Lobos Connect: UNM Provost Challenge for Excellence and Equity

General Education Initiatives

https://provost.unm.edu/initiatives/lobos-connect.html

REQUEST FOR PARTICIPATION

Please complete the online participation-application form by 5:00 pm, May 29, 2020.

Click here to apply

Lobos Connect: The Provost’s Challenge for Excellence and Equity challenges us to deliver fully:

1) an excellent research education that contributes to equity
2) equity in educational experience that contributes research excellence.

Provost James Holloway and Vice President for Equity and Inclusion Assata Zerai invite you to participate in a challenge focused on strengthening general education at UNM. Entry-level and general education courses often close the door to higher education for structurally disadvantaged students. These courses are meant to serve as portals, but, both nationally and at UNM, they present more barriers to persistence and success for first generation students, low-income students, transfer students, and students of color than for their advantaged peers. The challenge comes in the form of two research-based and grant-funded projects designed to provide faculty with specific resources to improve equity in entry-level courses:

The Student Experience Project (SEP) offers faculty easily implemented tools to support students in the classroom by creating an inclusive environment for resilience and persistence.

Expanding Course-Based Undergraduate Research Experiences (ECURE) introduces students in STEM general education courses to entry-level undergraduate research experiences, with the goal of providing equitable, engaging and inclusive access to research and investigation. For this purpose, STEM is defined as those disciplines which can be supported by NSF funding (which includes economics, sociology, psychology and anthropology, in addition to engineering and traditional science disciplines).

If you teach general education or other entry-level courses at UNM’s Central Campus, we invite you to apply to become Teaching Fellows in either the Student Experience Project or the ECURE Project. Please read the pages that follow for additional details on each opportunity.

In addition, we invite you to attend either of the following Zoom-based Question-and-Answer sessions regarding these opportunities:

- May 11 at 2:00 p.m. Link: https://unm.zoom.us/j/4469836167
- May 14 at 2:00 p.m. Link: https://unm.zoom.us/j/4469836167

For questions, please email Joe Suilmann at suilmann@unm.edu.
UNM Student Experience Project

What is SEP?

The Student Experience Project is designed to improve classroom performance and persistence to completion of degree among structurally disadvantaged students, including first-generation students and students of color. SEP is a national, multi-institution effort to improve student success and equity by increasing belonging, growth mindset and other learning mindsets. Faculty participants in SEP will collaborate with peers, student success leaders, and social psychologists interested in informed research and practice. Participants will have the opportunity to explore the messages and communications students receive in class and apply what they learn to introduce changes in the classroom and design future efforts. Fellows will use and test a tool kit to improve the messages and signals delivered to students in gateway courses. The project is being sponsored and coordinated by the Association of Public and Land Grant Universities (APLU) and the Coalition of Urban Serving Universities (USU), with a number of other national organizations and five other universities. The tool kit interventions have been developed from a base of published socio-psychological research. For more, including information about the collaborating institutions and the research base, see https://studentexperienceproject.org.

THE STUDENT MINDSET CHALLENGE ADDRESSED BY SEP INTERVENTIONS

Adapted from diagram designed by Mindset Scholars Network
What are the types of SEP fellowships, and how are they compensated?

Exploratory Fellows. Faculty participating at this level are considering further involvement and are able to make some but not all changes required of full implementation fellows. Exploratory Fellows will incorporate least one from each of the subset of the list of interventions from the full implementation list. For 2020-21, SEP will support 8 Exploratory Fellows, with each fellow receiving a $400 summer stipend.

Implementation Fellows: Faculty participating at this level will attend training sessions and work with support services to implement all of the interventions in regular font listed below, with an option to implement interventions listed in italics as well. In addition, Implementation Fellows will use the C-SET survey tool at least 3 times over the course of the semester to monitor student self-reported growth mindset and belonging. For 2020-21, SEP will support 15 Implementation Fellows, with each fellow receiving a $1,000 summer stipend.

What are SEP interventions?

SEP interventions are organized into 4 broad categories: A. Setting the Classroom Climate; B. Inclusive Assessment and Grading Practices; C. Growth Mindset and Learning to Learn; and D. Virtual and Physical Environment.

A. Setting the Classroom Climate:

- Review and revise their syllabus language to convey messages of growth mindset and belonging.
- Develop welcome messaging to send out a few days prior to the start of the semester, and to present on the first day of class.
- Ice-breakers: develop a welcoming way to introduce themselves to students. Develop ways to have students introduce themselves to the faculty member and/or to each other.
- Rebrand office hours as drop-in availability or help/review sessions to encourage students to attend.

Optional:

- Schedule some of your office hours based on consultation with students via a survey of their availability.
- Stay after class (~15 minutes) in the classroom or a space nearby to answer questions.

B. Inclusive Assessment and Grading Practices:

- Commit to giving, grading and returning the first major piece of graded course work by the end of week 4 at the latest (and earlier if possible)
- Frame feedback after the first major assignment using either WISE feedback strategies, and/or growth mindset language.
- Use the Faculty Early Alerts Student Referral system to identify and pass on information about students who are struggling to access relevant support systems at UNM.
C. Growth Mindset and Learning to Learn:
- Use exam wrappers to help students reflect on their performance and how it relates to their learning process after the first major piece of graded work.
- Implement resources in their course to support student to become better learners.

D. Virtual Environment.
- Use diverse images of people in presentation slides, course materials and in Blackboard LEARN.
- Perform an inventory of their physical and/or virtual environments to assess for negative messaging, and incorporate growth mindset and belonging cues in these areas.
- Learn about and meet best practices for remote courses provided by the UNM Center for Digital Learning

What are the obligations for the SEP fellows?
Exploratory and Implementation Fellows commit to attending a portion of the remote delivery SEP Summer Virtual Convening. This professional development program will introduce instructors to the SEP framework and assessment mechanisms, as well as active learning strategies and culturally inclusive instruction. Fellow faculty from Portland State University, University of North Carolina-Charlotte, University of Toledo, and University of Colorado-Denver, and Colorado State University. This convening will be conducted remotely. The tentative schedule follows.

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<tr>
<th>DATE</th>
<th>TIMES</th>
<th>FORMAT</th>
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<tbody>
<tr>
<td>TBD: 2-hour check-in orientation for Fellows during the week of June 15</td>
<td>10 a.m. – 12 a.m.</td>
<td>Online materials to preview, short workshop, Q&amp;A</td>
</tr>
<tr>
<td>July 14-16</td>
<td>11 a.m. – 3 p.m.</td>
<td>Student Experience Project remote workshops with faculty from 5 other institutions, with many breaks and recordings for those who cannot attend the full sessions</td>
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</tbody>
</table>

Exploratory and Implementation Fellows commit to meeting monthly in a community of practice. These meetings may be more or less frequent as determined by the participants.

All Fellows commit to incorporating their selected level of immersion (at the Exploratory or Implementation levels) in their section(s) of general education or portal course(s) during the Fall 2020, Spring 2021 or Summer 2021.

Implementation Fellows commit to assigning their students the C-SET survey tool – a 5-10 minute survey that can be administered in class or as an online homework assignment, at least 3 times during the semester to monitor student growth mindset, self-efficacy and sense of belonging. We request that instructors provide incentive for students to complete the survey, possibly through points towards the final grade or through extra credit points.
Implementation Fellows commit to allowing observations of students in the class environment by members of the community of practice. These observations are not evaluations of instructor proficiency; they are focused on understanding student response and engagement. Observations will be at the discretion of the instructors, and will be scheduled based on instructor preferences.

Implementation and Exploratory Fellows commit to completing an instructor survey at the conclusion of Summer 2021. This survey will not take longer than 25 minutes to complete.

Implementation Fellows commit to completing a two-page summary of their project at the end of Summer 2021. A template will be provided for the report.

OPTIONAL: If Implementation Fellows would like to share any developed materials with peers at UNM and other institutions, we will provide a module template for doing so. We will post these modules on the Provost Challenge for Excellence and Equity website, and will distribute to other non-UNM sites as appropriate.
What is ECURE?

ECURE (Expanding Course-Based Undergraduate Research Experiences) is an NSF-funded grant designed to leverage UNM’s research mission to enrich undergraduate education in STEM general education\(^1\) and portal\(^2\) courses. ECURE is a program of the General Education Initiative within the Provost Challenge for Excellence and Equity. It is led and supported by Academic Affairs, the Office of the Vice President for Research, the Division of Equity and Inclusion, and the Office of Student Affairs. ECURE is based on the following key concepts:

- Engaging students in undergraduate research (UGR) experiences will positively impact their science literacy, science identity, and research self-efficacy, as well as their likelihood to persist and graduate at UNM.
- Engaging students in UGR in general education and portal courses will allow us to serve more students than co-curricular programming alone, and will help students connect course content to professional, community and research applications.
- Engagement in undergraduate research can be offered at varying levels of research immersion. These levels range from students learning about research without actually conducting research to students implementing all stages of their own authentic research projects (see descriptions of the levels below). All levels of early research immersion are useful to achieving desired student outcomes described above, and to creating more effective and diverse pathways to more advanced co-curricular research engagements within their majors.

To this end, ECURE will support instructors in incorporating UGR components into their general education and portal sections, and will study the impact of these enriched engagements on student perceptions and behaviors.

What are the levels of undergraduate research engagement?

Over the past two years, the UNM Academic Affairs General Education Teaching Fellows UGR Group has developed an expanded course-based undergraduate research experiences (CURE) framework. This framework conceptualizes three distinct levels of student immersion in UGR, all of which will have positive impact on students (see figure below). We believe that each of the three levels of student research immersion will have significant positive stand-alone benefits, but ECURE funding will allow us to measure these impacts across immersion levels and academic disciplines using the same student outcomes.

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\(^1\) Defined as a course that counts towards student general education requirements in a STEM field. For a list of STEM fields, please see: [http://stem.unm.edu/about-stcc/what-is-stem.html](http://stem.unm.edu/about-stcc/what-is-stem.html)

\(^2\) Defined as the first one or two courses students typically complete once they begin their major courses, generally at the 200 or 300 level.
Preparatory Immersion (PREP). In the ECURE Framework, PREP is defined as teaching students how research is conducted (including explaining the connection of foundational skills to research processes), but without actual engagement in research. PREP can be taught in either lecture or active learning environments. Throughout the course of the semester, students in PREP sections will participate in at least ten separate activities, assignments or focused lectures addressing research skills or research-applied foundational skills during the course of an academic term. Examples include teaching students to differentiate between correlation and causation, exploring the value of peer-based literature compared to Wikipedia, or learning how an important course concept is used in solving real-world problems.

Partial Immersion (PARTIAL). In the E-CURE framework, PARTIAL is defined as engaging students in selected components of research, without engaging in all of the essential elements of full CUREs. An example of PARTIAL might include a class where students are provided a research problem by the instructor (rather than identifying one themselves), are provided a summary of existing knowledge (rather than conducting their own lit reviews), are provided with a research method (rather than selecting their own), are required to collect & analyze data individually, and report their findings to the instructor in a research journal (rather than sharing with research peers). Throughout the course of the semester, students in PARTIAL sections will engage in at least two research steps, where students ask or answer questions to which the answers are unknown. These research steps will be defined by the instructor, as appropriate for their academic discipline. One example of research steps from the University of Houston includes: Define the problem, Review the literature, Form problem statement, Select research design, Carryout the research, Interpret research, Report the research, and Repeat. We define “answers are unknown” as the divergent experiences, with multiple possible correct results, rather than convergent experiences, with single or limited correct results. The instructor may know which results are most likely, but not which results are pre-determined if the research is conducted correctly.

Full Immersion (FULL). FULL experiences fit the traditional definition of CUREs, where students participate in authentic research experiences. In FULL experiences, students participate in all stages of
the research project. These projects should not be individual or independent projects. They should be group-based projects, where each student participates in all of the stages. In general education and portal courses, these projects will most often be small research projects. As with PARTIAL, the research steps will be defined by the instructor, as appropriate for their academic discipline. In addition, to some extent the research projects should include all of the elements in the following table.

<table>
<thead>
<tr>
<th>Elements of Undergraduate Research</th>
<th>Description</th>
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<tbody>
<tr>
<td>Scientific practices</td>
<td>Uses generally accepted scientific practices to answer research questions</td>
</tr>
<tr>
<td>Discovery</td>
<td>Generates new knowledge, insights or understanding (&lt;u&gt;focuses on questions where the answers are unknown&lt;/u&gt;).</td>
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<tr>
<td>Broadly relevant or important work</td>
<td>Findings are meaningful and important beyond the classroom</td>
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<tr>
<td>Collaboration</td>
<td>Involves teams of researchers working together</td>
</tr>
<tr>
<td>Iteration</td>
<td>Builds upon previous research and current knowledge</td>
</tr>
</tbody>
</table>

Questions? While the ECURE model is flexible to meet the needs of instructors in different course types (lectures, labs, active classrooms) in different academic disciplines, it is likely you have questions about how this framework would fit with your plans and goals for your own sections. We would love to chat with you about your ideas, so please contact Tim Schroeder (ECURE Director) at <a>timschroeder@unm.edu</a> to arrange a virtual chat via Zoom. We will also hold Zoom-based Q&A sessions the weeks of April 27 and May 11, 2020. Contact Tim Schroeder for session dates and times.

What are the types of ECURE fellowships, and how are they compensated?

For 2020-21, ECURE will support 15 Implementation Fellows and 8 Exploratory Fellows. Implementation Fellows will develop and implement ONE of the three levels of immersion in at least one section of a STEM general education or portal course in the Fall 2020, Spring 2021 and/or Summer 2021. Each Implementation Fellow will receive a $4,000 summer stipend. Exploratory Fellows will explore the use of the ECURE framework in their courses by observing their peers implement projects, but will not commit to an implementation themselves. Exploratory Fellows will be encouraged to apply as Implementation Fellows next year, if they feel this is an appropriate framework for their course(s). Exploratory Fellows will receive a $1,000 summer stipend. Starting in summer 2021, former Implementation Fellows will also be encouraged to apply as Publication Fellows. Publication Fellows will be supported in submitting their course project findings and results for publication.

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What are the obligations for the ECURE fellows?

Implementation Fellows and Exploratory Fellows commit to attend the virtual ECURE Summer Institute between July 13th and August 7th, with synchronous sessions scheduled only on Monday afternoons during this timeframe. All other engagements during the Summer Institute will be asynchronous, and can be arranged to meet your individual schedule. You should expect to spend 10-15 hours per week on the ECURE Summer Institute between July 13 and August 7. This professional development program will introduce instructors to the ECURE framework and assessment mechanisms, as well as active learning strategies and culturally inclusive instruction.

Implementation Fellows and Exploratory Fellows commit to meeting monthly with their community of practice (PREP, PARTIAL or FULL). These meetings may be more or less frequent as determined by the participants. Fellows will also have the option to participate in asynchronous online discussions with their UGR peers at UNM.

Implementation Fellows commit to incorporating their selected level of immersion (PREP, PARTIAL or FULL) in their section(s) of STEM general education or portal course(s) during the Fall 2020, Spring 2021 or Summer 2021.

Implementation Fellows commit to assigning their students to complete an ECURE pre and post assessment survey. This survey will not take longer than 30 minutes to complete, and can be assigned as an in-class activity or as out-of-class homework. We request that instructors provide incentive for students to complete the survey, possibly through points towards the final grade or through extra credit points.

Implementation Fellows commit to allowing classroom observations by members of the community of practice, and ECURE staff/researchers. These observations will be at the discretion of the instructors, and will be scheduled based on instructor preferences. Exploratory Fellows commit to observing at least three classroom sessions in Fall 2020, Spring 2021 and/or Summer 2021.

Implementation and Exploratory Fellows commit to completing an instructor survey at the conclusion of Summer 2021. This survey will not take longer than 25 minutes to complete.

Implementation Fellows commit to completing a two-page summary of their project at the end of Summer 2021. A template will be provided for the report.

OPTIONAL: If Implementation Fellows would like to share their curriculum modules with peers at UNM and other institutions, we will provide a module template for doing so. We will post these modules on the ECURE website, and will distribute to other non-UNM sites as appropriate.