

Inquiry-Based Course Development and Redesign Grant Request for Proposals

The Office of Undergraduate Research and Inquiry (OURI), along with the QEP Committee of the Faculty, is pleased to request proposals from departments and faculty to develop or redesign courses within the majors to align with the inquiry-based experiential education focus of the OURI. These courses will ensure “students will be introduced to the tools and technologies of their disciplines” through “enhanced discipline-based courses” (QEP p 17).

Explanation of Inquiry-Based Experiential Education courses:

Inquiry-based discipline-specific courses can include a variety of skills including qualitative and quantitative literacy, framing of questions or problems, exploring questions or problems through appropriate discipline-specific processes and methods, and drawing a variety of conclusions based upon acquired skills within a theoretical framework. In the sciences this will likely include hypothesis generation and testing, while in the arts this will likely include conceptualizing and creating a product (a work of art: a painting, a sculpture, a poem, a music score) or performance (a recital, play, or other creation). In inquiry-based courses students are given the direction to examine alternatives within the discipline and draw conclusions through individually guided explorations.

Departments and professors will play a vital role in creating courses that will scaffold students through the inquiry process at a level commensurate with students’ knowledge and abilities. When using inquiry-based lessons, professors are responsible for: starting the inquiry process; promoting student dialog; transitioning between small groups and classroom discussions; intervening to clear misconceptions or develop students' understanding of content material; modeling scientific or artistic procedures and attitudes; and, utilizing student experiences to create new content knowledge. (Llewellyn, 2002)

“At the discipline-based skills course level, students will learn about:

- Their faculty member’s area of research and current topics of interest;
- Application of practices and methods (including tools and technology) within a discipline, done in a scaffolded approach, in a lab, studio, field or office setting;
- Intermediate level hypothesis and problem-framing processes related to higher level skills related to research and inquiry;
- Performance of an authentic inquiry-based project using acquired skills in response to a hypothesis or inquiry-based problem;
- Communication skills such as report writing;
- Application of work in the four SLO areas” (QEP, p 19-20)

When incorporating inquiry-based methods into the classroom, departments and professors should engage students in a variety of activities ensure that students have the opportunity to successfully move through the inquiry cycle not just at the course level, but as they move through their major program. This six-stage inquiry cycle (identified by Llewellyn, 2002, p. 13-14) and potential courses activities and objectives, as referenced in

the QEP, are identified below:

Stages of the Inquiry Cycle and possible activities associated with that stage

- 1 Inquisition – stating a "what if" or "I wonder" question to be investigated
 - Classroom activities that engage students in information literacy or discipline-specific forms of communication such as written, oral, or other means to examine questions/problems
 - Teaching modes of inquiry that are discipline-specific.
- 2 Acquisition – brainstorming possible procedures
 - Review of various approaches and methods specific to the discipline that could be used to examine questions or problems
 - Teaching skills (equipment use, stats, software, etc.) needed to employ those modes of inquiry.
- 3 Supposition – identifying an "I think" statement to test
 - Coursework where students identify the strengths and weaknesses of various research and inquiry methodologies used to solve current problems or understand principles in the discipline
 - Teaching the process of asking and answering research questions (hypothesis formation and testing; creative works design and creation).
- 4 Implementation – designing and carrying out a plan
 - Assignments or projects in which students collect and analyze data,
 - Laboratory, field, or studio course components for specific skill building (e.g., instrumentation, performance styles, working with certain materials)
 - Requiring at least one inquiry based project or activity that applies the information.
- 5 Summation – collecting evidence and drawing conclusions
 - Assignments or projects in which students conduct analyses and reflect upon observations
 - Assignments or projects in which students create works of art and reflect upon their final product.
- 6 Exhibition – sharing and communication results
 - Research- and inquiry-focused writing assignments, performances, showcases
 - Teaching the ways in which outcomes are presented, shared and discussed with others (written/oral communication skill sets).

For consideration of an Inquiry-Based Course Development and Redesign Grant, please complete all sections of this form. Where needed, please use the text boxes to provide more information. Partial submissions will not be considered, nor returned for editing.

General Information:

Department Name

Date

(Note: We will require an email from Department Chair confirming departmental support)

Faculty Member Name submitting on behalf of department

UT email

UT phone extension

Type of course grant will be used for (please review and select one):

Course Redesign (max award \$1000)

Awarded to a faculty member who is not currently teaching an inquiry-based course and will redesign the entire course to assist the OURI. Faculty will **provide a syllabus pre- and post-redesign and any assignments** to confirm the inquiry-based approach and add assessments to assist the OURI. *Redesign must result in changing 75% or more of a class assignments/grade to incorporate inquiry-based learning*

Redesigning significant assignment in a course (max award \$600)

Awarded to a faculty member who would like to add an inquiry-based assignment as *worth at least 35% of the overall course grade*, but will not do a complete redesign of a course. Faculty will **provide a syllabus to show the addition** of the assignment, the value in the overall course grade, and materials associated with the assignment to confirm the inquiry-based approach. In addition, faculty will complete assessments along with the assignment to assist the OURI

Adding assessments to an existing inquiry-based course (max award \$400)

Awarded to a faculty member who is determined to already teach an inquiry-based course and adds assessments to assist the OURI. Faculty will **provide a course syllabus and assignments** for confirmation of the inquiry-based approach.

Creation of a new inquiry-based course (max award \$1000)

Faculty will **provide a syllabus and assignments** to confirm the inquiry-based approach and complete assessments to assist the OURI.

(Note: please make sure the course has already been approved by the Curriculum Committee prior to submission)

Please identify the **course** number, name, and term (Fall or Spring- *grant is for only one term*):

Impact on Department/Major:

Reminder: While we welcome proposals from all faculty and programs, the goal of the OURI is to shift the culture to inquiry-based experiential education within all majors at UT. Therefore, priority will be given to those courses that advance this shift in the major and to those majors where multiple courses are affected.

Is this course part of a sequence: Yes No

Is this course a pre-requisite to other courses in the major: Yes No

Is the course required for any major
(e.g., your department or other departments): Yes No

Is the course required for any minor
(e.g., your department or other departments): Yes No

As a major focus of the OURI is enhancing inquiry-based experiential education not just within courses, but within majors, describe how this course will help to advance inquiry-based experiential education in the department where the course is housed:

Description of course/redesign:

Please describe, providing attachments such as syllabi and assignments, how the proposed work fits within the framework of inquiry-based experiential education, and the supporting OURI as defined above.

Stages of inquiry: Please be sure to identify and explain how students will move through at least *4 levels of the inquiry cycle identified on page 2 above*:

Goals and Outcomes: Please identify the goals and student learning outcomes of the OURI (*see page 7 below*) that are addressed via this proposal:

Attachments: **Please include syllabus/syllabi and other supporting documents with this application. If you have the option in your program, you can include attachments directly into this pdf by choosing "Tools" from the Adobe toolbar, "Content Editing", "Attach a File". If you cannot find that option, please simply include all supporting documents in submission e-mail. There is no need to limit the number of supporting files**

If your course is approved:

After receiving approvals for these inquiry-based experiential education course offerings, faculty will agree to participate in training to be eligible for OURI funding and resources (QEP, p 33). This will occur through a **workshop prior to the start of the semester**.

Additionally, faculty who receive these grants will agree to use course assessment instruments and data collection, provided by the OURI, to help advance the office's goals. Those ***assessments will include rubrics and online surveys*** (e.g., surveys of critical thinking and intellectual development). To provide opportunities to share experiences and discuss possible changes to approaches, we will also hold meetings to discuss course progress, successes, and failures throughout the semester.

Goals for the QEP/OURI:

1. Enhancing the awareness, importance, and visibility of scholarship and inquiry at UT by actively promoting and supporting both faculty mentoring and student engagement in these key learning processes;
2. Increasing opportunities for student scholarship and creative works by developing more opportunities for faculty-student engagement for intensive mentoring and creative relationships;
3. Engaging more students in quality internship experiences through changes in curricular requirements, strengthening of the rigor of internship outcomes and improved relations with community partners; and
4. Enhancing the University organizational structure to support these experiential processes

Student Learning Outcomes for the QEP/OURI:

1. Improving critical thinking skills as determined by changes in student approaches and problem solving as measured by external and internal assessment instruments;
2. Improving communication abilities as determined by improvements in writing styles and abilities as measured by qualitative scoring rubrics and national normed tests;
3. Improving communication abilities in public speaking/presentation skills as measured by qualitative scoring rubrics and national normed tests;
4. Attaining practical skills related to the field of inquiry, including information/reference searching, quantitative literacy, creative thinking, and problem solving relative to projects and performance standards.

To review the University's Quality Enhancement Plan (QEP), follow this link:

<http://viewer.zmags.com/publication/4ca402a3#/4ca402a3/1>