared.<br>• Members move team toward the goal by giving and seeking information or opinions, and assessing ideas and arguments critically.<br>• Members are all self-motivated and complete assignments on time.<br>• Most members attend all meetings.<br>• Members reflect on group processes, provide feedback to other group members and make changes as necessary. | • Members often fulfill roles and responsibilities. Leadership roles are generally defined and/or shared.<br>• Generally, members are motivated and complete assignments in a timely manner.<br>• Many members attend most meetings. | • Some members may not fulfill roles and responsibilities.<br>• Leadership roles are not clearly defined and/or effectively shared.<br>• Some members are not motivated and some assignments are not completed in a timely manner.<br>• Meetings rarely include most members. | • Members do not fulfill roles and responsibilities.<br>• Leadership roles are not defined and/or shared.<br>• Members are not self-motivated and assignments are not completed on time.<br>• Many members miss meetings.<br>• Members continue processes that prove nonfunctional. |

| Performance Criteria | Capstone Level (4)<br>**The following are achieved *without prompting* from instructor**: | Practice Level (3) | Foundation Level (2) | Pre-Foundation Level (1) | Pre-Foundation Level (0) |
|---|---|---|---|---|---|
| **Communicate effectively** | • Members always communicate openly and respectfully.<br>• Members listen to each other's ideas.<br>• Members support and encourage each other.<br>• Communication patterns foster a positive climate that motivates the team and builds cohesion and trust. | • Members always communicate openly and respectfully.<br>• Members listen to each other's ideas.<br>• Members support and encourage each other.<br>• Communication patterns foster a positive climate that motivates the team and builds cohesion and trust. | • Members usually communicate openly and respectfully.<br>• Members often listen to most ideas.<br>• Members usually support and encourage each other. | • Members may not consistently communicate openly and respectfully.<br>• Members may not listen to each other. | • Members do not communicate openly and respectfully.<br>• Members do not listen to each other.<br>• Communication patterns undermine teamwork |
| **Reconcile disagreement** | • All members welcome disagreement and use difference to improve decisions.<br>• All members respect and accept disagreement and employ effective conflict resolution skills.<br>• Subgroups absent. | • All members welcome disagreement and use difference to improve decisions.<br>• All members respect and accept disagreement and employ effective conflict resolution skills.<br>• Subgroups absent. | • Many members welcome disagreement and use difference to improve decisions.<br>• Most members respect and accept disagreement and work to account for differences.<br>• Subgroups rarely present. | • Few members welcome disagreement. Difference often results in voting.<br>• Some members respect and accept disagreement and work to account for differences.<br>• Subgroups may be present. | • Members do not welcome disagreement.<br>• Difference often results in voting. Subgroups are present. |
| **Share appropriately** | • All members contribute significantly to discussions, decision making and work.<br>• The work product is a collective effort; team members have both individual and mutual accountability for the successful completion of the work product. | • All members contribute significantly to discussions, decision making and work.<br>• The work product is a collective effort; team members have both individual and mutual accountability for the successful completion of the work product. | • Many members contribute to discussions, decision-making and work.<br>• Individuals focus on separate sections of the work product, but have a coordinator who ties the disparate parts together (they rely on the sum of each individual's work). | • Contributions are unequal although all members contribute something to discussions, decision making and work.<br>• Coordination is sporadic so that the final work product is of uneven quality. | • Contributions are unequal.<br>• Certain members dominate discussions, decision making, and work.<br>• Some members may not contribute at all.<br>• Individuals work on separate sections of the work product, but have no coordinating effort to tie parts together. |

| Performance Criteria | Capstone Level (4)<br>**The following are achieved *without prompting* from instructor**: | Practice Level (3) | Foundation Level (2) | Pre-Foundation Level (1) | Pre-Foundation Level (0) |
|---|---|---|---|---|---|
| **Develop strategies for effective action** | • Members use effective decision making processes to decide on action.<br>• Group shares a clear set of norms and expectations for outcomes.<br>• Group reaches consensus on decisions and produces detailed plans for action. | • Members use effective decision making processes to decide on action.<br>• Group shares a clear set of norms and expectations for outcomes.<br>• Group reaches consensus on decisions and produces detailed plans for action. | • Members usually use effective decision making processes to decide on action.<br>• Most of the group shares norms and expectations for outcomes.<br>• Group reaches consensus on most decisions and produces plans for action. | • Members sometimes use decision making processes to decide on action. Some of the members of the group do not share norms and expectations for outcomes. Group sometimes fails to reach consensus. Plans for action are informal and often arbitrarily assigned. | • Members seldom use decision making processes to decide on action.<br>• Individuals often make decisions for the group.<br>• The group does not share common norms and expectations for outcomes.<br>• Group fails to reach consensus on most decisions.<br>• Group does not produce plans for action. |
| **Cultural Adaptation** | • Members always recognize and adapt to differences in background and communication style. | • Members always recognize and adapt to differences in background and communication style. | • Members usually recognize and adapt to differences in background and communication style. | • Members may recognize, but do not adapt to differences in background and communication style | • Members do not recognize differences in background or communication style. |

**ESLO 5 Quantitative Literacy:**
**Students will demonstrate quantitative literacy.**

**Definition**
**Quantitative literacy comprises the ability to appropriately extract, interpret, evaluate, construct, communicate, and apply quantitative information and methods to solve problems, evaluate claims, and support decisions in students' everyday professional, civic, and personal lives.**

| Performance Criteria | Foundational (instructions given in detail) | Practicing (general instructions given) | Capstone (little to no instruction) |
|---|---|---|---|
| **Calculate** | Perform fair short single computations with tools provided. | Perform longer and more complicated computations, or solve problems involving sequences of linked computations selecting from a list of possible tools. | Perform challenging computations and sequences of computations, knowing the tools needed. |
| **Interpret** | When prompted, identify specific parts of equations or expressions, interpret specific data points on graphs, interpret results of computations literally. | In response to broad instructor prompting, interpret equations or expressions in a general sense, interpret overall patterns and trends in graphical information. When appropriate, interpret differences in computational results. | Give holistic interpretations of methods, tools used, and results, with little to no instructor prompting or guidance. |
| **Construct Representations** | Construct graphical models of statistical information in response to specific instructor prompting. | Construct analytical (equation) or graphical models of mathematical relationships in response to broad instructor prompting. | Construct appropriate, complex, and clearly labeled analytical and/or graphical models with little to no instructor prompting or guidance. |
| **Apply in Context** | Solve problems using given formulas or frameworks. | Choose correct formulas, set up correct equations (or systems of equations), and/or choose correct frameworks to solve problems in response to broad instructor prompting. Acknowledge assumptions used in solving problem(s). | Solve relevant complex, multifaceted problems, with little to no instructor prompting, or guidance. Acknowledge and justify assumptions used in solving problem(s). |
| **Communicate** | Accurately integrate quantitative evidence into basic arguments in response to specific prompts. Quantitative evidence is conveyed and explained in such a way that a competent non-expert reader can follow along. | Accurately integrate quantitative evidence into an extended argument in response to a broad prompt. While instructor provides guidance, student uses quantitative evidence to identify, explain, and/or solve a problem. Quantitative evidence is conveyed and explained in such a way that a competent non-expert reader can follow along. | Accurately integrate quantitative evidence into complex arguments with little to no prompting or guidance. Quantitative evidence is conveyed and explained in such a way that a competent non-expert reader can follow along. |

**ESLO 6 Diverse Perspectives:**
**Oregon Tech students will explore diverse perspectives.**

**Definition**
**Recognition of diverse perspectives requires the self-awareness, intellectual flexibility, and broad knowledge that enables perception of the world through the eyes of others.[3] This includes but is not limited to the awareness and understanding of the customs, practices, methodologies, and viewpoints of varied cultures, individuals, and identities.**

| Performance Criteria | High Proficiency (4) The work *meets listed requirements* for this criterion; little to no development needed. | Proficiency (3) The work *meets most requirements*; minor development would improve the work. | Some Proficiency (2) The work needs moderate development in *multiple requirements.* | Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in *most requirements.* |
|---|---|---|---|---|
| **Recognize:** Shows awareness of one's own perspective. | The student demonstrates a **refined** self-awareness in relation to other perspectives. | The student demonstrates an **evolving** self-awareness in relation to other perspectives. | The student demonstrates an **emerging** self-awareness in relation to other perspectives. | The student does **not** demonstrate self-awareness in relation to other perspectives. |
| **Know:** Demonstrates factual knowledge of the foundations of others' perspectives. | The student **applies** factual knowledge of diverse cultures, personalities, places, histories, and/or technologies to their students/work/community. | The student acquires a **developed** body of factual knowledge regarding diverse cultures, personalities, places, histories, and/or technologies. | The student acquires a **basic** level of factual knowledge regarding diverse cultures, personalities, places, histories, and/or technologies. | The student has **no** factual knowledge of diverse cultures, personalities, places, histories, and/or technologies. |
| **Understand:** Displays understanding of others' perspectives through practice. | The student is able to **apply** their understanding of a diversity of perspectives to their studies/work/community. | The student is able to **understand** a diversity of perspectives. | The student is able to **recognize** diverse perspectives. | The student is **unable** to recognize diverse perspectives. |
| **Apply:** Applies factual knowledge and understanding of diverse perspectives to their interactions with others. | The student applies their knowledge and understanding of diverse perspectives to their **studies/work/community.** * | The student **applies** their knowledge and understanding of diverse perspectives to their studies. | The student may **understand how** to apply knowledge and understanding of diverse perspectives to their studies, but **does not do so**. | The student is **unable** to apply knowledge and understanding of diverse perspectives to their studies. |

[3] i.e., from the perspectives of diverse cultures and personalities, with consideration of varied places, histories, and technologies.

## Appendix E

## Plan for Assessment of Inquiry & Analysis
## 2017-18

**ESLO 2: Oregon Tech students will engage in a process of inquiry and analysis.**

**Definition**
Inquiry and analysis consists of posing meaningful questions about situations and systems, gathering and evaluating relevant evidence, and articulating how that evidence justifies decisions and contributes to students' understanding of how the world works.

**Criteria for Inquiry and Analysis Assessment**

The following are criteria used in the assessment of student work:

- Identify: Identify a meaningful question or topic of inquiry.
- Investigate: Critically examine existing knowledge and views on the question or topic of inquiry.
- Support: Collect evidence based on the methodology or principles of discipline.
- Evaluate: Critically analyze and distinguish evidence obtained.
- Conclude: Come to a judgment based on evidence and understand the limitations and implications of that judgment.

### Description

During the 2017-18 academic year, Oregon Tech will assess the Inquiry and Analysis ESLO. This comprehensive assessment is designed to measure students' ability to demonstrate inquiry and analysis foundational knowledge and skill in general education courses, their ability to practice this knowledge and skill in upper division general education courses, and the transfer of this knowledge and skill to an application within the context of their discipline. The General Education Advisory Council (GEAC) and the Inquiry and Analysis faculty learning community will use the results of this assessment to evaluate the criteria and rubric for inquiry and analysis, identify how well the criteria can be used to develop assignments in a variety of majors, and determine the effectiveness of the Essential Studies Inquiry and Analysis pathway. The plan for assessment is as follows:

- General education assessment will be conducted in a sample of courses identified as Foundation and Essential Practice in the Essential Studies Inquiry and Analysis pathway. The sample will be determined by the GEAC and the Inquiry and Analysis faculty learning community.
- Program assessment will be conducted in courses identified by program faculty as Program-Integrated Inquiry and Analysis based on the fall 2016 Essential Studies mapping exercise. Assessment will be conducted in each baccalaureate degree program.
- The Commission on College Teaching (CCT) and the Inquiry and Analysis faculty learning community will offer assignment design workshops and rubric training for participating faculty.
- The time period for assessment will span the 2017-18 academic year including Fall 2017, Winter 2018, and Spring 2018.

**Rubric**
The Assessment Commission will use the Inquiry and Analysis rubric developed by the Inquiry and Analysis ESLO committee for this assessment. Both faculty and students will receive the rubric. This assessment will inform potential changes to the rubric.

**Data Collection**
The Office of Academic Excellence will assist faculty by providing training and support for data collection using LiveText. Data to be collected will include the original assignment, student work, and scores for each student based on the rubric. Data will be aggregated for further analysis by the Inquiry and Analysis faculty learning community, GEAC, and the Executive Committee of the Assessment Commission.

**Data Elements**
Student scores for each of the five performance criteria will be collected in this assessment process and linked to institutional data for further analysis (30 data fields from Banner). Analysis can be performed in LiveText at the institutional, college, department, program, and course level.

**Data Reporting**
The Director of Academic Excellence will prepare a written report of this assessment which will include analysis and recommendations from the Inquiry and Analysis faculty learning community, GEAC, and the Executive Committee of the Assessment Commission. The Director of Academic Excellence along with CCT and the Inquiry and Analysis faculty learning community will report the results of the assessment to the faculty in convocation presentations and workshops, and the final report will be posted on the assessment website.

**Documentation**
All documentation from this activity, including the final report, assessment assignments, student work, results, and faculty reflections will be captured in LiveText, and complied in the Academic Excellence Office records.

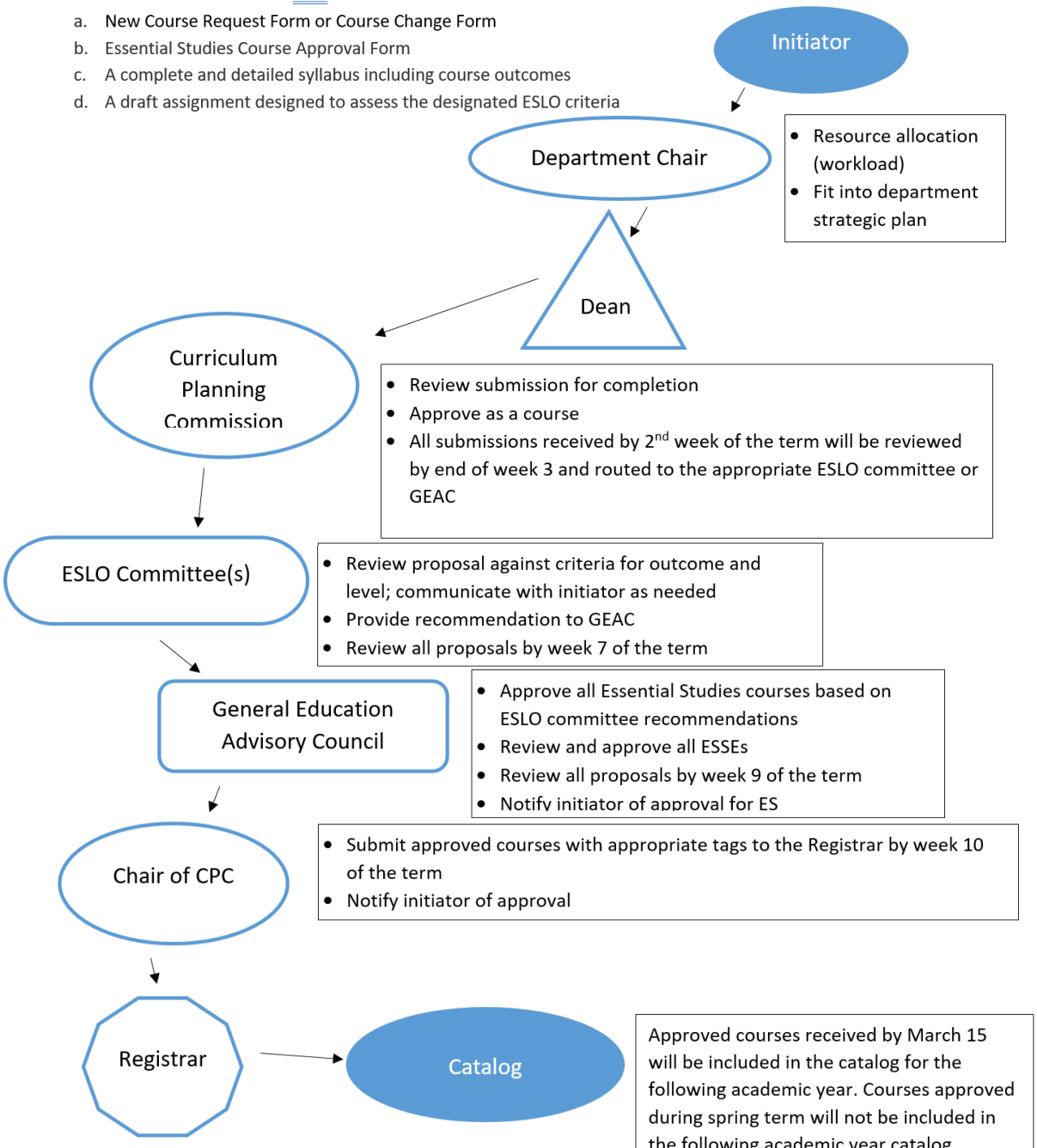
## Appendix F

## General Education Course Approval Process and Form

(as used during 2016-2017 academic year)

# Essential Studies Course Approval Process

1. The following procedures apply for approval of, or changes to, Essential Studies courses.
2. The initiator will submit to CPC:
   a. New Course Request Form or Course Change Form
   b. Essential Studies Course Approval Form
   c. A complete and detailed syllabus including course outcomes
   d. A draft assignment designed to assess the designated ESLO criteria



Oregon TECH

# Essential Studies Course Approval Form

**Course Number & Title:**

_____

(use a separate form for each course and ESLO)

**I. Logistical Information:** List the term(s) offered, locations and modes of offering, and projected capacity:

## II. Levels of Achievement & Prerequisites

What is this course's level of achievement for the ESLO? (Select foundation, practice or capstone)

- **Foundation**. Learning new knowledge and skills. Assignments reflect significant scaffolding; highly structured environment. Active learning is appropriate at this level.
- **Practice**. Learning how to apply knowledge and skills in scripted examples. Assignments reflect moderate scaffolding, but students are learning how to work with less structured/open-ended problems and situations.
  *Prerequisite courses:* _____
  Indicate which type of course and specific prerequisites this course builds on:
  - Essential Practice. Practice courses taught by content area experts.
  - Program-Integrated. Practice courses that require demonstration of ESLOs within the major.
  - ESSE. Cross-disciplinary experience that demonstrates synthesis of all ESLOs.
- **Capstone**. Students meet the criteria with minimal or no prompting. Assignments reflect no scaffolding; students work independently in unstructured environments.
  *Prerequisite courses:* _____

**III. ESLO:** Indicate which ESLO and criteria this course will fulfill.

| ☐ COM | ☐ IA | ☐ ER | ☐ TW | ☐ QL | ☐ DP |
|---|---|---|---|---|---|
| ☐ Oral<br>☐ Written | ☐ IA-H<br>☐ IA-SS<br>☐ IA-NS | | | | |
| ☐ Purpose<br>☐ Audience<br>☐ Evidence<br>☐ Genre<br>☐ Style & delivery<br>☐ Visual<br>☐ Justification | ☐ Identify<br>☐ Investigate<br>☐ Support<br>☐ Evaluate<br>☐ Conclude | ☐ Theory<br>☐ Recognition<br>☐ Logic<br>☐ Judgment | ☐ Achieve purpose<br>☐ Fulfill roles<br>☐ Communicate<br>☐ Reconcile<br>☐ Contribute<br>☐ Develop strategies<br>☐ Adjust | ☐ Calculate<br>☐ Interpret<br>☐ Construct<br>☐ Apply in context<br>☐ Communicate | ☐ Recognize<br>☐ Know<br>☐ Understand<br>☐ Apply |

**a. How do students learn and practice the targeted ESLO within this course?** Briefly describe how the course as a whole addresses the criteria checked above for the targeted ESLO, including potential texts, instructional approaches, and/or course materials. (Attach detailed syllabus that includes course outcomes.)

**b. How do students demonstrate the appropriate level of proficiency in this ESLO?** Briefly describe a significant assignment(s) and/or student work appropriate for proficiency assessment in this ESLO, identifying how the assignment(s) will require students to demonstrate each of the criteria checked above. (Attach assignment(s).)

Department chair and dean signatures indicate proposal fits departmental and academic strategic plans and are willing to commit appropriate resources to support the proposed course. In addition, the department chair commits to ensuring course outcome alignment over all sections, locations and modes of delivery.

_____

Department Chair

_____

Dean

*If submitting this form in conjunction with CPC changes, please submit by including with your CPC submission. If you are submitting this form only for Essential Studies course approval with no other changes, please submit to GEAC support nellie.stewart@oit.edu or OW145.*

## Appendix G

## Approved Essential Studies Course Lists

(reviewed by GEAC 18 May 2017 and 15 June 2017)

The below lists describe the course lists meeting Essential Studies requirements as reviewed by ESLO committees and approved by GEAC during the 2016-2017 academic year. We anticipate some further additions to these lists in Fall 2017. Below each list is a note on the current status of the list and further work that may be needed to complete it to a form usable in final program mapping.

All courses listed below without additional annotation are considered as approved by GEAC for catalog and curriculum mapping use.

ESLO 1: Communication

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| *FOUNDATION* | | | |
| Fall 2016 | SPE 111 | Public Speaking | * |
| Fall 2016 | WRI 121 | English Composition | * |
| Fall 2016 | WRI 122 | Argumentative Writing | * |
| *ESSENTIAL PRACTICE* | | | |
| Fall 2016 | COM 225 | Interpersonal Communication | ** |
| Fall 2016 | WRI 227 | Technical Report Writing | Spring 2017 |
| Fall 2016 | WRI 327 | Advanced Technical Writing | Spring 2017 |
| Fall 2016 | WRI 350 | Documentation Development | Spring 2017 |
| Fall 2016 | WRI 410 | Proposal and Grant Writing | Winter 2017 |

Status of list:
* GEAC is still awaiting submission of documentation demonstrating the alignment of SPE111, WRI121, and WRI122 with Communication criteria. Approval is expected without difficulty.

** Redevelopment of Essential Practice Communication courses is currently underway in the Communication department and is expected to continue in the 2017-2018 academic year. However, approval of the above course, in addition to new discipline-oriented technical writing courses in Health Sciences and Engineering, are expected without difficulty.

ESLO 2: Inquiry & Analysis

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| *FOUNDATION – Humanities* | | | |
| Fall 2016 | HUM 105 | Everyone's a Critic: Text, Images, Games | Fall 2016 |
| Fall 2016 | HUM 125 | Introduction to Technology, Society and Values | Fall 2016 |
| Fall 2016 | HUM 147 | Western Civilization in the Classical Age | Fall 2016 |
| Fall 2016 | HUM 148 | Western Civilization in the Medieval Age | Fall 2016 |
| Fall 2016 | HUM 149 | Western Civilization in the Modern Age | Fall 2016 |
| Fall 2016 | HUM 245 | Digital Diversity | Spring 2017 |
| Fall 2016 | PHIL 105 | Introduction to Ethics | Fall 2016 |
| Fall 2016 | PHIL 205 | Introduction to Logic | Fall 2016 |

| | | | |
|---|---|---|---|
| *FOUNDATION – Natural Sciences* | | | |
| Fall 2016 | BIO 101 | Introduction to Cell Biology | Fall 2016 |
| Fall 2016 | BIO 111 | Introduction to Environmental Science | Spring 2017 |
| Fall 2016 | CHE 101/104 | Introduction to General Chemistry with Lab | Fall 2016 |
| Spring 2017 | CHE 201/204 | General Chemistry with Lab | Spring 2017 |
| Fall 2016 | CHE 221 | General Chemistry | Spring 2017 |
| *FOUNDATION – Social Sciences* | | | |
| Fall 2016 | ECO 201 | Principles of Microeconomics | Spring 2017 |
| Fall 2016 | ECO 202 | Principles of Macroeconomics | Fall 2016 |
| Spring 2017 | HIST 201 | US History | Spring 2017 |
| Spring 2017 | HIST 202 | US History | Spring 2017 |
| Spring 2017 | HIST 203 | US History | Spring 2017 |
| Fall 2016 | PSY 201 | Psychology | Fall 2016 |
| Fall 2016 | PSY 202 | Psychology | Fall 2016 |
| Fall 2016 | SOC 204 | Introduction to Sociology | Fall 2016 |
| Fall 2016 | SOC 225 | Medical Sociology | Fall 2016 |
| *ESSENTIAL PRACTICE – Humanities* | | | |
| Fall 2016 | HUM 335 | Video Game Studies | Spring 2017 |
| Winter 2017 | LIS 305 | Research Strategies | Spring 2017 |
| Fall 2016 | LIT 253 | 19th Century American Literature | Spring 2017 |
| Fall 2016 | LIT 254 | 20th Century Literature | Spring 2017 |
| Fall 2016 | LIT 255 | Contemporary American Literature | Spring 2017 |
| Fall 2016 | LIT 315 | Science Fiction Literature Film | Spring 2017 |
| Fall 2016 | LIT 325 | The Metropolis | Spring 2017 |
| Fall 2016 | PHIL 305 | Medical Ethics* | Winter 2017 |
| Fall 2016 | PHIL 325 | Environmental Ethics* | Winter 2017 |
| Fall 2016 | PHIL 331 | Ethics in the Professions* | Winter 2017 |
| Fall 2016 | PHIL 335 | Philosophy of Science | Winter 2017 |
| Fall 2016 | PHIL 342 | Business Ethics* | Winter 2017 |
| Fall 2016 | PHIL 405 | Advanced Logic | Winter 2017 |
| *ESSENTIAL PRACTICE – Sciences* | | | |
| Fall 2016 | PSY 308 | Psychology of Eating | Spring 2017 |
| Fall 2016 | PSY 321 | Theories of Personality I | Spring 2017 |
| Fall 2016 | PSY 322 | Theories of Personality II | Spring 2017 |
| Fall 2016 | PSY 330 | Social Psychology I | Spring 2017 |
| Fall 2016 | PSY 331 | Social Psychology II | Spring 2017 |

*Note: Ethical Reasoning Essential Practice courses can-not be double-dipped (each also meet Inquiry & Analysis criteria).

Status of list: GEAC anticipates significant further growth of these lists, particularly from the following disciplines:

Humanities (Foundation and Essential Practice): ART.
Social Sciences (especially Essential Practice): HIST, GEOG, ANTH, PSCI, SOC.
Natural Sciences (especially Essential Practice): BIO2xx, CHE 2xx, PHY 2xx, GEOL, and ENV.

Further discussion surrounding cross-listing of PSY201/2/3 on IA and DP lists may be desirable.

Meetings with HSS and NS chairs will need to occur during summer 2017 to identify a targeted list of courses to seek submission for by early fall term 2017.

ESLO 3: Ethical Reasoning

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| *ESSENTIAL PRACTICE* | | | |
| Fall 2016 | PHIL 305 | Medical Ethics | Fall 2016 |
| Fall 2016 | PHIL 325 | Environmental Ethics | Fall 2016 |
| Fall 2016 | PHIL 331 | Ethics in the Professions | Fall 2016 |
| Fall 2016 | PHIL 342 | Business Ethics | Fall 2016 |

Status of list: GEAC does not anticipate further changes to this list at this point in time.

Note: Ethical Reasoning Essential Practice courses can-not be double-dipped (each also meet Inquiry & Analysis criteria).

ESLO 4: Teamwork

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| *FOUNDATION* | | | |
| | SPE 221 | Small Group and Team Communication | ** |

Status of list: GEAC is still awaiting submission of documentation demonstrating the alignment of **SPE221 with Teamwork criteria. Approval is expected without difficulty.

ESLO 5: Quantitative Literacy

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| *FOUNDATION* | | | |
| Fall 2016 | MATH 361 | Statistical Methods I | Fall 2016 |
| Winter 2017 | MATH 243 | Introductory Statistics | Spring 2017 |
| *ESSENTIAL PRACTICE* | | | |
| Fall 2016 | BUS 331 | Personal Finance | Spring 2017 |
| Fall 2016 | ECO 202 | Principles of Macroeconomics | Spring 2017 |
| Spring 2017 | MATH 371 | Finite Math and Calculus I | Spring 2017 |
| Winter 2017 | MGT 345 | Engineering Economy | ** |

Status of list: Pending final ESLO committee approval of **MGT345 and possible inclusion of ECO201, and ACC 201, GEAC does not anticipate significant changes to this list at this point in time.

Further consideration needed regarding whether cross-listing of ECO201/202 between Essential Practice QL and Foundational Inquiry & Analysis is permissible and whether student "double-dipping" would be allowed.

ESLO 6: Diverse Perspectives

| SUBMIT DATE | COURSE | TITLE | ESLO APPROVED |
|---|---|---|---|
| | | *FOUNDATION* | |
| Spring 2016 | COM 205 | Intercultural Communication | Fall 2016 |
| Fall 2016 | HUM 105 | Everyone's a Critic: Text, Images, Games | Fall 2016 |
| Fall 2016 | HUM 147 | Western Civilization in the Classical Age | Fall 2016 |
| Fall 2016 | HUM 148 | Western Civilization in the Medieval Age | Fall 2016 |
| Fall 2016 | HUM 149 | Western Civilization in the Modern Age | Fall 2016 |
| Fall 2016 | HUM 245 | Digital Diversity | Fall 2016 |
| Fall 2016 | PSY 203 | Psychology | Spring 2017 |
| Fall 2016 | SOC 201 | Social Theory | Fall 2016 |
| Fall 2016 | SOC 204 | Introduction to Sociology | |
| | | *ESSENTIAL PRACTICE* | |
| Fall 2016 | COM 325 | Gender and Communication | Fall 2016 |
| Spring 2017 | HIST 452 | Globalization and the PNW | |
| Fall 2016 | HUM 335 | Video Game Studies | Fall 2016 |
| Fall 2016 | LIT 305 | American Nature Writing | Fall 2016 |
| Fall 2016 | LIT 335 | Travel Writing (Fiction and Nonfiction) | Fall 2016 |
| Fall 2016 | PSY 321 | Theories of Personality I | Fall 2016 |
| Fall 2016 | PSY 322 | Theories of Personality II | Fall 2016 |
| Fall 2016 | PSY 330 | Social Psychology I | Fall 2016 |
| Fall 2016 | PSY 331 | Social Psychology II | Fall 2016 |
| Fall 2016 | PSY 358 | Psychology of Gender | Fall 2016 |
| Fall 2016 | PSY 371 | Human Sexuality I | Fall 2016 |
| Fall 2016 | PSY 372 | Human Sexuality II | Fall 2016 |

Status of list: GEAC anticipates significant further growth of these lists, particularly from the following disciplines:

Social Sciences: HIST, GEOG, ANTH, PSCI, SOC.
Communication: COM

Further discussion surrounding cross-listing of PSY201/2/3 on IA and DP lists may be desirable.

Meetings with HSS and Comm chairs will need to occur during summer 2017 to identify a targeted list of courses to seek submission for by early fall term 2017.

**Appendix H**

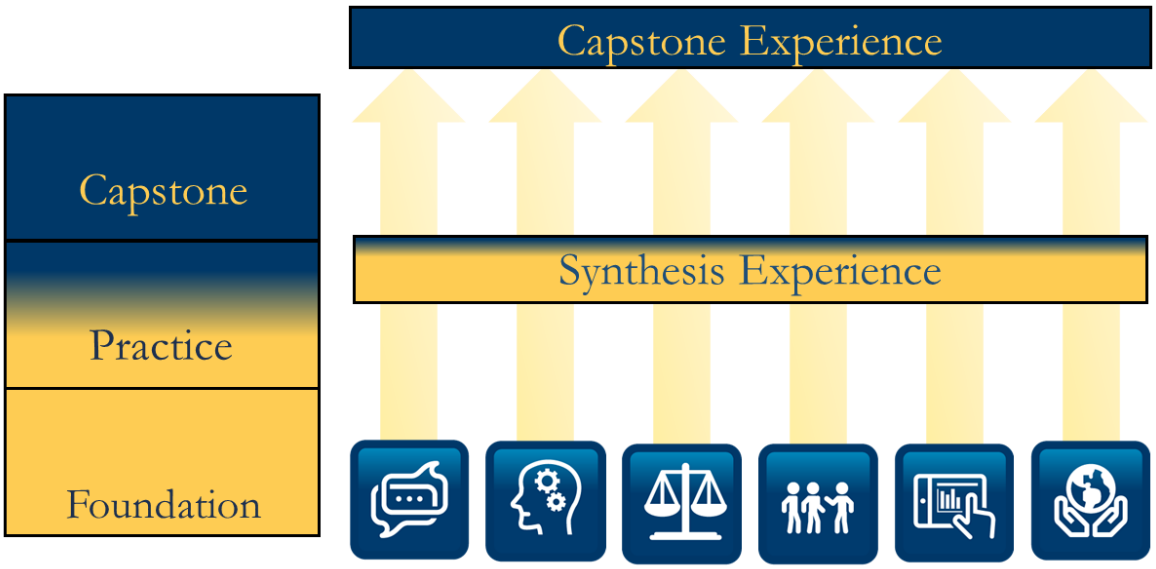
**General Education Curriculum Mapping Process**

(presentation to department chairs and program directors, 4 November 2016)


## Purpose of today's session

- To provide tools
- This mapping will:
  - Help programs better understand the full model
  - Provide mechanisms for detailed feedback
  - Help assess impact on transfer
  - Help assess resource needs
  - Prepare for CPC approval in 2017-18

# Essential Studies: the Path to Success




# Mapping Tools

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 18 | PHY 221 | 4 | General Physics with Calculus | | PHY 221 | 4 | General Physics with Calculus |
| 19 | WRI 122 | 3 | Argumentative Writing | | WRI 122 | 3 | Argumentative Writing |
| 20 | X | 3 | Social Science Elective | | X | 3 | Social Science Elective |
| 21 | | | | | | | |
| 22 | **Freshman Year - Spring** | | | | **Freshman Year - Spring** | | |
| 23 | MATH 253N | 4 | Sequences and Series | | MATH 253N | 4 | Sequences and Series |
| 24 | PHY 222 | 4 | General Physics with Calculus | | PHY 222 | 4 | General Physics with Calculus |
| 25 | X | 3 | Humanities Elective | | X | 3 | Humanities Elective |
| 26 | X | 3 | Social Science Elective | | X | 3 | Social Science Elective |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | **Sophomore Year - Fall** | | | | **Sophomore Year - Fall** | | |
| 30 | MATH 254N | 4 | Vector Calculus I | | MATH 254N | 4 | Vector Calculus I |
| 31 | MATH 327 | 4 | Discrete Mathematics | | MATH 327 | 4 | Discrete Mathematics |
| 32 | PHY 223 | 4 | General Physics with Calculus | | PHY 223 | 4 | General Physics with Calculus |
| 33 | X | 3 | Elective | | X | 3 | Elective |
| 34 | | | | | | | |
| 35 | | | | | | | |
| 36 | **Sophomore Year - Winter** | | | | **Sophomore Year - Winter** | | |

Intructions | Curriculum Mapping | Reflection Questions | Draft Course Lists | ESLO Definitions

# A Proposed Process

**Step 1:** Identify your disciplinary capstone

**Step 2:** Identify Program-Integrated Courses

**Step 3:** Identify Program-Integrated Foundational Ethics

**Step 4:** Identify Foundational and Essential Practice Requirements

**Step 5:** Insert Remaining Essential Studies Requirements

# Preparation for Mapping with Faculty

**Freshman Year - Fall**

| |
|---|
| WRI 121 - English Composition |
| MATH 111 - College Algebra |
| x - Humanities elective |
| x - Social Science elective |

**Freshman Year - Winter**

| |
|---|
| WRI 122 - Argumentative Writing |
| MATH 112 - Trigonometry |
| EE 121 - Fundamentals of Electric Circuits I |
| x - Social Science elective |

**Freshman Year - Spring**

| |
|---|
| SPE 111 - Public Speaking |
| MATH 251 - Differential Calculus |
| EE 123 - Fundamentals of Electric Circuits II |
| x - Humanities elective |

Color Codes

- GREEN – Programmatic courses
- BLUE – Specifically required courses
- YELLOW – General education electives

# Step 1: Identify your disciplinary capstone

| | |
|---|---|
| **Senior Year - Fall** | |
| EE 331 - Digital System Design with HDL | |
| ENGR 465 - Capstone Project | CAPSTONE |
| x - Technical elective * | |
| x - Social Science elective | |
| | |
| **Senior Year - Winter** | |
| EE 430 - Linear Systems and Digital Signal Processing | |
| EE 432 - Advanced Digital System Design with HDL | |
| ENGR 465 - Capstone Project | CAPSTONE |
| x - Humanities elective | |
| | |
| **Senior Year - Spring** | |
| EE 401 - Communication Systems | |
| ENGR 465 - Capstone Project | CAPSTONE |
| x - Social Science elective | |
| x - Elective | |

# Reflection

**Step 1: Capstone Experience(s)**

*How do your students currently exhibit each learning outcome **within the capstone**? If these aren't clearly exhibited in student work associated w*

| **Outcome:** | **Select the statement that best de** |
|---|---|
| **Communication (Written)**: How do your students communicate in writing? | |
| **Communication (Oral)**: How do your students communicate in oral presentation(s)? | |
| **Teamwork**: How do students work in teams? | |
| **Inquiry & Analysis**: How do students use evidence to support conclusions or decisions? | |
| **Diverse Perspectives**: How do students take the perspectives of others into account (e.g. in interacting with clients, those with different backgrounds, etc.) | |
| **Ethical Reasoning**: How do students take ethical considerations into account? | |
| **Quantitative Literacy**: How do students interpret, use, and communicate quantitative data? | |

# Step 2: Identify Program-Integrated Courses

| | |
|---|---|
| **Junior Year - Winter** | |
| EE 323 - Electronics II | |
| EE 333 - Microcontroller Engineering | Program Integrated Communication (Written) |
| ENGR 267 - Engineering Programming | |
| **Junior Year - Spring** | |
| EE 325 - Electronics III | Program Integrated Communication (Oral), Teamwork |
| EE 335 - Advanced Microcontroller Engineering | Program Integrated Inquiry & Analysis/Quantitative Literacy |
| x - Technical elective * | |
| **Junior Year - Summer** | |
| SPE 321 - Small Group and Team Communication | |
| x - Writing Elective | |
| x - Technical elective * | |

# Step 3: Identify Program-Integrated Foundational Ethics

| *Color code the map in this column as follows:* | | | *Indicate Essential Studies Requirements (using drop-down menu, Indicate 2* |
|---|---|---|---|
| GREEN – Programmatic courses | | | |
| BLUE – Specifically required courses | | | |
| YELLOW – General education electives | | | |
| ESSENTIAL STUDIES WORKING DRAFT | | | |
| **Freshman Year - Fall** | | | |
| ENGR 111 | 2 | MMET Orientation | Foundation Ethical Reasoning |
| MATH 111 | 4 | College Algebra | |
| WRI 121 | 3 | English Composition | |
| X | 3 | Humanities/Social Science Elective | |
| X | 3 | Humanities/Social Science Elective | |

# Step 4: Identify Foundation and Essential Practice Requirements met

**Freshman Year - Fall**

| | |
|---|---|
| WRI 121 - English Composition | **Communication - Foundation - WRI 121** |
| MATH 111 - College Algebra | |
| x - Humanities elective | |
| x - Social Science elective | |

**Freshman Year - Winter**

| | |
|---|---|
| WRI 122 - Argumentative Writing | **Communication - Foundation - WRI 122** |
| MATH 112 - Trigonometry | |
| EE 121 - Fundamentals of Electric Circuits I | |
| x - Social Science elective | |

**Freshman Year - Spring**

| | |
|---|---|
| SPE 111 - Public Speaking | **Communication - Foundation - SPE111** |
| MATH 251 - Differential Calculus | |
| EE 123 - Fundamentals of Electric Circuits II | |
| x - Humanities elective | |

**Sophomore Year - Fall**

| | |
|---|---|
| WRI 227 - Technical Report Writing | **Communication - Essential Practice** |

**FOUNDATION**

| Communication | Inquiry and Analysis | | | Ethical Reasoning | Teamwork | Quantitat |
|---|---|---|---|---|---|---|
| | Humanities Inquiry | Social Sciences Inquiry | Natural Sciences Inquiry | | | |
| | | | | | SPE 321 (will be SPE 221) | MATH 24 |
| SPE 111 | HUM 105 | PSY 201 | BIO 101 | BUS 226 | Small Group and Team | Introduct |
| Public Speaking | Everyone's a Critic: Text, Images, Games | Psychology | Introduction to Cell Biology | Business Law | Communication | Statistics |
| | HUM 125 | | | HUM 125 | | |
| WRI 121 | Introduction to Technology, Society and | PSY 202 | BIO 111 | Introduction to Technology, Society and | | MATH 36 |
| Argumentative Writing | Values | Psychology | Introduction to Environmental Science | Values | | Statistica |
| | | | CHE 101/104 | | | |
| WRI 122 | HUM 147 | SOC 204 | Introduction to General Chemistry with | PHIL 105 | | |
| English Composition | Western Civilization in the Classical Age | Introduction to Sociology | Lab | Introduction to Ethics | | |
| | HUM 148 | SOC 225 | CHE 201/204 | X | | |
| | Western Civilization in the Medieval Age | Medical Sociology | General Chemistry I with Lab | Program-integrated option | | |
| | HUM 149 | ANTH X | CHE 221 | | | |
| | Western Civilization in the Modern Age | | General Chemistry I | | | |
| | HUM 245 | HIST X | PHY 221 | | | |
| | Digital Diversity | | General Physics with Calculus | | | |
| | LIT 253 | | | | | |
| | 19th Century American Literaure | | | | | |
| | LIT 254 | | | | | |
| | 20th Century Literature | | | | | |
| | LIT 255 | | | | | |
| | Contemporary American Literature | | | | | |
| | PHIL 105 | | | | | |
| | Introduction to Ethics | | | | | |
| | PHIL 205 | | | | | |
| | Introduction to Logic | | | | | |

**ESSENTIAL PRACTICE**

| Communication | Inquiry and Analysis | | Ethical Reasoning | Quantitative Literacy |
|---|---|---|---|---|
| | Humanities Inquiry | Science Inquiry | | |
| WRI 214 | COM 325 | PSY 321 | PHIL 305 | ECO 201 |
| Business Correspondence | Gender and Communication | Theories of Personality I | Medical Ethics | Principles of Economics, Micro |
| WRI 227 | HUM 335 | PSY 322 | PHIL 325 | ECO 202 |
| Technical Report Writing | Video Game Studies | Theories of Personality II | Environmental Ethics | Principles of Economics, Macro |
| WRI 327 | LIT 305 | PSY 330 | PHIL 331 | BUS 331 |
| Advanced Technical Writing | American Nature Writing | Social Psychology I | Ethics in the Professions | Personal Finance |

Intructions | Curriculum Mapping | Reflection Questions | **Draft Course Lists** | ESLO Definitions | Sheet3

| Step 4. Foundation and Essential Practice Requirements Already Met | | |
|---|---|---|
| | | |
| **Foundation Requirements:** | | **Indicate requirements already** |
| | Communication - Foundation - WRI 121 | Met |
| | Communication - Foundation - WRI 122 | Met |
| | Communication - Foundation - SPE 111 | Met |
| | Humanities Inquiry - Foundation | |
| | Social Sciences Inquiry - Foundation | |
| | Natural Sciences Inquiry - Foundation | Met |
| | Ethical Reasoning - Foundation | Met |
| | Teamwork - Foundation - SPE 321 | Met |
| | Quantitative Literacy - Foundation *(MATH 243 or MATH 361)* | Met |
| | Diverse Perspectives - Foundation | |
| **Essential Practice Requirements:** | | |
| | Communication - Essential Practice | Met |
| | Humanities Inquiry - Essential Practice | |
| | Sciences Inquiry - Essential Practice | |
| | Ethical Reasoning - Essential Practice | Met |
| | Quantitative Literacy - Essential Practice | Met |

# Step 5: Insert Remaining Essential Studies Requirements

**Freshman Year - Fall**

WRI 121 - English Composition
MATH 111 - College Algebra
(Open Slot)
(Open Slot)

**Freshman Year - Winter**

WRI 122 - Argumentative Writing
MATH 112 - Trigonometry
EE 121 - Fundamentals of Electric Circuits I
(Open Slot)

**Freshman Year - Spring**

SPE 111 - Public Speaking
MATH 251 - Differential Calculus
EE 123 - Fundamentals of Electric Circuits II
(Open Slot)

# Insert Unmet Foundation Requirements

**Freshman Year - Fall**

| |
|---|
| WRI 121 - English Composition |
| MATH 111 - College Algebra |
| Diverse Perspectives – Foundation Elective |
| Humanities Inquiry – Foundation Elective |

**Freshman Year - Winter**

| |
|---|
| WRI 122 - Argumentative Writing |
| MATH 112 - Trigonometry |
| EE 121 - Fundamentals of Electric Circuits I |
| Social Sciences Inquiry – Foundation Elective |

**Freshman Year - Spring**

| |
|---|
| SPE 111 - Public Speaking |
| MATH 251 - Differential Calculus |
| EE 123 - Fundamentals of Electric Circuits II |
| Ethical Reasoning – Foundation Elective |

# Insert the Synthesis Experience

**Junior Year - Winter**

| | |
|---|---|
| EE 323 - Electronics II | |
| EE 333 - Microcontroller Engineering | Program Integrated Communication (Written) |
| ENGR 267 - Engineering Programming | |

**Junior Year - Spring**

| | |
|---|---|
| EE 325 - Electronics III | Program Integrated Communication (Oral), Teamwork |
| EE 335 - Advanced Microcontroller Engineering | Program Integrated Inquiry & Analysis/Quantitative Literacy |
| x - Technical elective * | |

**Junior Year - Summer**

| | |
|---|---|
| SPE 321 - Small Group and Team Communication | **Teamwork - Foundation** |
| Essential Studies Synthesis Experience (ESSE) | |
| x - Technical elective * | |

# Insert Unmet Essential Practice (15 credits)

| | |
|---|---|
| **Junior Year - Summer** | |
| SPE 321 - Small Group and Team Communication | **Teamwork - Foundation** |
| Essential Studies Synthesis Experience | |
| x - Technical elective * | |
| | |
| **Senior Year - Fall** | |
| EE 331 - Digital System Design with HDL | |
| ENGR 465 - Capstone Project | CAPSTONE |
| x - Technical elective * | |
| Essential Practice | |
| | |
| **Senior Year - Winter** | |
| EE 430 - Linear Systems and Digital Signal Processing | |
| EE 432 - Advanced Digital System Design with HDL | |
| ENGR 465 - Capstone Project | CAPSTONE |
| Essential Practice | |
| | |
| **Senior Year - Spring** | |
| EE 401 - Communication Systems | Program-Integrated Ethical Reasoning, PI Diverse Perspectives |

# We Want Your Input

| **Step 5. Global Reflection** | |
|---|---|
| Are there courses that you might expect or hope to count towards Essential Studies requirements that don't show up on the current lists (these may be areas to further explore growing lists)? | |
| Are there opportunties for efficiencies that aren't realized here, that you'd like to investigate further? | |
| Do you have any other concerns, thoughts or input on the Essential Studies model, your draft curriculum map, or the mapping process? | |

# Submit

**December 2016**

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |

## Appendix I

## Essential Studies Course Choices in Draft Curriculum Maps

| | FOUNDATION | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Communication | Communication | Communication | Inquiry & Analysis Humanities | Inquiry & Analysis Natural Sciences | Inquiry & Analysis Social Sciences | Ethical Reasoning | Teamwork | Quantitative Literacy | Diverse Perspectives |
| Applied Mathematics B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | ELECTIVE | ELECTIVE | SPE 221 | MATH 361 | ELECTIVE |
| Applied Psychology B.S. (K,O, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | PSY 201 | PSY 203 | SPE 221 | MATH 243/361 | PSY 203 |
| Biology-Health Sciences B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | BIO 211 | ELECTIVE | BIO 109 | SPE 221 | MATH 361 | ELECTIVE |
| Civil Engineering B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 221 | ELECTIVE | ENGR 101 | SPE 221 | MATH 361 | ELECTIVE |
| Communication Studies B.S. (K) | WRI 121 | WRI 122 | SPE 111 | | ELECTIVE | PSY 201 | COM 255 | SPE 221 | MATH ELECTIVE | COM 205 |
| Computer Engineering Technology B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | ELECTIVE | CST 120 | SPE 221 | MATH 361 | ELECTIVE |
| Dental Hygiene B.S. (C, K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | SOC 204 | DH 275 | SPE 221 | MATH 243 | PSY ELECTIVE |
| Dental Hygiene B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY ELECTIVE | DH 275 | SPE 221 | MATH 243 | SOC 204 |
| Diagnostic Medical Sonography B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | ELECTIVE | | SPE 221 | | PSY 203 |
| Diagnostic Medical Sonography B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY 201/202 | | SPE 221 | | ELECTIVE |
| Echocardiography B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY ELECTIVE | ECHO 225 | SPE 221 | MATH 111/112 | MIT 103 |
| Echocardiography B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY 201/202 | | SPE 221 | | |
| Electrical Engineering B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 201/204 | ELECTIVE | ENGR 101 | SPE 221 | | ELECTIVE |
| Electrical Engineering B.S. Wilsonville (W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 201/204 | ELECTIVE | | SPE 221 | | ELECTIVE |
| Electronics Engineering Technology B.S. (W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | ELECTIVE | ELECTIVE | SPE 221 | STAT ELECTIVE | ELECTIVE |
| Embedded Systems Engineering Technology B.S. (K, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | PSY 201 | CST 120 | SPE 221 | MATH 465 | ELECTIVE |
| Emergency Medical Services B.S. (W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | | PSY 201 | EMS 115 | SPE 221 | MATH 361 | ELECTIVE |
| Environmental Sciences B.S. (K) | WRI 121 | WRI 122 | SPE 111 | | CHE 221 | | ENV 111/ENV 275 | SPE 221 | MATH 361 | |
| Geomatics B.S. Geographic Information System Option (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | ELECTIVE | GME 161 | SPE 221 | MATH 361 | ELECTIVE |
| Geomatics B.S. Surveying Option (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | ELECTIVE | GME 161 | SPE 221 | MATH 361 | ELECTIVE |
| Health Care Management B.S. Administration Option (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | | MIS 255 | SPE 221 | MATH 361 | COM 205 |
| Health Care Management B.S. Clinical Option (K, O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | ECO 202 | MIS 255 | SPE 221 | MATH 361 | COM 205 |
| Health Care Management B.S. Radiologic Science Management Option (K, O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | ECO 202 | MIS 255 | SPE 221 | MATH 361 | PSY 203 |
| Health Informatics B.S. New (K, O, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | SOC 225 | MIS 255 | SPE 221 | MATH 361 | ELECTIVE |
| Health Informatics B.S. Old (K, O, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | SOC 225 | MIS 255 | SPE 221 | MATH 361 | ELECTIVE |
| Information Technology B.S. (K, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | ECO 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Management B.S. Accounting Option (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | PSY 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Management B.S. Entrepreneurship/Small Business Management (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | PSY 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Management B.S. Marketing Option (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | PSY 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Manufacturing Engineering Technology B.S. (B, K, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | ELECTIVE | ENGR 111 | SPE 221 | MATH 361 | ELECTIVE |
| Mechanical Engineering B.S. (B, K) | WRI 121 | WRI 122 | SPE 111 | HUM 125 | CHE 201/204 | ELECTIVE | ENGR 111 | SPE 221 | MATH 361/465 | ELECTIVE |
| Mechanical Engineering Technology B.S. (B, K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/201 | ELECTIVE | ENGR 111 | SPE 221 | MATH 361 | ELECTIVE |
| Medical Laboratory Science B.S. (W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | BIO 211/231 | ELECTIVE | MLS 100 | SPE 221 | MATH 243/361 | ELECTIVE |
| Nuclear Medicine Technology B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PSY ELECTIVE | ELECTIVE | | SPE 221 | | ELECTIVE |
| Operations Management B.S. (K, W, O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | ECO 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Population Health Management B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | LAB SCIENCE ELECTIVE | SOC 204 | SOC 204 | SPE 221 | MATH 243/361 | SOC 201 |
| Radiologic Science B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY 201/202 | | SPE 221 | | ELECTIVE |
| Radiologic Science B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY 201/202 | RDSC 272 | SPE 221 | | ELECTIVE |
| Renewable Energy Engineering B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 201/204 | ELECTIVE | ENGR 101 | SPE 221 | MATH 361/465 | ELECTIVE |
| Renewable Energy Engineering B.S. Wilsonville (W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 201/204 | ELECTIVE | ENGR 101 | SPE 221 | MATH 361/465 | ELECTIVE |
| Respiratory Care B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | ELECTIVE | RCP 100 | SPE 221 | MATH 243 | ELECTIVE |
| Respiratory Care B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | ELECTIVE | RCP 100 | SPE 221 | MATH 243 | ELECTIVE |
| Software Engineering Technology B.S. (K, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | PHY 221 | PSY 201 | | SPE 221 | | ELECTIVE |
| Technology and Management B.A.S. (K, O, W) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | ELECTIVE | ECO 201 | BUS 226 | SPE 221 | MATH 361 | ELECTIVE |
| Vascular Technology B.S. (K) | WRI 121 | WRI 122 | SPE 111 | ELECTIVE | CHE 101/104 | PSY 201/202 | VAS 225 | SPE 221 | | ELECTIVE |
| Vascular Technology B.S. Degree Completion (O) | WRI 121 | WRI 122 | SPE 111 | | CHE 101/104 | PSY 201/202 | | SPE 221 | | |

| | |
|---|---|
| B | Boeing |
| C | Chemeketa |
| K | Klamath Falls |
| O | Online |
| W | Wilsonville |
| | approved by ESLO committee |
| | submitted to ESLO committee; not yet approv |
| | not yet submitted to ESLO committee |
| | need further discussion |
| | not specified in curriculum map |

| | ESSENTIAL PRACTICE | | | | | |
|---|---|---|---|---|---|---|
| | Communication | Inquiry & Analysis Humanities | Inquiry & Analysis Sciences | Ethical Reasoning | Quantitative Literacy | Diverse Perspectives |
| Applied Mathematics B.S. (K) | | HUM ELECTIVE | PHY 222 | | MATH 251 | HUM ELECTIVE |
| Applied Psychology B.S. (K,O, W) | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE |
| Biology-Health Sciences B.S. (K) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 305 | | ELECTIVE |
| Civil Engineering B.S. (K) | ELECTIVE | ANTH 335 | PHY/CHE ELECTIVE | ELECTIVE | ELECTIVE | ANTH 452 |
| Communication Studies B.S. (K) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE |
| Computer Engineering Technology B.S. (K) | WRI 227 | ELECTIVE | | PHIL 331 | MGT 345 | ANTH 452/HIST 452 |
| Dental Hygiene B.S. (C, K) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE | ELECTIVE |
| Dental Hygiene B.S. Degree Completion (O) | WRI 227/123 | ELECTIVE | PSY ELECTIVE | | | PSY ELECTIVE |
| Diagnostic Medical Sonography B.S. (K) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | ELECTIVE |
| Diagnostic Medical Sonography B.S. Degree Completion (O) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | ELECTIVE |
| Echocardiography B.S. (K) | WRI 227 | | ELECTIVE | ELECTIVE | | |
| Echocardiography B.S. Degree Completion (O) | WRI 227 | | | | | |
| Electrical Engineering B.S. (K) | WRI 227 | ELECTIVE | | ELECTIVE | MGT 345 | ELECTIVE |
| Electrical Engineering B.S. Wilsonville (W) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | MGT 345 | ELECTIVE |
| Electronics Engineering Technology B.S. (W) | WRI 227 | | | | | |
| Embedded Systems Engineering Technology B.S. (K, W) | WRI 227 | ELECTIVE | ELECTIVE | | MGT 345 | ANTH 452/HIST 452 |
| Emergency Medical Services B.S. (W) | WRI 227 | | ELECTIVE | PHIL 331 | ECO 202 | |
| Environmental Sciences B.S. (K) | WRI 227 | | | | ECO 201 | |
| Geomatics B.S. Geographic Information System Option (K) | WRI 227 | | | | MGT 345 | |
| Geomatics B.S. Surveying Option (K) | WRI 227 | | | | MGT 345 | |
| Health Care Management B.S. Administration Option (K) | WRI 227 | ELECTIVE | PSY 336 | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Health Care Management B.S. Clinical Option (K, O) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Health Care Management B.S. Radiologic Science Management Option (K, O) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 342 | ECO 202 | ANTH 452/HIST 452 |
| Health Informatics B.S. New (K, O, W) | WRI 227 | ELECTIVE | | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Health Informatics B.S. Old (K, O, W) | WRI 227 | ELECTIVE | | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Information Technology B.S. (K, W) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331/342 | ECO 202 | ANTH 452/HIST 452 |
| Management B.S. Accounting Option (K) | WRI 227 | | | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Management B.S. Entrepreneurship/Small Business Management (K) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331/342 | ECO 201 | ANTH 452/HIST 452 |
| Management B.S. Marketing Option (K) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331/342 | ECO 201 | ELECTIVE |
| Manufacturing Engineering Technology B.S. (B, K, W) | WRI 227 | ELECTIVE | ELECTIVE | | MGT 345 | ANTH 452/HIST 452 |
| Mechanical Engineering B.S. (B, K) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331 | | ELECTIVE |
| Mechanical Engineering Technology B.S. (B, K) | | | | | MGT 345 | |
| Medical Laboratory Science B.S. (W) | WRI ELECTIVE | ELECTIVE | ELECTIVE | PHIL 331/305 | BUS ELECTIVE | ELECTIVE |
| Nuclear Medicine Technology B.S. (K) | WRI 227 | | | | | |
| Operations Management B.S. (K, W, O) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331 | ECO 202 | ANTH 452/HIST 452/PSCI 326 |
| Population Health Management B.S. (K) | WRI 227 | | | PHIL 335 | | ANTH 452/HIST 452/ELECTIVE |
| Radiologic Science B.S. (K) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | ELECTIVE |
| Radiologic Science B.S. Degree Completion (O) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | ELECTIVE |
| Renewable Energy Engineering B.S. (K) | WRI 227 | | CHE260 | ELECTIVE | ECO 201/202 | HIST 356/357 |
| Renewable Energy Engineering B.S. Wilsonville (W) | WRI 227 | | CHE260 | ELECTIVE | ECO 201/202 | HIST 356/357 |
| Respiratory Care B.S. (K) | ELECTIVE | ELECTIVE | | RCP 100 | ELECTIVE | ELECTIVE |
| Respiratory Care B.S. Degree Completion (O) | ELECTIVE | ELECTIVE | BIO 105 | | ELECTIVE | ELECTIVE |
| Software Engineering Technology B.S. (K, W) | WRI 227 | ELECTIVE | ELECTIVE | | MGT 345 | ANTH 452/HIST 452 |
| Technology and Management B.A.S. (K, O, W) | WRI 227 | ELECTIVE | ELECTIVE | PHIL 331/342 | ECO 202 | ANTH 452/HIST 452 |
| Vascular Technology B.S. (K) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | ELECTIVE |
| Vascular Technology B.S. Degree Completion (O) | WRI 227 | ELECTIVE | ELECTIVE | ELECTIVE | | |

| | |
|---|---|
| B | Boeing |
| C | Chemeketa |
| K | Klamath Falls |
| O | Online |
| W | Wilsonville |
| | approved by ESLO committee |
| | submitted to ESLO committee; not yet approv |
| | not yet submitted to ESLO committee |
| | need further discussion |
| | not specified in curriculum map |

**Appendix J**
**Parameters for Transfer Impact Study**

(reviewed by GEAC November 2016)

## I. Background and Significance

As the General Education Review Task Force began work on the Essential Studies model, minimizing impact on transfer was a top priority. As Oregon Tech moves to implementation of this model, the Articulation and Transfer subcommittee has reviewed transfer policies and made recommendations to streamline the transfer process and again minimize the impact on transfer populations. Yet, there still remains unanswered questions about how transfer into the Essential Studies program will compare to Oregon Tech's current general education program. The purpose of this study is to identify the impact the new Essential Studies program will have on transfer students and to provide data to support decision making regarding the model, transfer policies and the implementation timeline. Specifically, there is a need to know what groups are impacted, and how large that impact might be. Based on the data collected from this study the General Education Advisory Council will be able to:

1. Accurately communicate the impact of the model on transfer to interested groups
2. Create transfer policies and/or make adjustments to the model to minimize impact on largest groups of transfer students
3. Develop advising materials for potential students
4. Plan for enrollment fluctuations specific to course and location

Using the Essential Studies program requirements and criteria, the Transfer and Articulation subcommittee will evaluate a random sample of student transcripts which have previously been evaluated by the Registrar under the current general education model. Number of credits accepted under each model will be compared to determine impact of the new model on transfer students. Data will be collected to identify Essential Studies requirements with poor transferability and those requirements that transfer in at a high rate. In addition, decisions made by general education department chairs on course equivalencies in the Essential Studies model through this study will be captured to begin building a transfer database. Finally, a typical transfer student will be used to make comparisons between Oregon Tech's current general education model, the Essential Studies model, and the general education programs of other public universities in Oregon.

## II. Research Design and Methods

This study will be conducted using incoming students in fall 2016. The population will be divided into three groups:

- True freshmen direct from high school (college credit accumulated while in H.S.)
- Low transfer credits (1– 90 transfer credits)—excluding true freshmen
- High transfer credits (over 90 transfer credits)—excluding post bacs

Post baccalaureate students will be extracted and studied separately to determine if this group has sufficiently fulfilled the Essential Studies requirements.

A stratified random sample of students will be selected from each of these groups by the Director of Institutional Research, ensuring proportionate representation from transfer institutions. Transcripts of these students will be evaluated as follows:

Phase I

An evaluation of thirty transcripts from each of the three groups will be conducted by department chairs from the Natural Sciences, Mathematics, Communication and Humanities/Social Sciences departments. Each chair will evaluate the transcripts relative to courses that would typically fall within their department and identify Essential Studies requirements fulfilled by these transfer courses. Data will be collected to identify Essential Studies requirements with poor transferability and those requirements that transfer in at a high rate. Questions in this process will be funneled to ESLO committees for consideration. Course equivalencies will be captured in a database.

Phase II

Members of the Articulation and Transfer subcommittee will review this work noting the effect of program requirements. In addition, this group will map a typical transfer student on the curricula of the other six public universities in Oregon.

## III. Reporting

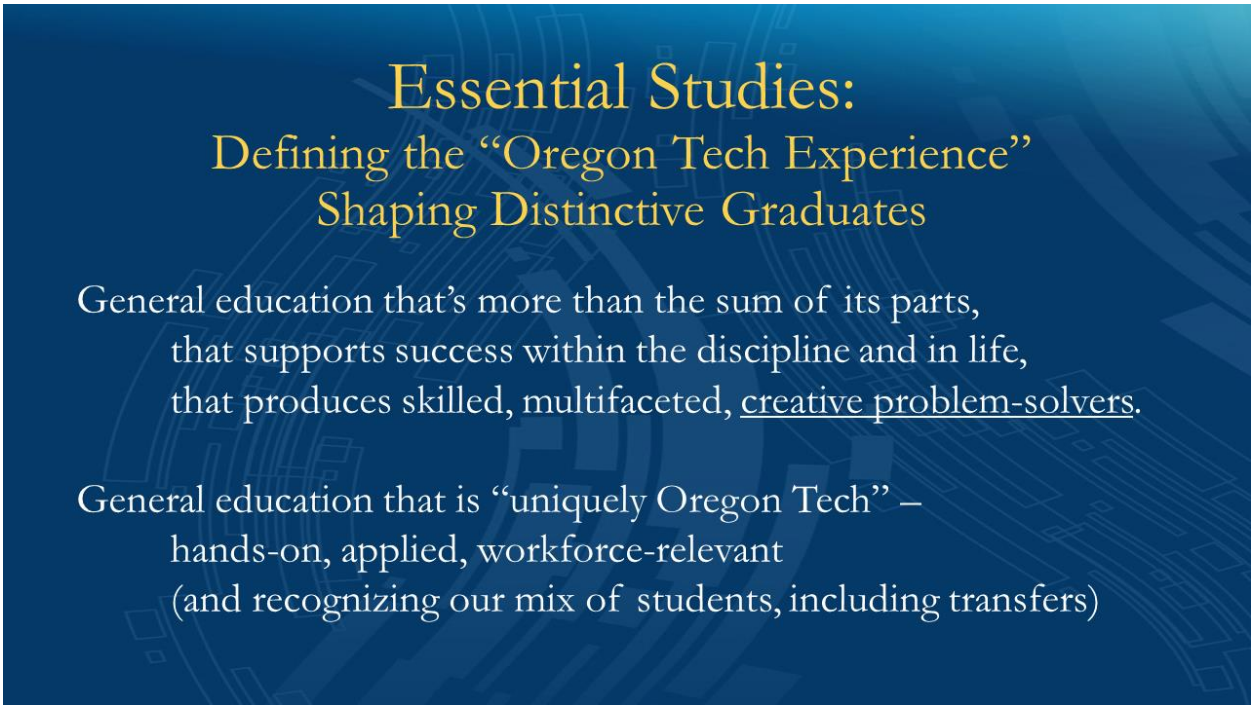
As a result of this study the Articulation and Transfer subcommittee will report the following information to support decision making by a variety of groups:

- Questions regarding course equivalencies as they relate to the Essential Studies model to be considered by ESLO committees and GEAC in making adjustments to criteria in the model or establishing transfer policies.
- Essential Studies requirements with poor transferability and those requirements that transfer in at a high rate for consideration by GEAC for possible adjustments to the model or transfer policies, development of advising materials for potential students, and to begin forecasting demand in the model.
- Initial database of course equivalencies to the Registrar to begin development of a transfer database for Essential Studies and recommendations for completing this work.
- The average impact of the Essential Studies program on transfer students in each of the three groups and the percentage each group represents in the total incoming class.
- A comparison of the typical transfer student at each of the seven public universities in Oregon.

The Articulation and Transfer subcommittee will also make recommendations about further study of post baccalaureate students' preparation to participate in the synthesis and capstone experiences in the Essential Studies program.

**Appendix K**
**Summary Report from Transfer Impact Study**

(presented to GEAC 1 June 2017)

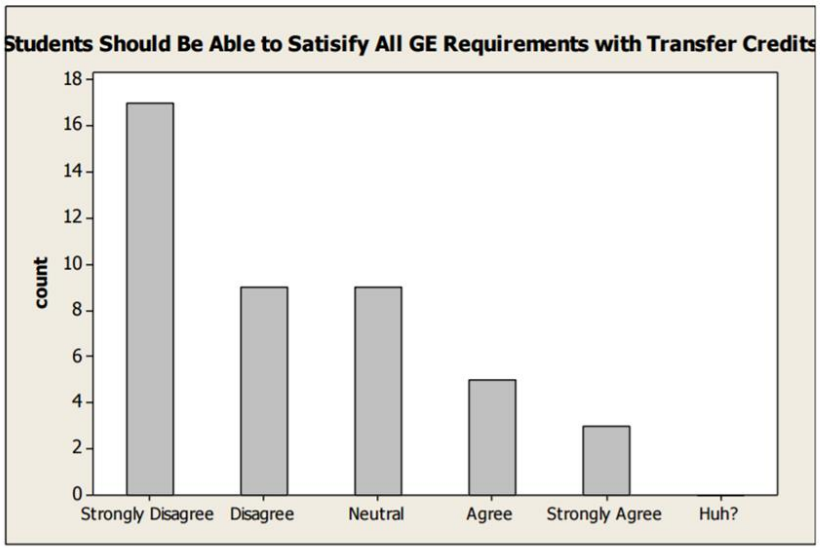
## Transfer Impacts

**Any** changes to any general education will have transfer impacts:
- Negative: extra credits/cost/time to degree
- Positive: enhanced educational experience (knowledge and skills), greater student success and workforce readiness, distinctive and marketable curriculum elements.

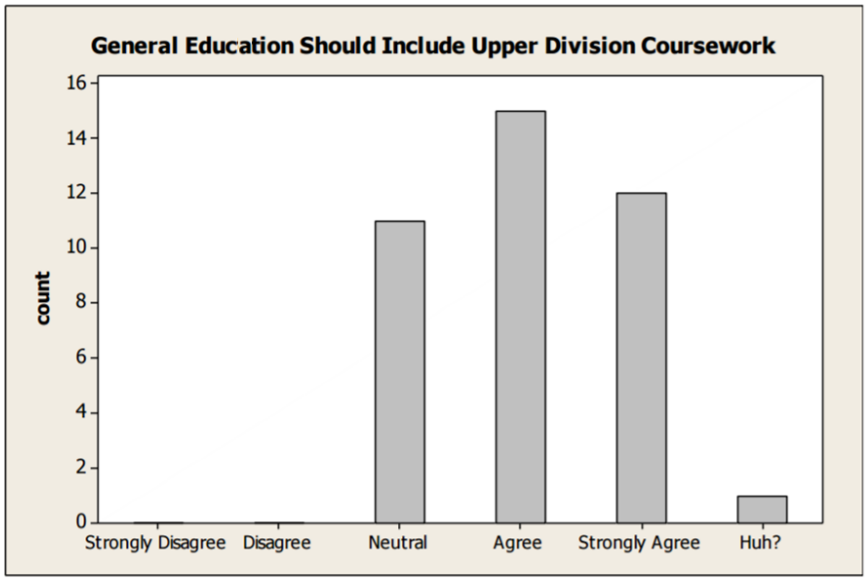
(This tension and tradeoff **already exists** between programs, too.)

Impacts should be identified, justified, and minimized – iterative testing and refinement of Essential Studies.

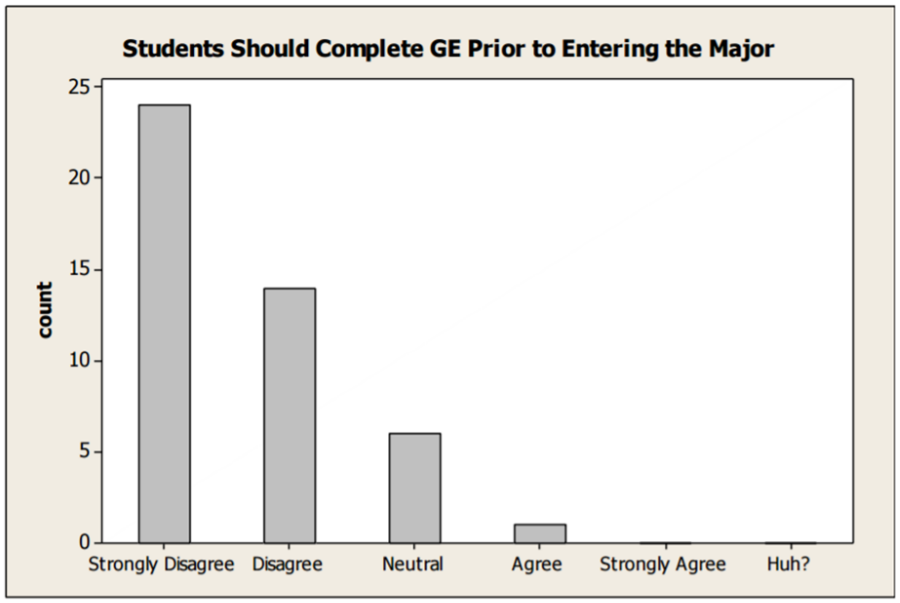
Transfer was **in mind** from the beginning.




Fall 2013 GERTF Faculty Forum survey results




Fall 2013 GERTF Faculty Forum survey results




Fall 2013 GERTF Faculty Forum survey results

# Prior General Education Model

Pros: unusually large buckets makes transfer easy
Cons: poor alignment with student outcomes
(which are also workforce/employer needs)
minimal vertical development,
little integration with discipline.

36 M/S or 45 M/S/SS
(typically integrated with major requirements)

Humanities

Communication*
*WRI111, 122, SPE111, 321

Math/Science**
**1 lab science

Social Sciences

# Essential Studies Model

More intentional (and smaller) bins,
aligned with outcomes,
reinforced in courses in the major,
integrated within & across disciplines.

ESSE

Disciplinary
Capstone

Synthesis

Program-
Integrated
Practice

Essential
Practice

Foundation

Communication*
*WRI121, 122, SPE111

Inquiry & Analysis**
**Hum, Soc. Sci, Nat. Sci

Ethical
Reasoning

Teamwork

Quant.
Literacy

Diverse
Persp.

## Parameters for Transfer Study

Fall '16: Vetted by stakeholders (GEAC, Transfer Team, admin)

Stratified sampling: 3 groups of 30 each, Fall '16 entering students:

- Group A (direct from HS, <36 credits)
- Group B (transfer, <90 credits)
- Group C (transfer, >90 credits)

(Excluded: Postbacs, N=53 – separate policy)

90 Student ID's pulled by IR; 2048 transfer courses.
Existing degree audits tell us how these courses apply in the major.

## Populations of Incoming Students, Fall 2016

~ 2,225 "new students" in all categories
(HS dual credit, non-admits, grad students, etc.)
~1040 new undergraduates:
~387 first-time freshmen:
~230 have no transfer credits (22% of new UG)
~157 have 1-36 transfer credits (**Group A**, 15% of new UG)
~600 New UG Transfers:
~209 have <90 credits (**Group B,** 20% of new UG)
~381 have 90+ credits (**Group C**, 37% of new UG)
~53 postbacs (separate policy, 5% of new UG)

## Process for Transfer Study

Transfer study: How do transfer courses apply under Essential Studies (and how is that different from currently)?

To answer this:

- Every program created a draft **curriculum map** (first step towards CPC submission); ~2-4 hours/program.
- Gen ed department chairs **evaluated transfer courses** under new criteria (helps us develop clear protocols): 4 chairs, ~5-15+ hours each.
- Assembled, collated, and **analyzed data** (SA, NS, SB): 60+ hours.

## Where are we not applying credits now?

6351.5 credits come in to Oregon Tech; 3091.75 are applied (48.7%)

Of the 3200+ credits that not applied:

- **No applicable category** in degree map: 1702.2 credits (Vocational: 501 credits; PE: 90 credits)
- Matches category in model, but **block is full**: 680.5 credits
- **Remedial**: 384+ credits (not counted above)
- **Fractional credit loss**: 364.5 credits
- Below the level required by a program: 230.5 credits
- Beyond the level required by a program: 165 credits
- Student has credit for course twice: 82 credits

## Group A ("Direct from HS")

**Locations/Modes**
- Klamath Falls (28)
- Wilsonville (2)

**Common Majors**
- Software Engineering Technology (6)
- Pre-Medical Imaging (5)
- Biology-Health Sciences (4)
- Mechanical Engineering (4)
- Pre-Dental Hygiene (2)
- Pre-Nursing (4) – excluded

**Common Transfer Institutions**
- Klamath CC (4)
- Advanced Placement (4)
- Southern Oregon U (3)
- Rogue CC (2)
- Portland State U (2)
- Portland CC (2)
- Eastern Oregon U (2)
- Chemeketa CC (2)

## Group A ("Direct from HS")

Average student brings in 16.5 credits.
Under old general education model, 8.7 credits (52.5%) applied:

| | | |
|---|---|---|
| Humanities | 1.3 credits/9 | (0.4 courses/3) |
| Communication (Lower-Division) | 1.2 credits/9 | (0.4 courses/3) |
| Communication (Upper-Division) | 0.0 credits/9 | (0.0 courses/3) |
| Social Sciences | 1.5 credits/12 | (0.5 courses/4) |
| Math/Science | 4.1+ credits | (1.0 courses+) |

## Group A ("Direct from HS")

Average student brings in 16.5 credits.
Under Essential Studies, 7.0 credits (42.1%) applied:

| | Foundation | | Practicing |
|---|---|---|---|
| Communication | 1.2 credits/9 | (0.4 courses/3) | - |
| Inquiry & Analysis | 1.0 credits/10 | (0.3 courses/3) | - |
| Quantitative Literacy | 0.3 credits/4 | (0.1 courses/1) | - |
| Diverse Perspectives | 0.1 credits/3 | (0.0 courses/1) | - |
| Teamwork | - | | N/A |
| Ethical Reasoning | N/A | | - |

## Group A ("Direct from HS")

Where are losses in transition?
(43 credits total; 1.7 credits/student from Group A)

- Fractional Credit Loss (2 credits)
  This was mostly "hidden" fractional loss under old model, too.
- Carving up Hum block (18 credits)
- Carving up SS block (17 credits)
- 2nd year language Credits (6 credits) –
  can apply in Hum Block currently –
  matter for GEAC & ESLO cmtes to consider

## Group B ("Low-Credit Transfers")

**Locations/Modes**
- Klamath (20)
- Wilsonville (4)
- Online (3)

**Common Majors**
- Dental Hygiene (4)
- Mechanical Engineering (3)
- Pre-Medical Imaging (4)
- Pre-Nursing (2) - excluded

**Common Transfer Institutions**
- Portland CC (4)
- Klamath CC (4)
- Oregon State U (3)
- Mt. Hood CC (3)
- Chemeketa CC (3)
- Rogue CC (2)
- Linn Benton CC (2)
- Eastern Oregon U (2)
- Clackamas CC (2)
- Central Oregon CC (2)

## Takeaways from Group A

HS students seem to be taking college credits opportunistically.

GEAC and ESLO committees should consider:
- How 2nd year language applies;
- How AP courses (and IB) can apply.

## Group B ("Low-Credit Transfers")

Average student brings in 61.5 credits.

Under old general education model, 33.5 (54.5%) applied:

| | | |
|---|---|---|
| Humanities | 2.2 credits/9 | (0.7 courses/3) |
| Communication (Lower-Division) | 6.7 credits/9 | (2.2 courses/3) |
| Communication (Upper-Division) | 1.0 credits/9 | (0.3 courses/3) |
| Social Sciences | 5.5 credits/12 | (1.8 courses/4) |
| Math/Science | 8.1+ credits | (2.0 courses+) |

## Group B ("Low-Credit Transfers")

Average student brings in 61.5 credits.
Under Essential Studies, 30.0 (48.9%) applied:

| | Foundation | | Practicing |
|---|---|---|---|
| Communication | 6.7 credits/9 | (2.2 courses/3) | 0.7 credits/3 (0.2 courses/1) |
| Inquiry & Analysis | 4.5 credits/10 | (1.5 courses/3) | - |
| Quantitative Literacy | 0.4 credits/4 | (0.1 courses/1) | 0.6 credits/3 (0.2 courses/1) |
| Diverse Perspectives | 0.6 credits/3 | (0.2 courses/1) | - |
| Teamwork | 0.2 credits/3 | (0.1 courses/1) | N/A |
| Ethical Reasoning | N/A | | - |

## Group B ("Low-Credit Transfers")

Where are losses in transition?
(84 credits total; 3.1 credits/student from Group B)

- Fractional Credit Loss (21 credits)
- Carving up Hum block (14 credits)
- Carving up SS block (41 credits)
- Carving up other blocks (8 credits)

## Takeaways from Group B

Students are being generally strategic about CC courses;
this group is the most representative of the breadth of our majors.

We should consider:

- How to communicate transfer policies to CC students
  (more detailed transfer website and materials, esp.
  targeted for Wilsonville, Online, Seattle, Chemeketa)
- Relationships with community college advisors/influencers:
  "Thinking about Oregon Tech? Consider these courses…"
  (should align with **Interstate Passport**)
- First-year "foundational curriculum" may be mandated by HB2998.

## Group C ("High-Credit Transfers")

**Locations/Modes**

- Klamath (13)
- Wilsonville (10)
- Online (6)
- Chemeketa (1)

**Common Majors**

- Mechanical Engineering (5)
- Radiologic Science (3)
- Medical Laboratory Science (3)
- Applied Psychology (3)
- Technology & Management B.A.S. (2)
- Dental Hygiene (2)
- Health Informatics (2)
- Respiratory Care (2)

**Common Transfer Institutions**

- Oregon State U (6)
- Portland CC (5)
- Lane CC (4)
- Klamath CC (4)
- Portland State U (3)
- Mt Hood CC (3)
- Clackamas CC (3)
- Chemeketa CC (3)
- Western Oregon U (2)
- Treasure Valley CC (2)
- Rogue CC (2)
- Columbia Gorge CC (2)
- Central Oregon CC (2)

## Group C ("High-Credit Transfers")

Average student brings in 146.9 credits.

Under old general education model, 67.6 (46.0%) applied:

| | | |
|---|---|---|
| Humanities | 6.1 credits/9 | (2.0 courses/3) |
| Communication (Lower-Division) | 6.9 credits/9 | (0.8 courses/3) |
| Communication (Upper-Division) | 2.7 credits/9 | (0.9 courses/3) |
| Social Sciences | 8.4 credits/12 | (2.8 courses/4) |
| Math/Science | 12.4+ credits | |

## Group C ("High-Credit Transfers")

Average student brings in 146.9 credits.

Under Essential Studies, 60.2 (41.0%) applied:

| | Foundation | | Practicing | |
|---|---|---|---|---|
| Communication | 6.9 credits/9 | (0.8 courses/3) | 1.5 credits/3 | (0.5 courses/1) |
| Inquiry & Analysis | 7.3 credits/10 | (2.2 courses/3) | 0.8 credits/6 | (0.3 courses/2) |
| Quantitative Literacy | 1.3 credits/4 | (0.3 courses/1) | 1.3 credits/3 | (0.4 courses/1) |
| Diverse Perspectives | 1.8 credits/3 | (0.6 courses/1) | - | |
| Teamwork | 0.6 credits/3 | (0.2 courses/1) | N/A | |
| Ethical Reasoning | N/A | | - | |

## Group C ("Direct from HS," N=157)

Where are losses in transition?

(251 credits loss, 7.4 credits/student net loss from Group C)

- Fractional Credit Loss (58 credits)
- Carving up Hum block (69 credits)
- Carving up SS block (93 credits)
- Carving up other blocks (24 credits)
- 2nd Year Language (7 credits)

However: also **gain** of 37 credits – mainly from DP and QL slots.

## Takeaways from Group C

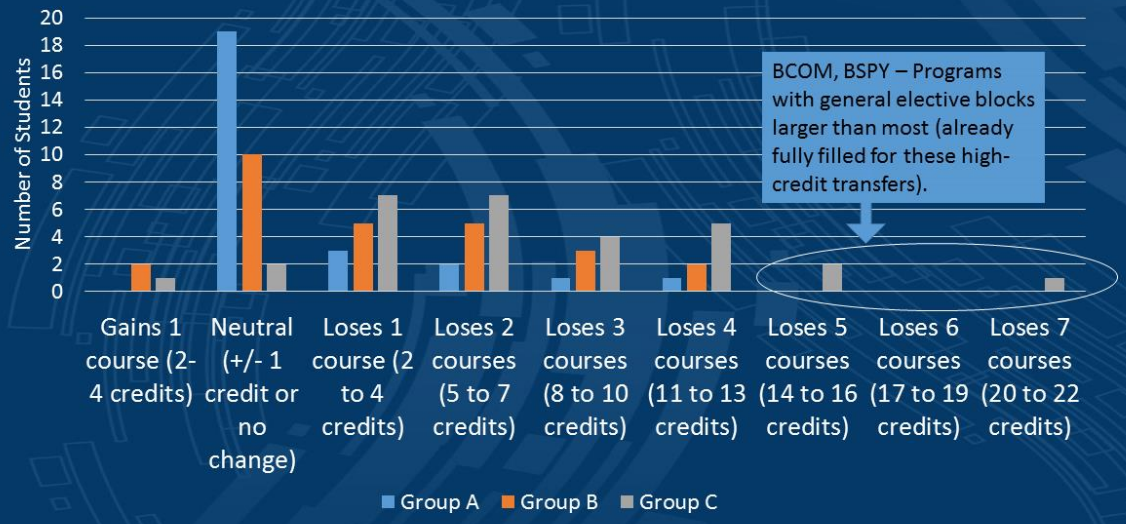
Degree of deliberate course selection here varies widely.
(e.g. lots of old credits, lots of discipline switches)

We should consider:

- What can we recognize from an Associate's Degree?
  (both an AAOT and a "regular" AS).
- Neighboring states' "transfer blocks" (CA, WA, HI)
- Year-long sequences (Essential Practice?)

Not included in this group, but: policy for post-bacs
(currently, gen ed not prescribed by program is waived)

## Impact by Individual Student



## Additional Opportunities

Curriculum drafts are not yet optimized.

Opportunities to move from prescribing a particular course, now that we have lists aligned with outcomes. Particularly:

- Comm – Essential Practice (moving away from just WRI227?)
- Diverse Perspectives (moving away from just Psych?)
- QL-Practice (multiple ways to get econ/finance)

Degree audits/transfer database:

- Many questions about how catalog is applied in DegreeWorks
- Prefix-based transfer categories miss some, and miscount others.

## Additional Opportunities

Transfer advising:

- Consistently reviewing transcripts with advocacy lens. (advising resources and support for each location/mode?)
- Giving students tools to self-advocate and take responsibility (which also educates about outcomes and empowers students!)
- Mandating student figure out transfer applicability sooner (first two terms in program?), rather than just before grad date.

## Conclusion

Essential Studies Model does what it set out to do – make general education more deliberate, focused, and aligned with outcomes. Where it has impacts, we can understand why, and those impacts support student success.

Still a number of opportunities:

- GEAC/ESLO policy questions:
  (languages, sequences, Associates, Post-Bacs)
  broad lens for applicability of courses, esp. in foundation.
- Curriculum maps (justify why a particular course)
- Degree audits/transfer database (updated in transition)
- Communication with prospective students and CCs.

## Some Next Steps

- Are there other questions we can/should answer with this data?
  (This is a rich and interesting data set!)
- Policy for GEAC and ESLO committees to consider.
- Move to second draft of curriculum maps
  (conversations beginning over summer).
- Follow-up discussions on technical implementation
  (DegreeWorks and transfer database) with registrar.
- Plan alignment with SEM and OAA activities for
  CC-relationship building (great alignment with HB2998!)

**Appendix L**
**Essential Studies Policy Recommendations**

**Part I: Transfer Policies (reviewed by GEAC 8 June 2017)**

(Drafted in response to questions raised during the transfer

- **Courses**: If a course transfers in to Oregon Tech as a course on an Essential Studies list, it will fulfill the same slot as that course in the Essential Studies model without the need for additional review.

- **Transfer Flowcharts**:

Department chairs from the departments most closely associated with each outcome area shall make the official determination as to whether a transfer course (that doesn't have a 1:1 correspondence with a course already on an Essential Studies list) meets the criteria for an Essential Studies block.

- Communication: CM, TW, and DP courses from disciplines associated with that department
- HSS: IA-HS, IA-SS, ER, and DP courses from disciplines associated with that department.*
- Applied Math: QL
- Natural Sciences: IA-NS

[Note: A practice for handling potential diverse perspectives courses that don't fall into traditional HSS or Comm course prefixes will need to be vetted with HSS and Comm chairs.]

In order to assist the registrar's office and department chairs in recognizing these courses, "flowcharts" are being developed by relevant ESLO faculty learning communities (particularly IA and DP) to help educate chairs, clearly state the assumptions being made and assist them in unambiguously recognize courses as qualifying for those blocks. (e.g. that a course can be considered for Essential Practice-Level because it has a Foundational-level prerequisite). [Note: Future work will expand these flowcharts to all outcome areas, vet them with department chairs and the registrar's office for reliability and ease of use, and make them available on Oregon Tech's transfer website.]

Recognizing that, in some cases, course syllabi may need to be consulted, but seeking to minimize the degree to which this is necessary, the goal for these flowcharts is to make determinations whenever possible based on readily available information (course number, title, description), and is in good faith and collegial recognition of the good work done by our faculty colleagues at other institutions.

While department chairs retain formal authority on course approvals, they are encouraged to seek out additional expertise from content area experts and ESLO faculty learning communities where needed (or, consistent with current practice, to delegate these determinations).

The Office of Academic Excellence will work with the registrar's office to coordinate annual conversations in which ESLO faculty learning communities can offer input on transfer determinations.

- **AAOT**: The "lower division general education" block defined for Interstate Passport shall also be the block deemed completed by students who transfer to Oregon Tech with the AAOT (Associate of Arts – Oregon Transfer Degree), unless those general education blocks are prescribed by the students' major.

  [Note: There may be need for further discussion surrounding the applicability of the Oregon Transfer Module; that discussion may also become more moot depending on the outcome of transfer-related legislation (HB2998). Additional discussions may also be warranted about non-AAOT Associate's Degrees and "transfer blocks" from neighboring states (CA, WA, HI).]

- **Policy for post-bacs**: Individuals seeking a bachelor's degree from Oregon Tech who have completed a bachelor's degree at another accredited institution shall be deemed to have completed all general education requirements not prescribed by the major, with the exception of the ESSE****, which is a distinctive hallmark of the Oregon Tech experience.

  [Note: As the ESSE continues to be better-defined and clarified, GEAC will revisit this recommendation.]

- **Transfer clause**: In recognition that transfer students are likely looking at the current curriculum map in making their course selection, transfer students who enter after Essential Studies during a period of 3***** years may use the previous curriculum map using the old general education model.

  [Note: This timeline is meant to mirror the timeline for articulation agreements, which can be used by students for three years after they take effect. Further follow-up on this timeline recommendation, particularly with Admissions, is desired.]

  This means that, if Essential Studies hits catalog in Fall 2018, a transfer student (N2) who enters Oregon Tech at or before Fall 2021 may opt to use the 2017-2018 (pre-Essential Studies) curriculum map and general education requirements. (This is similar to articulation agreements, which include the clause "Students must enroll at Oregon Tech within three years of this approval [of the articulation agreement].")

  [Note: Although transfers may be able to opt in to either curriculum map, a "default" option will still need to be selected (as transfer advising processes are improved, this decision could be folded in to those).]

## Part II: Policies for Oregon Tech Courses (reviewed by GEAC 15 June 2017)

(Drafted in response to inquiries made during course submission and curriculum mapping.)

### Prerequisites

Question: Will we mandate prerequisites for foundation → practicing pathways? Will we mandate prerequisites for program-integrated courses?

Answer: GEAC trusts faculty and departments to set meaningful prerequisites that are optimal for supporting student success. For Essential Practice courses and Program-Integrated Practice, we strongly recommend a prerequisite of at least one Foundational course in the relevant outcome area, but recognize that it may not be desirable or practical to add such a prerequisite as part of the initial course and curriculum approval process. (The impact of different types of foundational preparation can also be evaluated as part of the assessment process.)

We also recognize that a 300-level course number or higher serves as a signal to students that an advanced level of preparation is desirable and may implicitly reinforce proper sequencing along outcome pathways. Additionally, advising tools such as curriculum maps should place foundational coursework as early as practical in order to signal to students the optimal times and orders in which to take Foundational and Practicing-level courses.

### Course Numbers

Question: Do we want to mandate that foundation or practicing courses fall in certain numerical ranges? (e.g. Foundation: 1xx, 2xx, 3xx; Practicing: 2xx, 3xx, 4xx)

Answer: Approval of a course as Foundational or Essential Practice should not be contingent on course number, but primarily on course content and outcomes. However, GEAC expects that Foundational courses will most often have 100-level and 200-level numbers, whereas Essential Practice courses will most often have 300-level numbers and higher. As courses are revised or new courses are created, there should be gradual movement to give Essential Practice courses 300-level numbers (with the main exception possibly being Essential Practice courses that are part of a 200-level course sequence, where the first course in the sequence is Foundation).

### Use of Essential Practice Courses as Foundational

Question: Since some courses might achieve practicing-level criteria without prerequisites in that outcome area (e.g. PHY221), can Essential Practice be a subset of Foundation?

Answer: Although we do not anticipate this occurring often, a course fulfilling Essential Practice requirements might be used to fulfill a Foundation requirement, if it also meets the foundational requirements, but this should be handled on a case-by-case basis if such a substitution is needed. Courses that are part of sequences should strongly consider tagging the first course as Foundation and a subsequent course as Essential Practice.

A related situation might arise if a student transfers in a Diverse Perspectives Essential Practice course, but not a Foundational level course. There would be little justification for asking a student to go back and complete additional foundational-level work when the student has already completed more advanced work; however, the student would still need to complete an additional Essential Practice course to fulfill that requirement.

**Sciences List**

Question: The Essential Practices block for the IA-Sciences was described in the GERTF final report as requiring courses "outside of areas that traditionally support the major." How can we more clearly define this?

Answer: We agree that GEAC needs to set a clear definition for this prior to program mapping. (e.g. – for an engineering major, could they apply a physics course to this block? Any natural science course?)

Depending on how this stipulation is defined or refined, this may have an impact on whether a curriculum map's conversion to Essential Studies is credit-neutral. During Summer 2017, a thorough review of programs' curriculum maps (with consultation program faculty, if possible) will help suggest parameters for specifying this requirement that balance the goals of:

- exposing students to a range of disciplines and modes of inquiry,
- integration of outcomes with course sequences that are foundational for programs,
- maintaining credit neutrality in converting maps to Essential Studies.

Armed with this data, GEAC will then be able to revisit this question at the start of Fall 2017.

**Part III: Questions Related to Individual ESLO Pathways**

(responses submitted by ESLO committees, Spring 2017)

**For Communication ESLO committee:**

Question: Many programs are interested in specifying a course that best prepares students for communication within their discipline/profession; can you share high-level detail on the options being developed by the Communication department in this direction?

Answer: "The course list from Appendix G represents all of the courses that have been submitted for approval. Based on feedback from GEAC, the COM ESLO committee, and the degree programs, the Communication department has plans to develop and submit two courses in the Fall 2017 term (WRI 3xx: Writing in the Health Sciences, and WRI 3xx: Writing in Engineering), with pilot offerings scheduled for the Winter and Spring 2018 terms."

Question: Will new COM electives (generally) be 300-level? At present, a number of programs slot WRI227 in the first year, which is not ideal. Use of higher numbers for practicing-level COM would help signal the "right place" in the curriculum for them to sit.

Answer: "All currently planned additions to the COM ESLO Essential Practice list are 300+ level courses.

WRI 227 will not be renumbered. WR/WRI/EN 227 is the common course number used in Oregon public universities and community colleges for an intermediate-level technical communication course, so renumbering WRI 227 would likely lead to confusion in the transfer approval process. However, the Communication department plans to make substantial changes to the structure of the course (and potentially resubmit for approval) during the Fall 2017 term; the planned changes will both enable the course to integrate more gracefully with most degree programs' first- and second-year curricula, and bring the course in line with other WR/WRI/EN 227 courses throughout the state (easing transfer approval)."

**For Inquiry & Analysis ESLO committee:**

Question: Can we solicit (or explain why we can't include):

For Foundation:

- BIO 105; Human Anatomy & Physiology

For Essential Practice:

- ECO201/202 (would be great for a double-dip with QL).
- More from the Natural Sciences Department at the practicing level.
- ANTH 452;
- BUS213, 316, 317

Answer: "Additional courses such as the above should be submitted for IA approval." [Note: This is consistent with notes in Appendix G; we expect substantial additional submissions to build out the IA list, particularly at the Practicing level.]

**For Ethical Reasoning ESLO committee**:

Question: Two programs have identified foundational courses with other tags as their program-integrated ethical reasoning foundation (Psychology identified PSY 203; PHM identified SOC 204). Is this a problem as long (as long they don't double dip)? Could other programs use these courses as program-integrated ethics or not?

Answer: "We agreed that there would be no issues with other programs using the program integrated course of other programs (or other programs identifying two courses that could meet that outcome as long as they are not double-dipping and especially if they are related programs."

Question: A few programs had trouble identifying an appropriate course within their program. Can we prepare examples and suggestions for them?

Answer: "The committee thoughts that instead of coming out with some basi suggestions for programs having difficulty identifying a foundational course in their program, that the committee should meet with these programs to help them better understahdn the ESLO and pick an appropriate course to meet that outcome. This activity seems like a probable core activity for the future of the committee as it currently stands."

**For Quantitative Literacy ESLO committee:**

Question: Would it be possible to consider MATH 465 for QL foundation and/or articulate why not? Any alternatives that the committee can recommend?

Answer: "There are several reasons why the committee does not believe that Math 465 is an appropriate foundation level course.

> (a) While the course is titled \Mathematical Statistics" it is, in fact, a probability course which contains relatively little material on formal statistics. Historically, this was because it is the first in a three course sequence on mathematical statistics, and so addresses the probability theory that is the foundation of the statistics. That statistics content would then appear in follow-on courses that do not, at present, exist at this university.
>
> (b) The material is generally presented as either theoretical or industrial/applied. It is, in short, a course for technical majors supporting material that appears in their programs. It is not a course for furthering the civic and personal quantitative literacy of our students, which is the aim of a foundational course.
>
> (c) Finally, most students take this class late in their career – often in their senior year. Foundational courses are supposed to provide a foundation for further learning in the student's college career. It follows that they should generally be taken early in the student's career. This further strengthens the argument that Math 465 is really a program-integrated course, not a foundational course."

Question: Why is appropriate to have a 300-level course at the "foundational" level? (this is tied to the GEAC question about appropriate course numbers).

Answer: It is unfortunately the case that the numbering of courses is determined more by historical accident than as the result of rational thought. One of our foundational courses (Math 361) is quite elementary, and is often cross-listed with 200 level courses at other schools. The reason it is listed as a 300 level course at OIT has to do with accreditation, and while there have been recent efforts to change it to Math 261, the status quo has considerable inertia.

We note that it is common for 300 level courses at this university to have few, if any, prerequisites. Just to single out one other department, Bus 309, 331, 337, 345, 347, and 350 all have no listed course prerequisite of any kind. Course number is simply a very poor guide to where a course stands in a student's progress toward their degree. It is better, we suggest, to consider rather the diffculty of the material, what earlier material it builds on, and what year, typically, the course is taken."

Question: Can the following courses be considered for QL list: (or explain why it's not appropriate)?

Answer: "First we would like to reiterate that the foundational and required practicing QL courses should not just display appropriate QL content, but also in the civic and personal context. After long discussion, the QL committee has decided to interpret this as meaning courses that address basic statistics (our foundational level courses) or basic finance (our required practicing courses). We chose these as subjects that *all* of our students will have to deal with in their life after school.

With that in mind, the suggested courses were:

(a) CHE/PHY courses - Wonderful courses, to be sure, having lots of great QL content. But not in the personal or civic context, as we've defined it.

(b) BUS 349, MIS255, MIS357 (requested by Medical Laboratory Science) - Again, apparently very nice courses with QL content, but seemed to us to be narrowly focused on a particular discipline. They would probably be good program-integrated courses, again not really QL in the personal or civic context.

(c) ACC 201/203 (requested by Dental Hygiene) - Here we were convinced that these courses could, in fact, be reasonable candidates for required practicing QL. Applications for these courses have been solicited, and we hope to add them to the list early in the Fall."

**For Diverse Perspectives ESLO committee:**

DP1) Can we solicit:

- ANTH 452 (many engineering programs require this)
- SOC 325/335 (wanted by Dental Hygeine)
- PSCI 326 (wanted by Operations Management).

Answer: "We all agreed that the first three courses on this list should be solicited for applications. PSCI 326 doesn't seem to exist in the catalog, and so we weren't sure if this course still existed or where the request to tag it even came from."

**Part IV: Draft Transfer Flowchart for Diverse Perspectives**

(provided by Diverse Perspectives committee, 14 June 2017)

**Questions For the Registrar**

1. Is the incoming course tagged with it's university's equivalent of a "diversity," "non-Western perspectives" or "cultural awareness" tag?
    a. If YES, tag as Foundational Diverse Perspectives OR progress to question 4 if evaluating for Practicing Diverse Perspectives.
    b. If UNSURE, proceed to question 2.
    c. If NO, proceed to question 2.
2. Does the course title or description contain any of these keywords: **[race, class, gender, diversity, culture...this list of keywords needs to be fleshed out in a later draft]**?
    a. If YES, forward the course to the appropriate department chair.
    b. If UNSURE, forward the course to the appropriate department chair.
    c. If NO, reject the course for a Diverse Perspectives tag.

**Questions For the Appropriate Department Chair**

3. Do the course title and description suggest that the student is expected to learn factual information about a diversity of perspectives* on the course's subject?
    a. If YES, tag as Foundational Diverse Perspectives OR progress to question 4 if evaluating for Practicing Diverse Perspectives.
    b. If UNSURE, forward the course to the Diverse Perspectives ESLO Committee Chair for a final decision.
    c. If NO, reject the course for a Diverse Perspectives tag.
4. Do the course title and description suggest that the student is expected to put their understanding of diverse perspectives in practice through their work in the course?
    a. If YES, tag as Practicing Diverse Perspectives.
    b. If UNSURE, forward the course to the Diverse Perspectives ESLO Committee Chair for a final decision.
    c. If NO, reject the course for a Practicing Diverse Perspectives tag.

**Questions For the Diverse Perspectives ESLO Committee**

In the instances where the Department Chair is UNSURE of the answer to the determining question (question 3 for Foundational courses and question 4 for Practicing courses), the committee will consider the same questions as the Department Chair (3 and 4 above), but will make the final decision.

* "A diversity of perspectives" may include (but is not limited to) customs, practices, histories, methodologies, and other viewpoints of various cultures, individuals, and identities spread across different times and/or geographic locations.

**Appendix M**
**Draft Interstate Passport Block**
(reviewed by GEAC 18 May 2017)

"Interstate Passport is a program that facilitates block transfer of lower-division general education based on learning outcomes and proficiency criteria. It comprises learning outcomes in nine knowledge and skill areas developed by faculty at institutions in multiple states, as well as an academic progress tracking system, designed by registrars and institutional researchers, for Passport transfer students. The goal of the Interstate Passport is to eliminate transfer students' unnecessary repetition of learning previously achieved." - http://www.wiche.edu/passport/home

In March 2017, Oregon Tech received a small grant from the Oregon HECC to incentivize faculty work in drafting "Passport blocks" – identifying Oregon Tech courses that meet Passport outcomes (outbound blocks) and identifying Essential Studies requirements satisfied by Passport (inbound blocks).

We anticipated that this work would be straightforward, given Oregon Tech's robust discussions about learning outcomes over the past several years alongside the GERTF review and, in particular, ESLO committees' work in course approval during the 2016-2017 year.

A team of representatives from relevant ESLO committees was recruited to lead discussions regarding alignment between Interstate Passport:

- Seth Anthony, GEAC Chair
- Ryan Madden, Humanities & Social Sciences
  (Inquiry & Analysis ESLO committee; former member, Diverse Perspectives ESLO committee)
- Hui-Yun Li, Natural Sciences (Inquiry & Analysis ESLO committee)
- Trevor Petersen, Humanities & Social Sciences (Teamwork ESLO committee)
- Randall Paul, Mathematics (Quantitative Literacy ESLO committee)
- Matt Search, Communication (Communication ESLO committee)

These individuals worked during Spring 2017 to first tentatively identify possible alignments between Interstate Passport outcomes and Essential Studies outcomes. These potential alignments were then vetted by members of this group with ESLO committees and other interested parties, then assembled and vetted by GEAC in May 2017.

This process found excellent overall alignment between Essential Studies outcomes and Interstate Passport outcomes, demonstrating the desirability to further explore becoming a Passport institution.

The draft recommendation (with additional areas for further work) is included on the following page. Additional desirable parties for review prior to implementation:

- Essential Studies Transfer Team (which includes general education department chairs and representation from the Registrar's Office)
- Coordination with the Provost's office will be needed to chart a path towards Oregon Tech becoming a Passport institution.

| **Interstate Passport Block** | **Essential Studies Outbound Block** (what OIT courses here fulfill these Passport Requirements for students transferring out of Oregon Tech) | **Essential Studies Inbound Block** (what Essential Studies requirements -- not prescribed by programs – are deemed met if a student comes to OIT with a completed Passport) |
|---|---|---|
| Oral Communication | **Communication – Foundation** (entire block) | **Communication – Foundation** (entire block)* |
| Written Communication | | |
| Quantitative Literacy | **Quantitative Literacy – Foundation** | **Quantitative Literacy – Foundation**** |
| Natural Sciences | **2 IA-Natural Sciences-Foundation** one from physical sciences, one from life sciences. | **IA-Natural Sciences-Foundation** |
| Human Cultures | **IA-Social Sciences-Foundation** + **Diverse Perspectives-Foundation** | **IA-Social Sciences-Foundation** + **Diverse Perspectives-Foundation** |
| Creative Expression | Outbound option 1:*** one course meeting all elements, such as the "Design Arts and Aesthetics" Outbound option 2:*** one IA-H-Foundation + one "creative"/"performance" art course | **IA-Humanities-Foundation** |
| Human Society and the Individual | **IA-Social Sciences-Foundation** and **IA-(Social) Sciences-Essential Practice** | **IA-Social Sciences-Foundation** and **IA-Sciences-Essential Practice** |
| Critical Thinking | (Completed by virtue of having completed the other requirements, including **all IA-Foundation** and one **IA-Essential Practice**) | (Includes requirements that complement and reinforce IA outcomes.) |
| Teamwork | **Teamwork-Foundation** | **Teamwork-Foundation** |

* Comm ESLO Committee has expressed concern that, while Passport outcomes are well-aligned with the outcomes of this foundational block, some courses identified by Passport institutions are not. Further discussion with the Comm department has been suggested.

** QL ESLO Committee has concerns about allowing Passport's QL outcome to count in place of Oregon Tech's QL-Foundation statistics requirement. Further discussion surrounding the core rationale for this block (QL or QL+Statistics) will be required.

*** Course lists will need to be clearly defined for these in collaboration with the HSS department.

Required to complete passport: (36-39 credits)

- Communication – Foundation (9 credits)
- Diverse Perspectives – Foundation (3 credits)
- Inquiry & Analysis – Foundation (all 3 areas)
  (14-17 credits, depending on how Creative Expression is fulfilled)
- Inquiry & Analysis – Sciences Essential Practice (3 credits)
- Quantitative Literacy – Foundation (4 credits)
- Teamwork – Foundation (3 credits)

Credit granted for Passport: (32 credits; "lower-division general education")

- Communication – Foundation (9 credits)
- Diverse Perspectives – Foundation (3 credits)
- Inquiry & Analysis – Foundation (all 3 areas) (10 credits)
- Inquiry & Analysis – Sciences Essential Practice (3 credits)
- Quantitative Literacy – Foundation (4 credits)
- Teamwork – Foundation (3 credits)

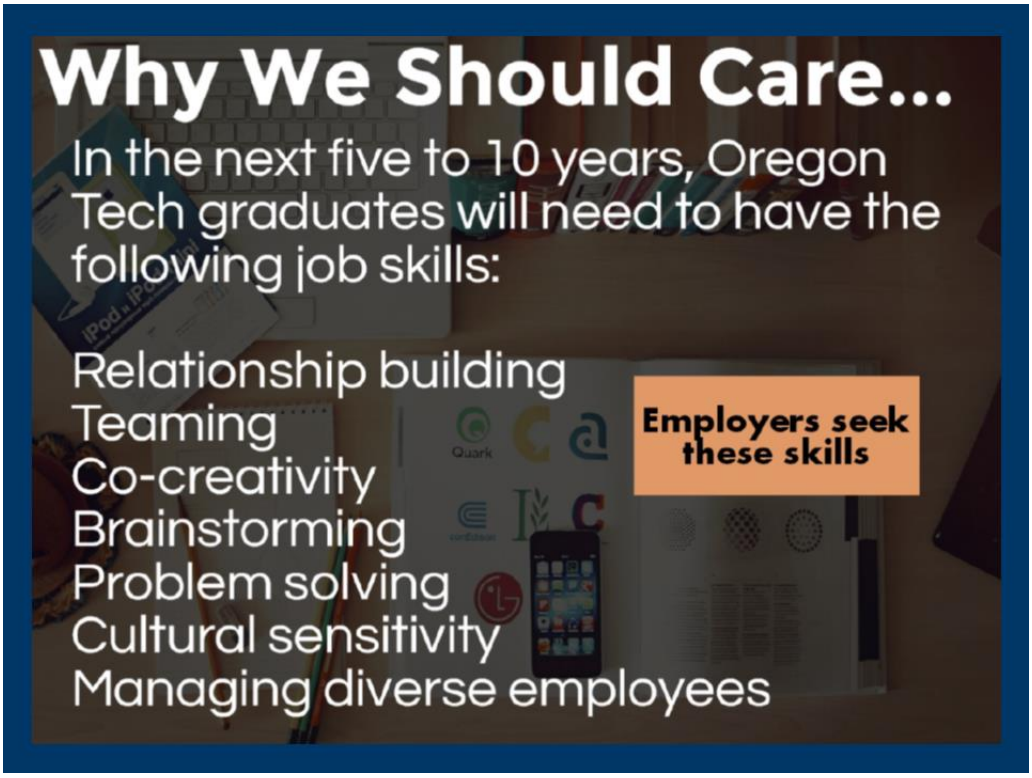
Not included in Passport: ("upper-division general education")

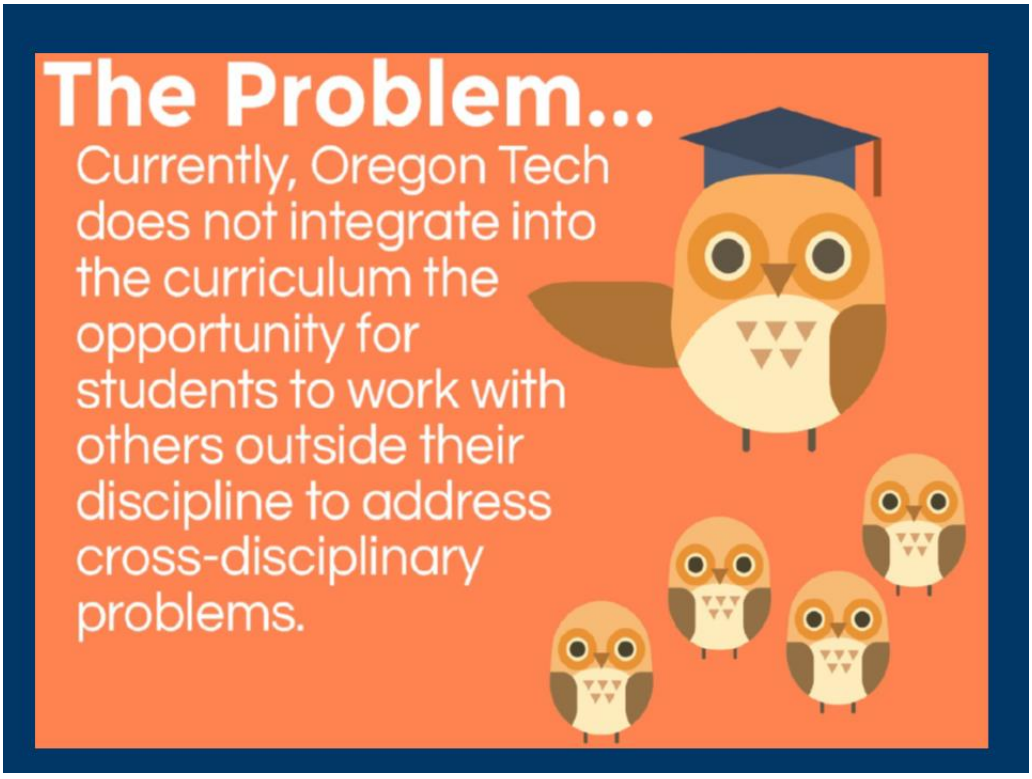
- Inquiry & Analysis – Humanities – Essential Practice
- Diverse Perspectives – Essential Practice
- Ethical Reasoning – Essential Practice
- Communication – Essential Practice
- Quantitative Literacy – Essential Practice
- Essential Studies Synthesis Experience (ESSE)

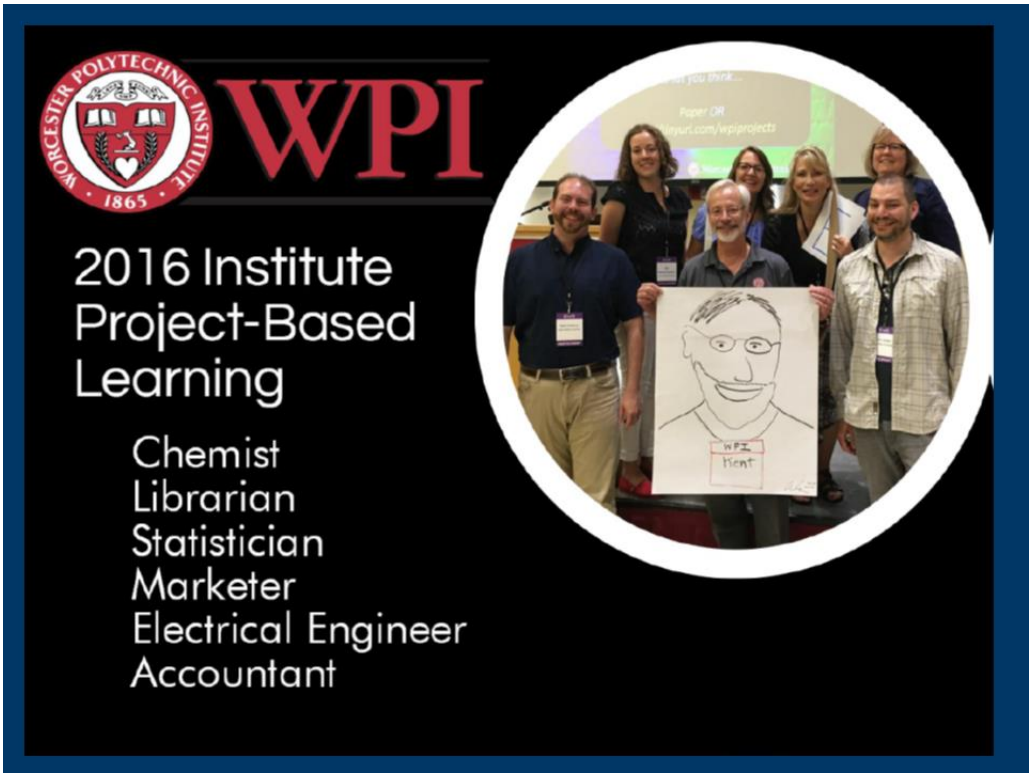
(Note: Ethical Reasoning – Foundation is also not included in passport, but this requirement is program-integrated).

**Appendix N**
**Draft ESSE Parameters and Pilot ESSE Approval Form**

**(Presentation as delivered at Convocation in September 2016; form developed by ESSE team January 2017)**


Why We Should Care...
In the next five to 10 years, Oregon Tech graduates will need to have the following job skills:
Relationship building
Teaming
Co-creativity
Brainstorming
Problem solving
Cultural sensitivity
Managing diverse employees
Employers seek these skills

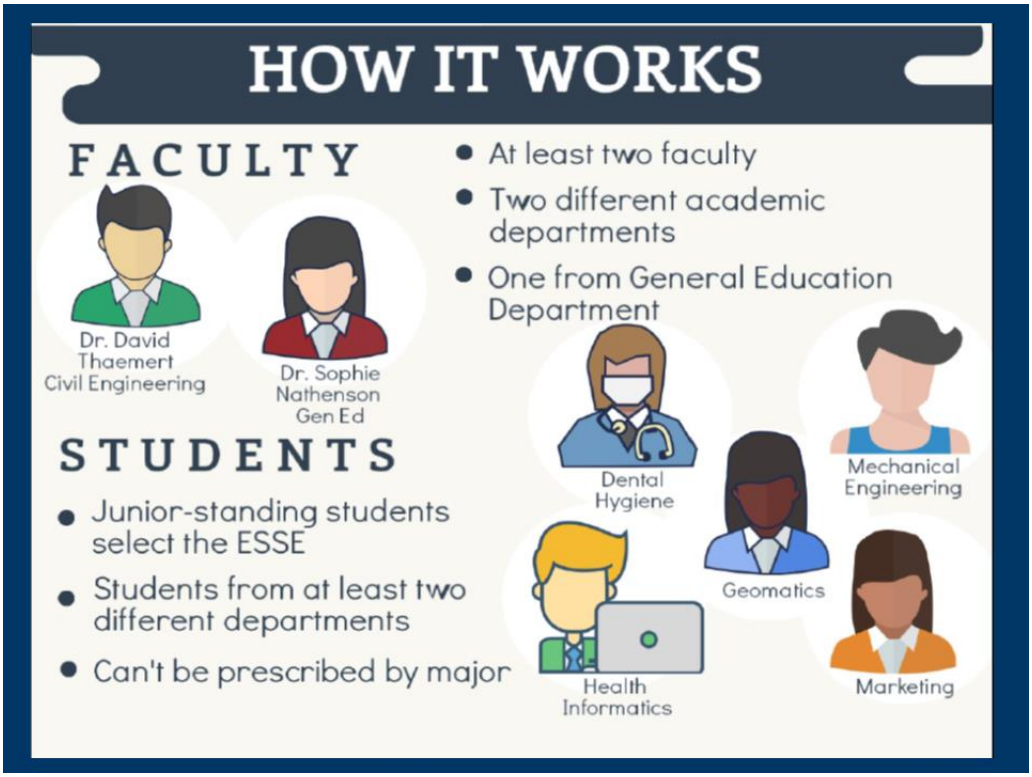

The Problem...
Currently, Oregon Tech does not integrate into the curriculum the opportunity for students to work with others outside their discipline to address cross-disciplinary problems.

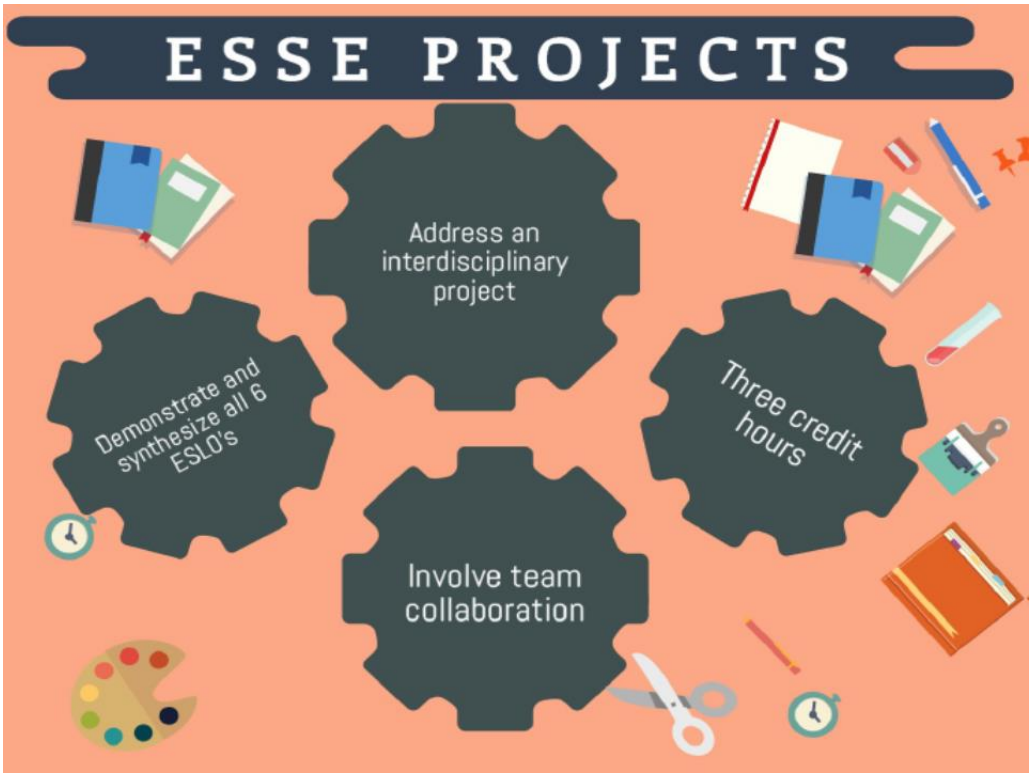


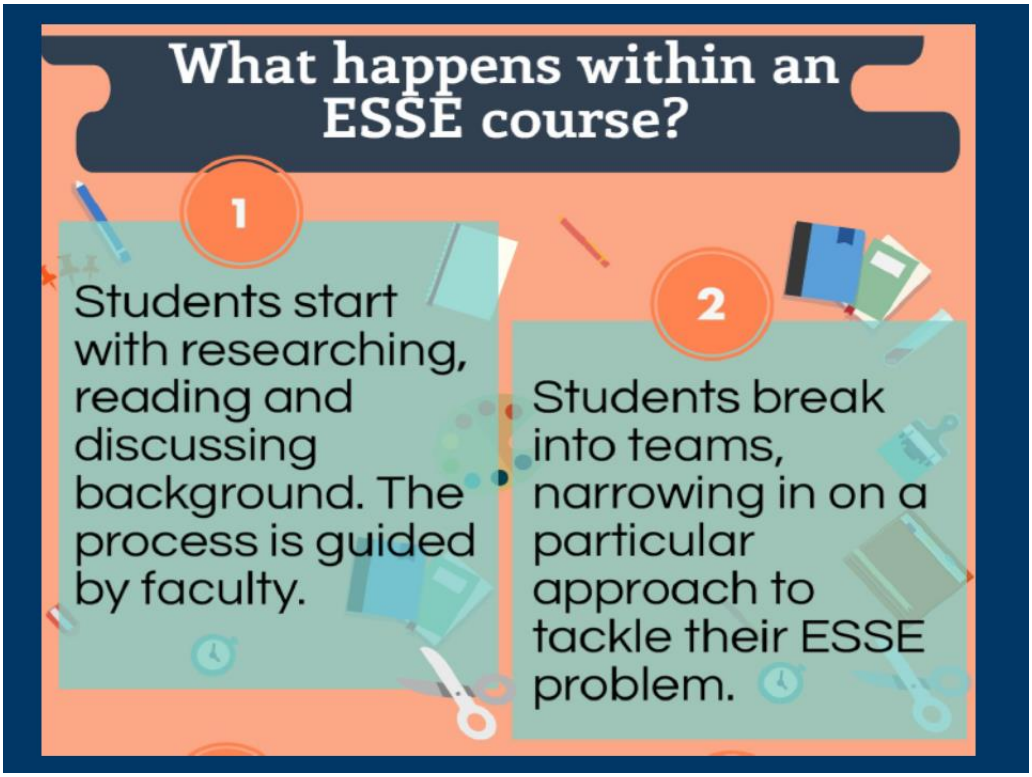

# The Solution

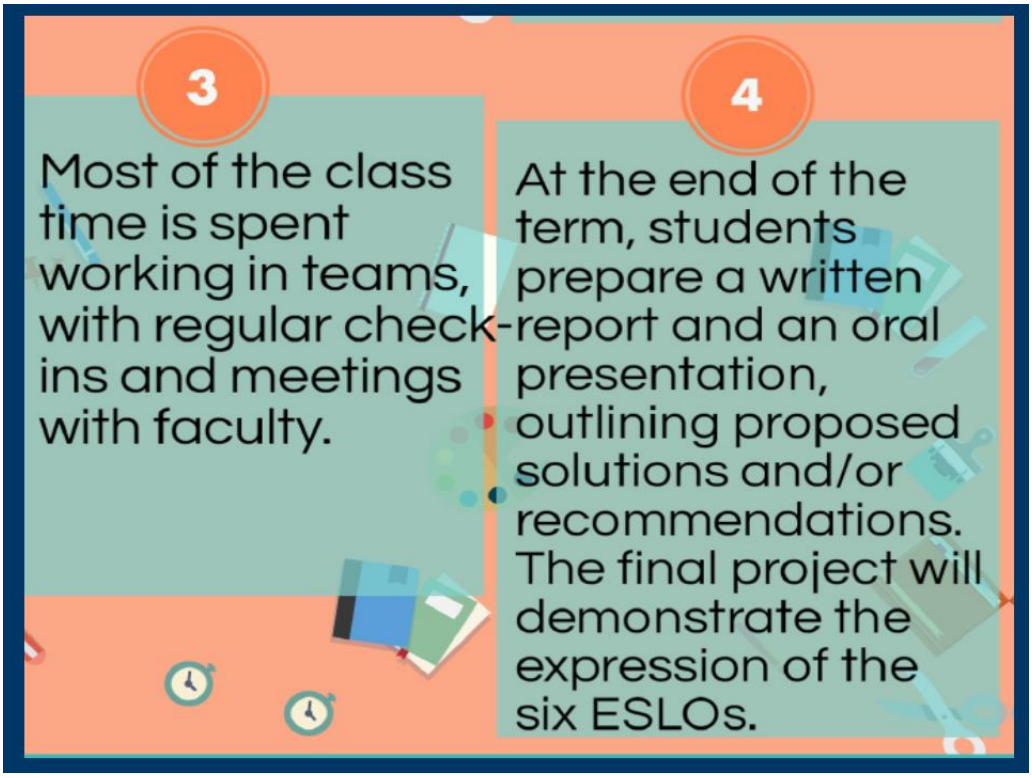
The ESSE provides students with a project-based course that prepares them for a complex society where they will be expected to collaborate and problem-solve with diverse individuals.

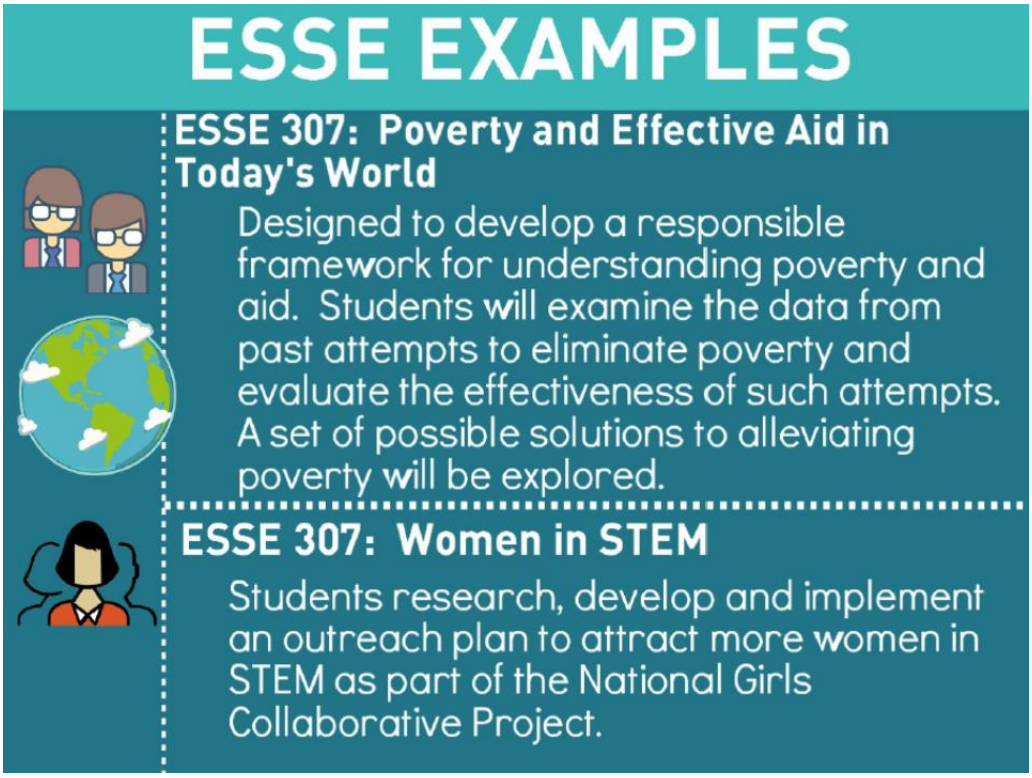

6 ESLOs
Teamwork
Communication
Diverse Perspectives
E S S E
Ethical Reasoning
Inquiry & Analysis
Quantitative Literacy


HOW IT 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 at least two different departments
Can't be prescribed by major
Dental Hygiene
Mechanical Engineering
Geomatics
Health Informatics
Marketing

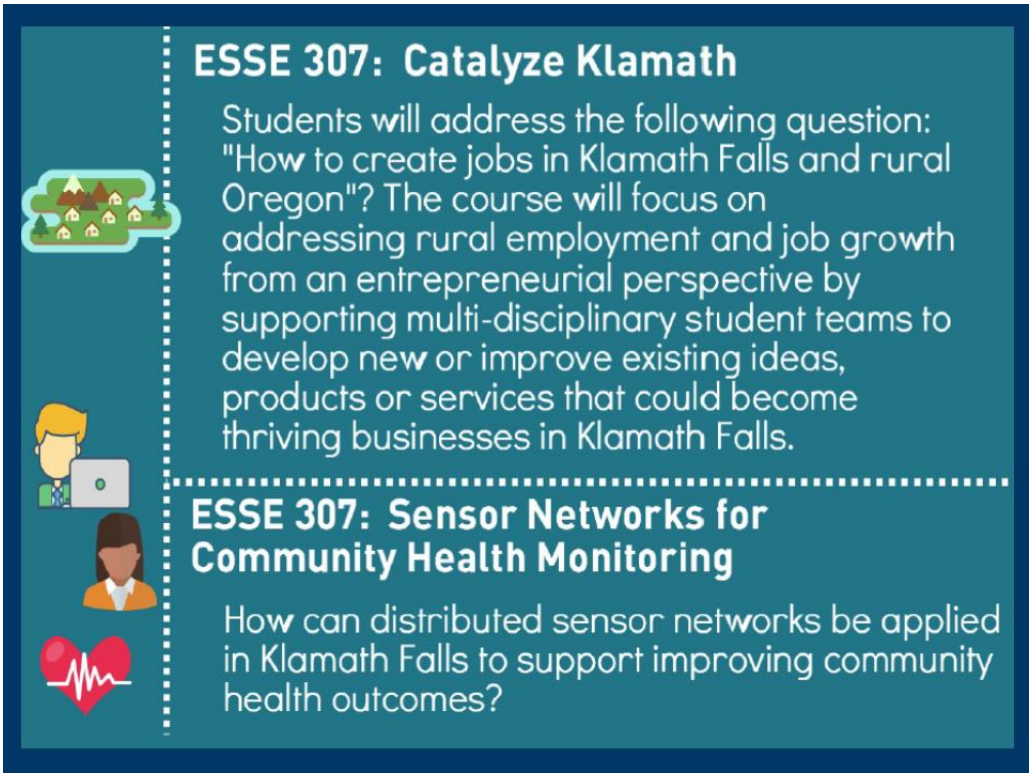

ESSE PROJECTS
Address an interdisciplinary project
Demonstrate and synthesize all 6 ESLO's
Three credit hours
Involve team collaboration


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.

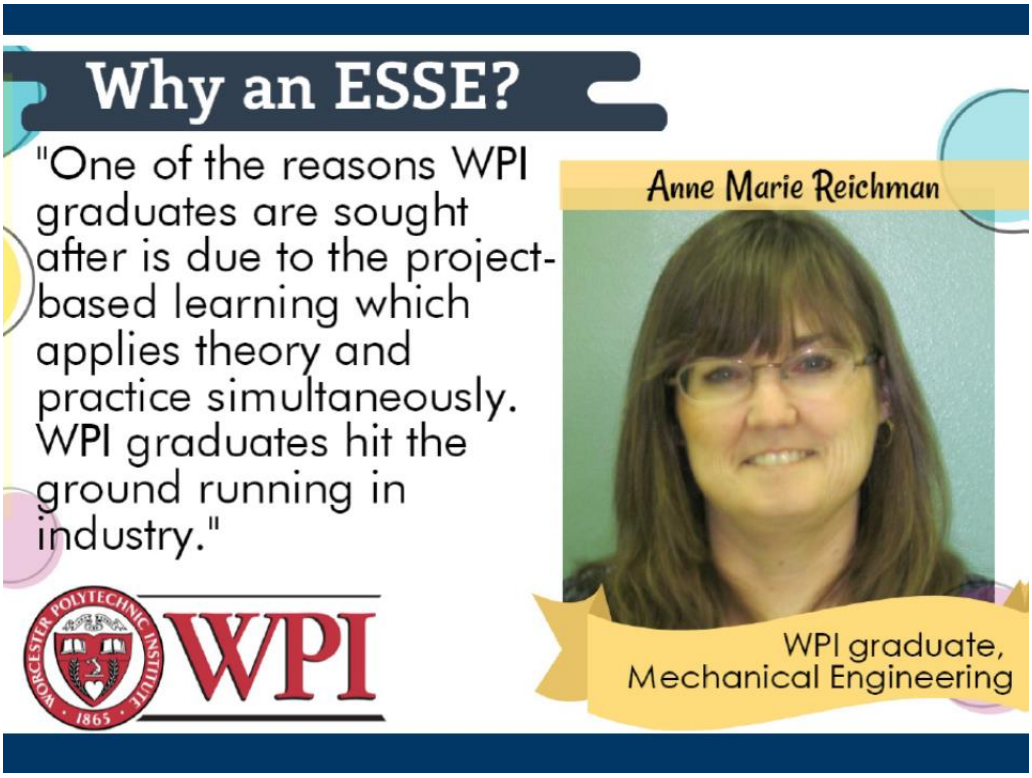

ESSE EXAMPLES
ESSE 307: Poverty and Effective Aid in Today's World
Designed to develop a responsible framework for understanding poverty and aid. Students will examine the data from past attempts to eliminate poverty and evaluate the effectiveness of such attempts. A set of possible solutions to alleviating poverty will be explored.
ESSE 307: Women in STEM
Students research, develop and implement an outreach plan to attract more women in STEM as part of the National Girls Collaborative Project.


ESSE EXAMPLES
ESSE 307: Oregon Tech Makerspaces
Students research what makes for successful makerspacers 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.
ESSE 307: Oregon Tech STARS
Students collect and document data for Oregon Tech Sustainability, Tracking, Assessment, and Rating System (STARS) report, as a way to understand how the university is doing with sustainability and pinpoint areas for improvement.


ESSE 307: Catalyze Klamath
Students will address the following question: "How to create jobs in Klamath Falls and rural Oregon"? The course will focus on addressing rural employment and job growth from an entrepreneurial perspective by supporting multi-disciplinary student teams to develop new or improve existing ideas, products or services that could become thriving businesses in Klamath Falls.
ESSE 307: Sensor Networks for Community Health Monitoring
How can distributed sensor networks be applied in Klamath Falls to support improving community health outcomes?


ESSE 307: International Experience
Students from various majors investigate the following question:
How can community-development projects in other countries maintain those projects for long-term success?


Why an ESSE?
"With a project like this you are interacting in a very interdisciplinary way by bringing together a team of different majors to solve a problem that is very real."
WPI
Katie Picchione
2016 WPI graduate, Mechanical Engineering


Why an ESSE?
"One of the reasons WPI graduates are sought after is due to the project-based learning which applies theory and practice simultaneously. WPI graduates hit the ground running in industry."
WPI
Anne Marie Reichman
WPI graduate, Mechanical Engineering


Employer
Student
Increases Oregon Tech's Value Proposition
Students have applicable, cross-disciplinary real-world experiences that employers value.
Oregon TECH


Competitive Advantage
Oregon Tech graduates have one more advantage in a highly-competitive job market to differentiate themselves from other applicants.
Oregon TECH


Oregon Tech Moves Up in U.S. News & World Report Rankings as Best West Regional College and Top Engineering Programs
My Oregon TECH is rated
No. 1 Top Public West Regional Colleges
No. 2 Best West Colleges for Veterans
No. 3 Best West Regional Colleges
No. 35 Best Engineering Programs
U.S. News and World Report

**Questions Posted by Faculty in response to ESSE presentation at convocation**

(some of which still need to be addressed in collaboration with administration)

**Launching the ESSE:**

- How will the university contribute to the groundwork and funding that may be needed to make ESSE projectors come to fruition?
- How many pilot ESSE's will be completed before making decision?
- Who will assess these pilot courses?
- What will be the process by which a proposed ESSE is approved?
- How do we migrate for our traditional junior year capstone to a cross-disciplinary ESSE model?
- Have a general education faculty member head up a few ESSE's who guides program faculty through process. Basically general education person has the model and incorporates expertise of program faculty but reducing the amount of time they need to do for ESSE course planning?

**Faculty time:**

- Will faculty teaching ESSE projects get course release to allow them time to create quality offerings?
- How does ESSE's collaborative teaching deal with the fact that many general education faculty are already teaching out of load to meet current demands?
- If one faculty member must be general education, then an engineering professor couldn't team up with management, or CLS, or Psychology, etc?
- How does workload relate to ESSE's when you have 2 faculty or more?

**About the ESSE:**

- Does the end deliverable have to be a written report or could they produce more interesting/audience – aware multimedia deliverables?
- Can students create their own projects?
- Quantitative Literacy is something in which our programs are already strong. Why is it included in the ESSE?
- ESSE 307 courses: Does each of the 6 ESLO's have equal value in the course?
- Would student report have a "checklist" to be certain the report covers all 6 ESLO's? Or what's in the report that can be used for grading?
- Will there be mechanism to obtain monies (grants, stipends, etc.) to support ESSE? (supplies, faculty load, etc.)
- Is there a list of General Education departments to choose faculty from for ESSE?
- What happens with the major is a general education? Example: Math based project. Do they get another general education faculty? Or any faculty is ok?
- Can students required to take small group communication (currently SPE 321 but becoming SPE 221) complete an ESSE that has focused some on group communication use the ESSE synthesis to fulfill both requirements?
- One term to complete a 3 credit course that includes time for students to research, choose/combine ideas, choose a path, complete project, present and write up seems very peripheral given it needs to meet all ESSE's. To create the synthesis you describe – appropriate time needs to be addressed.
- Cost in terms of time for students?
- Cost in terms of Wilsonville that will be a result of ESSE?
- Cost in dollars for not only faculty resources (new additional) but support staff as our faculty numbers grow.

- What if, after several years, faculty enthusiasm for ESSE's wanes? Students will still need an ESSE. Will faculty be assigned?

**Students and the ESSE:**

- What happens if all of the students interested in a particular ESSE are from the same department?
- What happens if only one or two students is interested in a particular ESSE?
- Many transfer students start at OIT as juniors or seniors, even if they have years yet to graduate. Is class standing the only prerequisite? I had one first year freshman start as a senior because of AP/IB classes in high school?
- Do students form their own teams? How do they meet students outside their departments?
- How will ESSE work for students not on our Klamath and Wilsonville campuses? For example – Chemeketa only has Dental Hygiene students. How will they be able to have the same opportunity?

# PILOT PROPOSAL

*GRANT FUNDS FOR PILOT ESSE DEVELOPMENT*
Grant funds up to $2,000 (per course) are available for ESSE development. In order to receive funding, faculty must submit the following deliverables to the ESSE team:

1. ESSE Pilot Proposal Form: ESSE team will review proposal and grant approval to proceed.
2. ESSE Course Approval Form with detailed syllabus: ESSE team will review and grant permission to run pilot course.
3. Course materials: ESSE course must be developed using Blackboard, the course shell with be shared with the ESSE team. The ESSE team will use course materials and student work from pilot ESSE courses to use as examples for further ESSE development.
4. Reflection: ESSE course instructor(s) submit reflection identifying strengths, weaknesses and suggestions for improvement.

## REQUIREMENTS

*FACULTY*
- At least two faculty, each from different departments.
- One faculty must be from General Education department: Communication, Humanities and Social Sciences, Mathematics, and Natural Sciences.

*STUDENTS*
- Junior-standing students
- Elective ESSE course: Student choice rather than program defined.
- Must be designed to allow enrollment of students from any major.
- Enrollment must include students from at least two disciplinary areas: Arts and Sciences, Engineering, Health, Management.

*ESSE PROJECTS*
- Synthesize and demonstrate all six Essential Studies Learning Outcomes.
- Address an interdisciplinary topic.
- Three credit hours in total.
- Involve team collaboration.

| **Course Number** | **Course Title** |
|---|---|
| | |
| **Will all three credits be in one term or distributed across multiple terms?** | **Please specify term(s) and credit(s):** |
| ☐ One term ☐ Multiple terms | |

| Location (check all that apply): | Enrollment: |
|---|---|
| ☐ Klamath Falls<br>☐ Wilsonville<br>☐ Online | Minimum: |
| | Maximum: |
| **Course Instructors** | **Departments** |
| | |
| **Write a statement describing the issue, problem or topic:** | |
| | |
| **List possible Organization(s), Industry Partner(s), Key Stakeholder(s):** | |
| | |
| **Describe possible culminating product(s) produced:** | |
| | |
| **How do you plan to recruit students?** | |
| | |

Signatures below indicate proposal fits departmental and academic strategic plans and departments will commit appropriate resources to support the proposed course. Department Chair will ensure course outcome alignment over all sections, locations and modes of delivery.

_____ _____

Department Chair Department Chair