

The Integrated Community-Engaged Learning and Ethical Reflection (ICELER) Faculty Learning Community Curriculum: 2018-2022

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Introduction

The Integrated Community-Engaged Learning and Ethical Reflection (ICELER) project was funded under the NSF's Cultivating Cultures for Ethical STEM program ([Award #1737157](#)) in 2017 as a five-year institutional transformation grant (see Fore et al., 2018). The ICELER project approaches institutional transformation in teaching and learning on multiple levels including individual and departmental. To effect changes at these two levels, the research team used a faculty learning community (FLC) as a core intervention in the project. This document provides background information on the curriculum used in this FLC, including descriptions of the design features and activities. This report includes an appendices section as well that includes sample assignments and tools used over the four years that the FLC was active. We present this report as a resource for those interested in learning from, replicating, or adapting it for their own work with faculty.

ICELER Instructional Design Framework

The ICELER FLC was designed to support faculty participants as they worked to transform a course, or a portion of a course, to align with the ICELER Instructional Design Framework. The key components of the ICELER Instructional Design Framework, as the name suggests, include community-engaged learning and ethical reflection. First, ICELER courses need to provide meaningful community-engaged, place-based experiences with community partners or to provide civic-rich experiences. Over time, community became broadly conceptualized to be inclusive of both human and more-than-human actors/actants. Second, ICELER courses also needed to integrate critical reflection strategies [written, oral, visual, embodied, etc.] to support the metacognitive processing of experiences inside and outside the classroom, which aligned with course/program level ethics learning objectives.

The faculty introduced ethical concepts through a range of course activities (readings, lectures, labs, videos, dialogues, field experiences, etc.). Associated reflection activities directed students to apply their understanding of these concepts to direct and simulated civic-rich, community-engaged, and community-based experiences. Faculty experimented with developing guided prompts to support students to do three or more of the following:

- identify ethical dimensions in these experiences, both those based on course material but those drawn from their own lived experiences, values, and sense of purpose.
- examine these ethical dimensions as individuals and/or in groups.
- surface embedded tensions and contradictions within the experience(s) at the intersections of professional and moral values at the individual, class, professional and societal levels.
- make visible how students converged/diverged on their views and foster discussion and dialogue directed toward consideration of implications for personal and professional ethical practice.
- Consider the ripple effects of individual, professional and societal ethics on individual & collective outcomes.
- Identify and clarify plans for future action.

In sum, ICELER courses are expected to offer authentic disciplinary experiences that students can reflect upon through critical/ethical frameworks. At the end of the first year of the FLC, participants were to have identified an existing course and enhanced it in conversation with the ICELER instructional design framework.

ICELER Faculty Learning Community Goals

Relative to the grant's goals, the FLC served three key purposes:

1. The FLC provided a space where faculty, representing individuals occupying both research and teaching appointments, could step away to examine and reflect on their individual assumptions about teaching generally, and ethics instruction and community engagement specifically. Participating faculty then applied new insights to their individual STEM courses with an emphasis on applying and iterating on the ICELER Instructional Design Framework to support students' ethical growth and development. Faculty documented their ICELER work (e.g., course enhancements, reflective essays) in portfolios that were revised and expanded at the end of each academic year. During later years of the FLC, faculty developed departmental presentations that detailed next steps regarding the transformation of their respective departments into hubs for scholarly values, engaged learning, and ethical growth.
2. Participating faculty were able to engage in shared conversations about STEM ethics teaching and learning beyond the course level providing opportunities to develop a shared understanding of department level learning outcomes related to ethics, to work together to develop new norms and expectations for how they approached program level curriculum planning and assessment. This process included consideration of how the faculty could work together to scaffold and sequence complementary instructional practices like service learning, civic rich experiences (cf. Musil, 2015) across courses.
3. The FLC provided an opportunity for the research team to investigate methods, tools and processes that would facilitate STEM faculty growth and contribute to organizational change.

FACULTY RECRUITMENT

For the ICELER FLC, the research team focused on recruiting multiple members from two departments over a period of four years. This design was intended to cultivate a critical mass of faculty within each unit that could work collaboratively to sustain, deepen curricular innovations as well as cultivate a faculty leadership collective that could advocate for additional structural, policy, and curricular changes at the departmental level beyond the grant period. The research team recruited faculty from two departments: Earth Sciences (ES) and Biomedical Engineering (BME) to participate.

A key dimension of FLCs generally is the practice under inquiry. That is, those action points, habits, and norms around which the community works to develop, share, and transform

its knowledge. In the ICELER project, the practice under inquiry was the faculty's instructional practices and each departments' program level curricular practices.

Recruited faculty shared a desire to improve the quality of teaching and learning on ethics in their departments. Each faculty brought varying degrees of curiosity as well as anxiety and doubt, regarding how a focus on ethics, critical reflection, and community-engaged learning might support their goals. Additionally, participating faculty varied in their philosophies of learning and the degrees to which they saw their work in teaching as a central aspect of their social identities as academic professionals. These differences were expressed as differences in the values about what constitutes good teaching and learning, as well as the appropriate roles of faculty, students, and off campus community members and professionals in the learning process. There was also variation in the degree to which participating faculty believed that reflection could be considered a rigorous and assessable method of generating learning and knowledge.

To encourage buy-in by each departmental team, the grant team also worked to integrate department chairs into the work of the grant. Chairs took an active role in recruitment efforts, and they were also invited to annual presentations by the FLC participants, as well as being part of stakeholder interviews held during the grant period.

DESIGN CONSIDERATIONS

Considering the intersection of faculty development goals (i.e., intervention) with the student, departmental, and institutional outcomes (i.e., research) of the project, senior personnel on the ICELER project developed a Theory of Change (TOC) (see [Price et al., 2022](#)) for the FLC. The TOC became a touchstone to connect the work of the FLC to formal change theories and to promote intended outcomes (i.e., project goals), as well as to support the multidisciplinary team in translating the ICELER Instructional Design Framework into a pilot FLC curriculum.

In translating the annual goals into a four-year FLC curriculum, the team drew upon experiential learning theory (Dewey, 1938/1998; Kolb & Kolb, 2017), transformative learning theory (Mezirow, 1991, 2012), as well as research and scholarship related to faculty professional agency (Campbell and O'Meara, 2014), community-engaged scholarship (O'Meara, 2012, 2015) and faculty as co-learners (Eatman, 2018) to develop session plans and design the curriculum goals.

The overarching design of the FLC curriculum was built on the logic that successful faculty development cannot be accomplished through a single workshop or even a series of loosely connected workshops. Rather, a community needed to be established that could foster a deeper fellowship among its members. In the design logic for the ICELER project, faculty development occurred over a long period (i.e., multiple years), where meetings were regularly convened and connected in such ways that personal and collective growth arose from the continuity of shared experience. For this reason, our team chose to design an FLC experience in which participants would engage with faculty in their own departments and with faculty in one other department over four years. This timeline gave our team the freedom to design FLC curriculum capable of covering the nuances of ethical being and becoming, teaching ethics,

crafting reflective strategies for critical reflection assessments, engaging community partners, and departmental transformation.

Several members of our ICELER team also joined the FLC as participant-observers and/ or facilitators through the project. The TOC, and specifically, the annual goals developed based on the TOC served as a helpful planning reference in the design and scaffolding for each FLC meeting and resulting in the pilot ICELER FLC Curriculum.

ICELER FLC Curriculum

The remainder of this document describes the four-year curriculum developed through the iterative process developed by the research team. This section of the document is organized by FLC year. For each year, we offer a brief narrative outlining annual goals, session level objectives as well as some framing comments on context. In addition, we have provided a summary table detailing meeting information for each year, as well session level activities, key readings, key assignments as well as information on how each session aligns with the ICELER FLC Theory of Change (see [Price et al., 2022](#)). These tables are in the Appendices. The team also developed session level facilitation plans for each session. These plans, however, are not included in the Appendices.

FLC - YEAR 1

GOALS

The project team identified four goals to guide curriculum development during the inaugural year of the FLC (2018-19). These goals included:

1. FLC facilitators provided guidance and support as FLC members *examined* themselves as ethical subjects, their values, their identities as educators, and their assumptions regarding what constitutes good teaching and the learning of ethics.
2. The FLC structure and curriculum aimed to *build community*. This goal highlighted creating opportunities for experimentation, dialogue, and sense-making, as well as supporting each department to work toward the development of shared curricular products (e.g., syllabi, modules, lesson plans, reflective strategies, and assessments).
3. FLC facilitators strove to assist faculty to *build confidence*. The curriculum included self-assessment activities, discussion, presentations, and readings that invited faculty members, individually and as a department to describe their orientation to teaching and experiential learning, giving reference to how they currently taught ethics, utilized critical reflection, and conceptualized academic community engagement. This information was used to identify stretch goals where individual faculty and departments wanted to improve and/or innovate. Over the course of the year, participants were introduced to ethical frameworks and critical reflection models and had opportunities to test these frameworks and models.
4. Faculty were accompanied as they *stretched* themselves to apply what they were learning by integrating ethical inquiry into an existing course, and to assess how their application influenced student engagement and student learning.

ACTIVITIES AND TIMELINE

The major activities for Year 1 consisted of nine, two-hour meetings with ES and BME faculty. A summary of the year's activities is presented in **Table 1**.

After an FLC kick-off meeting on 27 February 2018, eleven faculty (five from ES and six from BME) attended the first FLC meeting (23 August 2018). These eleven individuals continued to participate in the Community for the entire year. Based on preliminary assessment information gathered at the 27 February meeting, the team modified the initial curriculum plan for the first year of the FLC. A majority of the participating faculty had indicated significant anxiety about the prospects of integrating ethics, both because of a lack of comfort with the topic and because they perceived that integration would require forcing more content into already packed courses. In addition, a few had openly stated that they were struggling to see how community members might contribute meaningfully to their students' STEM learning. With these concerns in mind, the research team refined the curriculum to begin with an examination of faculty selfhood and professional identity in relation to ethics and education, rather than begin with skill-focused instructional development in workshop-type sessions.

While the implemented curriculum did address questions of the relationship between science, democracy, and education, the research team opted to defer direct attention to concepts, theories, and best practices for community-engaged pedagogy until the second year of the FLC. Instead, the team prioritized supporting the faculty as they endeavored to examine inhibiting assumptions about teaching ethics, to understand their ethical values and commitments as educators, and to articulate their new understanding in a way directly relevant to their pedagogical practice. Hence, the curriculum emphasized understanding concepts and tools related to ethical inquiry and reflection and relating this to their individual teaching practice and to norms and expectations within their specific fields.

Sessions throughout the Fall emphasized the exploration of each faculty's values, their identities as educators, and how their individual sense of self as an educator intersected with their understanding of themselves as academic professionals more broadly. A key facet of this self-examination was how they conceptualized and taught ethics. Meetings began with a consideration of the moral character of an individual teacher and then broadened the context to consider what good teaching is in the context of STEM and the connection between individual and professional values. The research team considered the still broader community contexts and the meaning of professional duties to various publics. Next, the FLC analyzed what this variety of contexts and values meant for students as future STEM professionals. This set the agenda for the second semester in which different resources for instruction and assessment were examined and implemented to integrate ethics into STEM curriculums. As part of the spring scope of work, department teams had opportunities to work together to examine these issues at the program level. For example, in the 18 January 2019 session, each department met as a team to discuss their responses and work through a collective outcomes mapping activity at the program level to generate a program level set of values and outcomes for what they imagined the Ethical Geoscientist or Biomedical Engineering graduate to be. Introducing principles of critical reflection and linking those to ethical inquiry became the focus of the FLC session on the spring (**Appendix E**). At the final meeting of the year on 19 May 2019, each department presented their revised curriculum maps, and the faculty shared their first iteration of their ICELER course plans. These plans were translated into a portfolio that the faculty submitted and would update over the course of the project (**Appendix A**).

FLC - YEAR 2

GOALS

For year 2 of the FLC (2019-2020), the project team identified five goals. These are outlined below:

1. Meetings were designed to support participants as they sought to *apply* the knowledge, they acquired during Year 1. During Year 2, faculty implemented their first ICELER course and learned from course feedback both from students and from discussions during Community meetings.
2. The curriculum aimed to *broaden and deepen* faculty 1) understanding of ethical frameworks (i.e., ethical inquiry and action) and scaffold ethics learning opportunities at both the course and program levels, 2) confidence regarding the design and assessment of critical reflection, 3) awareness of the scope of civic learning [attributes of experiences and as ethics related learning objectives], and 4) comfort with developing rapport and establishing relationships with community partners.
3. Session plans were designed to offer participants opportunities to *iterate* on their ICELER courses. The FLC provided a forum for faculty to reflect upon ICELER assessment and education research data, gathered by them as the project team, toward the revision of their courses. These revisions were to focus on improving measurable outcomes, as well as the faculty member's approach to building relationships with community partners and co-teaching with them.
4. The FLC curriculum was structured in such a way that faculty were supported to *hold creative tension*. This means that throughout this year of the FLC, participants needed to negotiate their own cognitive dissonance, embrace their uncertainty and the ambiguity associated with community-engaged ethics teaching, and balance their personal and professional values and commitments.
5. The FLC also provided a space for faculty to find encouragement and explore opportunities for *disseminating* their ICELER learnings both internal and external to the university.

ACTIVITIES AND TIMELINE

The second year of the FLC (2019–20) had two central aims: to support implementation of ICELER courses by participating faculty; and to give more theoretical depth and practical guidance to community-engagement as ethics education. There were nine major activities in year 2. A summary of the year's activities is presented in **Table 2**. The first seven activities were organized group sessions, typically two hours in length, that ran from September 2019 to April 2020 and included facilitated discussions, site visits to community partners, and invited lecturers. The two final activities were, first, one-on-one interviews with FLC members about the ICELER course each had implemented. During this year of the FLC, the team had to pivot to a fully online FLC format as this year corresponds to the beginning of the COVID pandemic. For example, submission of final reports and presentations was delayed

until 17 August 2020. During this online meeting each departmental group created a PowerPoint, with voiceover, in which they reported on faculty implementation of ICELER courses. In addition, individual faculty updated their portfolios reflecting on their progress, their developing sense of themselves as educators and their use of critical reflection.

The second year's curriculum built on the first's by supporting FLC members' that implemented ethics education in their 2019–20 courses, but it went beyond helping faculty assess and modify their initial revisions and expanded the potential for further revisions. The second-year curriculum focused on concepts, theories, and practices for community-engaged pedagogy and presented FLC members with examples of opportunities for community-engaged learning. As the result of Year 1, many FLC members reported gaining both confidence and increased understanding regarding how they could strengthen the integration of ethics into their course designs. Similarly, the second year was intended to further this effect to include increased confidence in and understanding of community engaged learning, both direct engagement as well as civic rich classroom-based experiences, as a vital element of ethics education.

Activities for the Fall 2019 semester considered ethics education in community settings by, first, reflecting on present assumptions and practices for community engagement and providing opportunities relevant to STEM to reimagine what's possible and relevant in STEM teaching and learning; This preliminary work included completing an instructional self-assessment focused on service learning (**Appendix F**).

Another way the faculty were encouraged to connect community engagement, civic rich experiences and ethics education was by visiting a community-based youth development organization that practices ethical reflection and then, to make observations about the strategies the community educators used. Finally, the FLC worked on developing critical reflection assignments that would aid students in connecting classroom and/or community experiences and relationships to ethical inquiry (**Appendix E**). Some of the introductory content for the sessions on community engagement, service learning and civic learning introduced using a flipped classroom approach whereby content was presented in short online presentations and the FLC meetings were reserved for active problem solving. Activities in the Spring 2020 semester continued exploration of these themes in ways that engaged FLC members' experience more directly. They met with potential community partners doing work relevant to their disciplines for an open conversation; they practiced critical reflection on that experience and met with a scholar in ethics and community engaged education to discuss written reflection and ethics assignments in their own courses; and they considered the challenges and opportunities presented by the unexpected campus closure and move to online teaching.

FLC - YEAR 3

GOALS

The project team developed five goals for the third year of the FLC (2020-21). These included:

1. Faculty were to ***apply and iterate***. This means that they were expected to apply evidence-based enhancements to their ICELER courses, prepare to collect additional data

throughout the second iteration of the courses, and enhance their use of community-engagement and/or civic-rich learning experiences in their ICELER courses.

2. Faculty were challenged to *broaden and deepen* their understanding of 1) the connections between ethics and technical content; 2) pedagogical approaches for engaging students in ethical inquiry and action; 3) frameworks for integrating and assessing critical reflection; and 4) frameworks for ethical community engagement.
3. The goal to *hold creative tension* was carried over from the previous year and remained the same for Year 3.
4. Year 3 included a goal for faculty to *disseminate* ICELER outcomes internal to the university but beyond the confines of one's home department, as well as external to the university.
5. Faculty were encouraged to *promote STEM ethical communities*. This means that faculty were challenged to engage in collaborative work to establish a culture of ethical inquiry on campus through interaction with other faculty and administrators. These interactions were to include the sharing of evidence based ICELER practices.

ACTIVITIES AND TIMELINE

Two broad aims guided the FLC's Year 3 curriculum. First, the FLC meetings should be structured to support members to examine and refine their implementation of ICELER courses. Second, meetings should support and encourage FLC members to take on leadership roles within the FLC to further local project ownership and sustainability of the changes as well as inspire further changes among colleagues toward institutionalizing classroom and departmental ICELER practices.

There were five major FLC activities in Year 3 of the FLC. A summary of the year's activities is presented in **Table 3**. The first four activities were FLC group meetings that included pre-assigned reading and reflection activities, in-session small group conversations, and presentations on teaching practices and resources. Topics of these sessions focused on examining roadblocks to the teaching of ethics in STEM courses, ways of coping with uncertainty in the classroom, teaching as an ethical/virtuous and civic activity, and the values and assumptions brought to one's teaching and how those might impact one's willingness to integrate engaged learning approaches. The fifth activity was a year-end meeting that included the ICELER Advisory Board, where each departmental group of FLC members reported on their implementations of ICELER courses and how well their courses mapped to the Profiles of Learning for Undergraduate Student Success. Individual FLC members submitted revised teaching portfolios and guided reflection essays to the ICELER team a couple weeks later (**Appendix C**).

FLC - YEAR 4

GOALS

The fourth and final year of the ICELER FLC (2021-22) intended to advance three goals (see [Price et al., 2022](#)). These goals were to:

1. Challenge faculty individually and as critical mass within their departments to *sustain momentum* to refine and grow the teaching and learning of STEM ethics through engaged pedagogies. This included a rigorous departmental self-assessment that interrogated institutional climate and policy and how each might hinder or facilitate the further development of ICELER work.
2. Encourage and support faculty to further their openness, curiosity and skill related to the *assessment and refinement* of their ICELER courses. This included supporting faculty analysis of student reflection products produced in their ICELER courses; as well as collective assessment and benchmarking of their department using departmental climate tool. Combined, these analyses could then be used to further develop ICELER courses and to create a departmental action plan, respectively.
3. *Promote STEM ethical communities.* This goal carried over from the previous year and included nurturing intentional integration of engaging students and community stakeholders as active partners in the improvement of ICELER courses, departmental curriculum, and partnerships.

ACTIVITIES AND TIMELINE

There were three primary aims for this culminating year. First, the design of FLC meetings centered on focusing faculty attention on strategies and tactics they could deploy that would aid the long-term sustainability of ICELER in each department. To this end, the research team asked the teams to develop action plans that would enable them to continue to (1) prioritize and advance engaged teaching and ethics education in their curricula and (2) encourage collective work to attend to dimensions of departmental climate and culture necessary to sustain and deepen integration of ICELER at the department level.

The action planning process took several months and was addressed during several of the community meetings. To anchor this process faculty were introduced to and used a formative assessment rubric adapted from prior work devoted to capacity building of community engaged departments (Kecskes, et al. 2006; Kecskes, 2013; 2015). The research team updated and revised the original rubric to include more explicit attention to diversity, equity, and inclusion as well as to include more explicit references to criteria specific to STEM ethics. The resulting rubric is called the *ICELER adapted Engaged Department Rubric* (Price, et al., 2021; **Appendix G.**). The rubric is designed to foster departmental reflection of resources and support for and success in pursuing ICELER goals of ethics education and community engagement. The rubric conceptualizes engaged departments in terms of six dimensions of community engagement: (1) mission and culture; (2) faculty support; (3) community partner, partnership support; (4) student support; (5) organizational support for community engagement; (6) leadership support. The rubric was shared with departmental chairs, who completed the assessment. Department chairs then shared the rubric with their peers, who completed it individually. Participants were asked to rate their departments on each dimension based on *actual* versus *desired* ratings. Research team members compiled results. The comparative results were made available to department chairs and FLC participants so they could review their ratings together as departmental teams and set goals. In addition to the work with the rubric, there were two additional aims. The second aim was dedicated to supporting faculty to initiate or continue dissemination of their successes in implementing ICELER courses including the Online Ethics Center as well as joint conference

presentations and publications. The research team continued to provide data collected from the project related to courses, offer consultative support, and serve in co-author/co-presenter roles in support of this effort. Finally, the research team wanted augment faculty comfort and comfort and confidence further regarding assessing students' ethical reflection assignments.

There were six major ICELER activities – four of which were FLC meetings – that occurred in the final year of the FLC. A summary of the curriculum is presented in **Table 4**. Three of the four activities focused on completing and discussing the ICELER adapted Engaged Department Rubric (**Appendix G.**), as well as working with department chairs to ensure faculty buy-in for the rubric's self-assessment process.

The final meeting of the FLC occurred in person and included not only the FLC but also the grant advisory board, professional colleagues, administrators, and community members. FLC members presented their departmental action plans for sustaining community engagement and ethics education. Following the presentations, the remainder of the session was organized using a blend of two participatory methods, [World Café](#) and [15% Solutions](#). The methods were used to enable both departments to receive feedback on their draft action plans as there was time built in for the teams to refine their ideas before final submission was due. A graphic facilitator was contracted to capture themes generated in a qualitative format. Each department submitted a final version of their action plan and individual faculty members submitted their final version of their teaching portfolios and essays (**Appendices**).

The remainder of this document is dedicated to presenting the curriculum tables for each year of the FLC. It also includes a selection of resources and support materials (**Appendices**) that the research team used in facilitating the Community.

FLC Curriculum Tables

Table 1. ICELER FLC Curriculum Table – Year 1 (2018-19).

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
<p>Session 1: Thursday 23 August 2018</p> <p>Theme: <i>Teaching Who We Are</i></p>	<ul style="list-style-type: none"> • Understand overall project aims. • Discuss our standards and practices of good teaching. • Identify our community norms and expectations for FLC. 	<ul style="list-style-type: none"> • Examine: 1.E.1 -2 • Build Community: 1BC.1 	<p>Pre-Session</p> <ul style="list-style-type: none"> • Read Parker Palmer (2017), <i>"The Heart of a Teacher"</i> • Write responses to questions and post online for group to review. <p>In Session</p> <ul style="list-style-type: none"> • The research team introduced the project and aims including a map for Year 1 of the FLC • FLC members were presented with pole questions regarding the nature of good teaching and then debriefed their responses. As part of the activity, the faculty were asked to physically move toward signs in the rooms marking the poles. After the discussion, they were invited to relocate themselves along the poles. • The rest of the time was spent discussing the Palmer reading.
<p>Session 2: Tuesday 18 September 2018</p> <p>Theme: <i>Making Explicit Values in Our Work</i></p>	<ul style="list-style-type: none"> • Describe the importance of values in faculty work. • Articulate our own scholarly values. • Discuss our values considering how our disciplines frame “good science.” • Draw connections between our scholarly values and our roles as teachers. • Identify points of convergence/divergence between our scholarly values and those of our colleagues 	<ul style="list-style-type: none"> • Examine: 1.E.1, 2, 4 • Build Community: 1BC.1 • Build Confidence: 1BCN.1 - 2 	<p>Pre-Session</p> <ul style="list-style-type: none"> • Read <i>"Socially Responsible Science is more than 'Good Science' by Stephanie Bird (2014)</i> and respond to the prompts provided. • Complete Scholarly Identity Map, Part I (Price, 2018); create and submit draft electronically; bring hard copy to FLC meeting. <p>In Session</p> <ul style="list-style-type: none"> • The session opened with a prompt to consider the relationship between facts and values, as a springboard for discussing the Bird article. • Then the FLC and research team members presented their Scholarly Values Maps to discuss the scholarly values that faculty bring into their teaching and to make visible the range of values present within members of each dept.

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
<p>Session 3: Tuesday 16 October 2018</p> <p>Theme: <i>Scholarly Identity and Public Purposes</i></p>	<ul style="list-style-type: none"> Describe the public purposes and values that inform our work as faculty [with specific reference to teaching]. Discuss the ways in which we as faculty engage our values to produce public goods. Discuss our values considering how our disciplines frame “good science”. Draw connections between our scholarly values and our roles as teachers. Identify points of convergence and divergence between our scholarly values and those of our colleagues. 	<ul style="list-style-type: none"> Examine: 1.E.1 - 4 Build Community: 1BC.1 Build Confidence: 1BCN.1 - 2. 	<p>Pre-Session</p> <ul style="list-style-type: none"> Participants review Canvas responses from the Bird reading. Read “Questioning the Answers.” by Scott Peters et al. (2010) and respond to the prompts provided in Canvas. Participants reviewed their draft Scholarly Identity Maps from the previous session and then revised them based on instructions and template for Scholarly Identity Mapping, Part 2 (Price, 2018); then, submit revised map to Canvas and bring hard copy to FLC meeting. Each member invited to bring example from their teaching (syllabus, lecture topic, assignment, reading, activity, etc.) that makes visible to students (1) their discipline's understanding of good science; (2) the role(s) that science and scientists play in contributing to the public good; and (3) the values shaping how good science contributes to the public good. Each member was expected to come prepared to discuss the readings and share their rationale for selecting the item chosen. <p>In Session</p> <ul style="list-style-type: none"> The group reviewed the ways faculty engage in public purposes and in particular, ways in which faculty view their work as part of democratic society. The faculty shared their identity maps and then engaged in a facilitated discussion re: <ul style="list-style-type: none"> What constitutes “good science” and who gets to determine the answer? Values within the cohort as it relates to good science and the public good. Implications for students in the major.
<p>Session 4: Thursday 15 November 2018</p> <p>Theme: <i>Making Explicit Values in the Curriculum</i></p>	<ul style="list-style-type: none"> Understand sources and nature of ethical inquiry. Recognize the distinction between values and moral values. Understand families of moral values. 	<ul style="list-style-type: none"> Examine: 1.E.1 - 4 Build Community: 1BC.1 Build Confidence: 1BCN.1, 2,4 	<p>Pre-Session</p> <p>The FLC was directed to watch the video. “The ethical question and ethical inquiry”, and then:</p> <ul style="list-style-type: none"> Consult the following documents that articulate the basis for important ideas expressed in the video: Outline of John Dewey (1988), <i>“Reconstruction in Moral Conceptions,” Reconstruction in Philosophy</i>; excerpts from

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
	<ul style="list-style-type: none"> Identify values and moral values in your own course or discipline. 		<p>Martha Nussbaum (1990), <i>Introduction: Form and Content, Philosophy and Literature</i>, "Love's Knowledge"</p> <ul style="list-style-type: none"> Read Chapters by A. Weston (2008 a, b), <i>Ethics as a Learning Experience</i>, & <i>Taking Values Seriously</i>. Using the distinction between values and moral values and the scheme of four families of moral values, analyze the values and moral values (both implicit and explicit) found in one of the three these three sorts of texts: an assigned text from a course you teach that you think expresses moral values; an assigned text from a course you teach that you think is devoid of moral values; a code of ethics or mission statement from a professional organization in your discipline Optional: Read M. Specter (2018). <i>Rewriting the Code of Life</i>. <p>In Session A member of the research team gave a lecture on ethics and then lead the FLC through a discussion of the readings.</p>
<p>Session 5: Tuesday 18 December 2018 (Social meeting)</p>	<ul style="list-style-type: none"> Community building 	<ul style="list-style-type: none"> Build Community: 1BC.1. 	<p>Pre-Session None</p> <p>In Session The research team and FLC members met in the community for an informal social gathering to further build rapport across the two departments and between the research team and cohort members.</p>
<p>Session 6: Friday 18 January 2019</p> <p>Theme: <i>Connecting Values to ICELER</i></p>	<ul style="list-style-type: none"> Describe the distinction between learning goals and learning objectives. Describe the characteristics of effective learning objectives. Describe classes of learning goals in STEM ethics. Identify ethics learning objectives in your own courses 	<ul style="list-style-type: none"> Examine: 1.E.3 - 4 Build Community: 1BC.1 - 2. Build Confidence: 1BCN.1 -2, 4. 	<p>Pre Session The FLC was instructed to: review J. Hess and G. Fore (2018), <i>A Systematic Literature Review of US Engineering Ethics Interventions</i>. Then, working individually, each member was to develop a concept map that addressed the following prompt:</p> <p><i>From the lens of your program, describe what makes an ethical geoscientist or biomedical engineer.</i></p> <ul style="list-style-type: none"> In addition to posting their maps, faculty were asked to come to see with responses to the following prompts based on their maps and considering the ICELER they were designing.

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
			<ul style="list-style-type: none"> How have students practiced ethics or ethical inquiry in this course in the past? Based on your concept map, draft one or more ethics-specific learning goals for your course Considering where your course sits within your program, what level of ethics learning is needed for the draft goal(s) you have identified: (1) introductory, (2) developing, or (3) mastery. <p>In Session Each department met as a team to discuss their individual responses then work through an activity to generate a program level values and outcomes map.</p>
<p>Session 7: Friday 22 February 2019</p> <p>Theme: <i>Critical reflection and experiential learning</i></p>	<ul style="list-style-type: none"> Recognize the role of critical reflection in generating all categories of learning. Consider the kinds of evidence that students have improved ethical reasoning capabilities. Consider the kinds of evidence that students can use to translate ethical reasoning into ethical actions. Outline learning plans that promote critical reflection and experiential learning. Outline a reflection strategy for student assignments that yields evidence of student learning. 	<ul style="list-style-type: none"> Examine: 1.E.3 – 4. Build Community: 1BC.1. Build Confidence: 1BCN.1 - 4. Stretch: 1.S.1. 	<p>Pre Session The FLC was assigned to read the following items and then respond to guided questions online for the group to review and comment on:</p> <ul style="list-style-type: none"> S. Ash and P. Clayton (2009), <i>“Generating, Deepening and Documenting Learning: The Power of Critical Reflection in Applied Learning.”</i> R. Sternberg (2010), <i>“Teaching for Ethical Reasoning in Liberal Education.”</i> ACC&U (2009). <i>“Ethical Reasoning VALUE Rubric.”</i> <p>• Then, READ ONE of the following applications of critical reflection in the experiential classroom:</p> <ul style="list-style-type: none"> L. Kniffin, K. Priest, P. Clayton (2017), <i>“Case-in-Point Pedagogy: Building Capacity for Experiential Learning and Democracy.”</i> E. Brooks, C. Harris, P. Clayton (2010), <i>“Deepening Applied Learning: An Enhanced Case Study Approach Using Critical Reflection.”</i> <p>In Session</p> <ul style="list-style-type: none"> Active work in departmental teams to complete ethics learning objectives mapping activity using Force Field Analysis activity. Discussion of assumptions regarding and comfort/discomfort with reflection

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
			<ul style="list-style-type: none"> • Introductory lecture on critical reflection
<p>Session 8: Friday 22 March 2019</p> <p>Theme: <i>Evidence of Ethical Reasoning and Ethical Reflection Strategies for Assignments</i></p>	<ul style="list-style-type: none"> • Critically reflect on and create personal meaning from experiences. • Identify moral situations and potential value conflicts within experiences. • Design reflection and facilitation strategies to capitalize on experience(s) • Appraise a reflection assignment based on the DEAL model of critical reflection. 	<ul style="list-style-type: none"> • Examine: 1.E.1 - 4 • Build Community: 1BC.1 • Build Confidence: 1BCN.2 - 4 • Stretch: 1.S.1 - 2 	<p>Pre Session Participants asked to</p> <ul style="list-style-type: none"> • Review the features of moral situations and ethical inquiry. • Listen to podcast by S. Adler (2018). “Post No Evil.” • Respond to discussion questions about their experience of listening to the podcast and then link their experience to apparent moral situations and opportunities for ethical inquiry they noted in the podcast. <p>In Session</p> <ul style="list-style-type: none"> • In lg. group, the FLC reviewed the situation discussed in the podcast to examine the results of their own structured reflection on the assignment that were relevant to ethics learning and community engagement; the group then discussed what they could draw from their own learning to apply to their ethics teaching. • Short lecture on developing reflection strategies including a guide to aid them in designing their own.
<p>Session 9: Friday 19 April 2019</p> <p>Theme: <i>Backwards Design, Experiential Learning, and Reflection Strategies</i></p>	<ul style="list-style-type: none"> • Draft an ethical reflection strategy consistent with the four C’s of Critical Reflection. • Troubleshoot and talk through key questions regarding reflection strategies. • Give feedback on colleagues’ course level reflection strategies and review concepts and resources 	<ul style="list-style-type: none"> • Examine: 1.E.3 - 4 • Build Community: 1BC.1 - 2 • Build Confidence: 1BCN. 3 - 4 • Stretch: 1.S.1 - 2 	<p>Pre-Session</p> <ul style="list-style-type: none"> • FLC members were asked to review guidelines for devising course level reflection strategies and develop a course level strategy of their own to share in the FLC meeting. [APPENDIX E] <p>In session</p> <ul style="list-style-type: none"> • Review principles of Backwards design and link this to work on reflection. • Coordinate with departmental colleagues to discuss and examine individual reflection strategies as a group. • Meet with the research team to review their individual reflection strategies, ask, and receive feedback
<p>Session 10: Monday 13 May 2019</p>	<ul style="list-style-type: none"> • Integration of FLC insights into 1st iteration of ICELER course. • Gain insight from questions and comments from invited guests external to FLC. 	<ul style="list-style-type: none"> • Examine: 1.E.3 - 4 • Build Community: 1BC.1 - 2 • Build Confidence: 1BCN. 3 - 4 	<p>Pre Session FLC members were instructed to prepare a short presentation that summarizes strategies they plan to adopt for integrating ethical reflection into a departmental course based on what they learned during the first year of the FLC. (APPENDIX A)</p>

Session	Session Objectives	Aligned Theory of Change Goals, Year 1 (Price et al., 2022)	Assignments and Activities
<p>Theme: <i>Dept. Presentations</i></p>		<ul style="list-style-type: none"> • Stretch: 1.S.1 - 2 	<p>In Session FLC members shared their individual and collective work and received formative feedback from peers, the research team, and the Advisory Board.</p> <p>Post Session FLC participants submitted a teaching portfolio focused on changes related to their prospective ICELER course and reflections on their scholarly identities and aspirations for FLC Year 2. (APPENDIX A)</p> <p>Each portfolio included:</p> <ul style="list-style-type: none"> • New/revised syllabus • Revised Copy of their Scholarly Identity Map • Reflective Essay

Table 2. ICELER FLC Curriculum Table Year 2 (2019-20).

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
<p>Session 1: Tuesday 23 September 2020</p> <p>Theme: <i>Ethics Education in the Context of Community Engaged Teaching</i></p>	<ul style="list-style-type: none"> Distinguish among concepts of community, community engagement, service-learning, civic learning and “civic-rich.” Examine assumptions about sources of authority in the classroom in the context of community-engaged teaching, including the implications "sources of authority" have for fostering ethical STEM subjectivity. Identify relevant concept of community appropriate for ICELER course (relational or place-based) Draft personal goals for the year that integrate "civic rich" component into their ICELER course/program 	<ul style="list-style-type: none"> Apply: 2.A.2 Broaden & Deepen: 2.BD. 2, 4 Iterate: 2.i.4 Hold Creative Tension: 2.HT.1, 3 	<p>Pre-Session</p> <ul style="list-style-type: none"> Warm up: Participants were asked to complete a Critical Incident Analysis (CIA) focused on a prior experience the faculty had with integrating community engagement or a community-based dimension to a course they had taught in the past. Considering what they had been learning about ICELER, they were to examine what stood out from them about that experience, what they would change, if anything, in the future and why. Results were posted in an online forum for comment and feedback from the group. Watch: <ul style="list-style-type: none"> Conceptualizing Community Engagement in Higher Education (7minutes) A Brief Overview of Service Learning (18 minutes) An Introduction to Civic Learning and Teaching (12 minutes) Read: Musil, C. T. (2015). <i>Civic-Rich Preparation for Work</i>. Examine: Participants were asked to complete a teaching self-assessment instrument focused on the first iteration of their ICELER course (APPENDIX F). The self-assessment focuses on dimensions of effective practice in service-learning pedagogy. Results were to be submitted online. <p>In Session</p> <p>Included overview of FLC expectations for the year; the remainder using small and large group facilitation techniques to debrief on the CIA and faculty reflections on their self-assessment results and to see goals for the faculty and offer feedback to the research team on the developmental needs and priorities of the faculty.</p> <p>Post Session</p> <p>The research team shared a resource on integrating civic learning in the STEM classroom to seed ideas and support their exploration and experimentation with articulating ethic learning with civic-rich content, community relationships and experiences, civic learning outcomes.</p>

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
			<ul style="list-style-type: none"> Price, M. F. (2017). Integrating Civic Learning into the STEM Classroom.
<p>Session 2: Tuesday 19 November 2019</p> <p>Theme: <i>Learning in a Community Setting</i></p>	<ul style="list-style-type: none"> Recognize the educational features within community settings. Practice identifying ethical situations in community settings. Practice analyzing conflicting factors of ethical situations in community settings. Pose questions about ethical conflicts in terms of specific, concrete values 	<ul style="list-style-type: none"> Apply: 2.A.2 Broaden & Deepen: 2. BD.2, 4, 5 Iterate: 2.i.4, 5 Hold Creative Tension: 2.HT.1 - 3 	<p>Pre-Session Participants were given prospective reflection prompts about their upcoming site visit to a local organization called Groundwork Indy. They were to post their response and respond to peers online:</p> <ul style="list-style-type: none"> <i>How, if at all, does your department engage students throughout their degree programs in community settings?</i> <i>If your department engages students in community settings, what are some common issues or problems that have been reported? If your department has not done this, what would you need to know before attempting to engage your students this way?</i> At our next meeting, the FLC will visit a local community organization, during our next FLC meeting. Among the learning objectives of Groundwork Indy's Youth Development programming is educating local youth in STEM principles and civic engagement in a community setting. <i>Identify three questions that you may like to ask during our visit.</i> <p>In Session Site Visit – Tour, Presentation and Session co-facilitated by organizational staff and students.</p> <p>Post-Session Online post with prompts regarding their experience at Groundwork Indy, including observations of the facilitation techniques used by the staff as well as points of possible intersection for follow-up by the faculty with the organization.</p>
<p>Session 3: Tuesday 3 December 2019</p> <p>Theme: <i>Designing and Assessing Critical Reflection Assignments</i></p>	<ul style="list-style-type: none"> Analyze student reflections to assess quality of reflective thinking alignment with ethics learning goals. Use student products and rubrics to diagnose areas for improvement in reflection assignment design. Practice giving feedback to students and peers regarding quality of reflective writing 	<ul style="list-style-type: none"> Apply: 2.A.2 Broaden & Deepen: 2. BD.1 - 3 Iterate: 2.i.1 Hold Creative Tension: 2.HT.1 -3 	<p>Pre-Session</p> <ul style="list-style-type: none"> Upload copy of your ethics-related reflection assignment If you already have made the assignment in class, select two anonymized representative student reflections (one strong, one weak) Upload a copy of assessment standards for this assignment. Indicate if assessment standards are not yet determined. Describe how reflection assignment ties into to learning objective(s)

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
			<p>In Session</p> <p>Two FLC members presented sample reflection assignments from the 1st iteration of their ICELER courses, including sample responses that they believed were strong, weak, and underdeveloped. Together the FLC reviewed the sample responses using the DEAL Model Critical Reflection Rubric to examine what to look for when looking for quality in reflective assignments, identify areas where they could offer targeted feedback using the rubric.</p>
<p>Session 4: Friday 31 January 2020</p> <p>Theme: <i>Meeting Community Partners</i></p>	<ul style="list-style-type: none"> • Become acquainted with potential community partners at their home sites. • Learn about specific educational opportunities as sources for potential partnership. • Appraise the organization for fit with course and/or departmental goals. 	<ul style="list-style-type: none"> • Apply: 2.A.2 • Iterate: 2.i.4 • Disseminate: 2.DiS.1 	<p>Pre-Session Work</p> <p>Each dept. team was assigned an organization to visit to assess fit as a potential partner – BME (Industry partner that manufactures prosthetics); ES (a grassroots community development organization with an environmental focus). Prior to the visit, they were asked to review the organization’s website to gather information regarding alignment. In addition, they were to prepare one to two questions for potential community partner relevant to your research or teaching interest; prepare one question for potential community partner relevant to ICELER program.</p> <p>In Session</p> <p>The site visits.</p> <p>Post-Session Work</p> <p>Participating faculty were asked to write a short reporting reflecting on their visit with the organization using the DEAL model for critical reflection (Ash & Clayton, 2009)</p> <ul style="list-style-type: none"> • DESCRIBE the experience: make a chronological outline and discrete elements of the experience; then pick one specific element and describe it objectively and in detail. • EXAMINE the experience: list five aspects of ethical inquiry; explain each; list which of the five emerged in the critical incident described; which additional aspects of ethical inquiry emerged in the critical incident; explain how they emerged. • ARTICULATE LEARNING: prepare to discuss reports and ask relevant questions at meeting with Patti Clayton on 28 February 2020.
<p>Bonus Session (Optional):</p>	<ul style="list-style-type: none"> • Learn about development of engineering ethics 	<ul style="list-style-type: none"> • Apply: 2.A.2 • Broaden & Deepen: 2. BD.1-2 	<p>Pre Session</p> <p>No additional prep</p>

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
Friday 7 February 2020 Theme: <i>Development of Engineering Ethics</i>			In Session <ul style="list-style-type: none"> • Guest Presentation and discussion: 'Where <i>Did you Get that Made Up?</i>': <i>Professions of an Engineering Ethics 'Trail Paver.'</i> " Dr. Joseph Herkert, D.Sc., Associate Professor Emeritus of Science, Technology and Society, North Carolina State University.
Session 5: Friday 28 February 2020 Theme: <i>Practicing Critical Reflection</i> <i>Meeting with Visiting Scholar in Ethics and Community Engaged Education: Patti Clayton, Ph.D.</i>	<ul style="list-style-type: none"> • Assess use of critical reflection in own ICELER course • Practice critical reflection • Reflect on ICELER experience and ask questions of visiting scholar 	<ul style="list-style-type: none"> • Apply: 2.A.2 • Broaden & Deepen: 2. BD.2 - 3 • Iterate: 2.i.1 • Hold Creative Tension: 2.HT.1,3. • Disseminate: 2. DiS.2 	Pre Session FLC members were asked to prepare for the upcoming session with Dr. Patti Clayton. They were asked to submit the following online: <ul style="list-style-type: none"> • Collect and review their reflection strategy for integrating reflection into course curriculum, reflective assignments, assessment standards, representative student work. • Submit collected materials with a written review that discussed the following: <ul style="list-style-type: none"> ○ Two or three strongest specific elements of your work ○ Two or three weakest specific elements of your work ○ 1-2 questions they had about how they could strengthen their use of critical reflection. • Critical Incident Analysis of a particular experience from your ICELER course (submit online). In Session [NOTE: Last FLC meeting in person before COVID-19 disruption]. Dr. Patti Clayton led a facilitated discussion with the FLC based on the DEAL Model of Critical Reflection. Faculty brought questions for discussion based on their prework.
Session 6: Friday 17 April 2020 Theme: <i>Experiential Ethical Reflection</i>	<ul style="list-style-type: none"> • Identify moral situations using their teaching practice as a source of direct experience. • Examine moral situations in the classroom to glean strategies to model with learners. • Translate these experiences of ethical import into instructional strategies specific to one's ICELER course 	<ul style="list-style-type: none"> • Apply: 2.A.2 • Broaden & Deepen: 2. BD.1 - 3 • Iterate: 2.i.1 • Hold Creative Tension: 2.HT.1 - 3. 	Pre-Session Faculty were asked to complete online discussion post in which they <ul style="list-style-type: none"> • Described a recent classroom experience where their attempt to teach disciplinary practice or to exemplify a good practitioner of your discipline gave rise to a moral situation (a conflict of values). • Examined the classroom experience considering their expressed values for teaching (those cited in their Scholarly Identity Map). <ul style="list-style-type: none"> ○ What was the character of the moral conflict in this situation? ○ Of the values at play in this situation, which ones aligned with or came into conflict with their core scholarly values, particularly those that guide their teaching?

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
			<ul style="list-style-type: none"> ○ On what moral grounds did they base their decision and how did they decide which values would guide their actions in this situation? ● Comment on colleague’s post (post in online forum) – additional structure prompts provided. <p>In Session: First Online Via Zoom (COVID-19) Members of the research team led a facilitated discussion using large and small group breakout rooms in Zoom. The discussion built on the prework and invited the FLC members to recognize and describe where moral values conflict with disciplinary practice in the classroom and 2) that noticing and describing these conflicts make explicit when and where ethical inquiry is needs to be integrated within disciplinary practice (i.e., its not an add on).</p>
<p>Individual Interviews: May–June 2020</p> <p>Interviews conducted in lieu of FLC meeting.</p>	<ul style="list-style-type: none"> ● FLC member: Reflect on implementation of ICELER course and experience with FLC. ● Grant team member: Collect data on implementation of ICELER course and participation in FLC. 	<ul style="list-style-type: none"> ● Iterate: 2.i.1 ● Hold Creative Tension: 2.HT.3 	<p>Pre Session None.</p> <p>In Session The research team conducted faculty interviews in lieu of FLC meeting. Interviews were conducted via Zoom (COVID-19). Interviews investigated the faculty standpoints regarding their: motivation to participate in the FLC, understanding of ethics and its relation to STEM, relation of community-engagement to STEM, place of critical reflection in STEM and in ethics, effects of ethics education on students’ behavior, perceived impact of FLC participation on relationships with colleagues.</p>
<p>End-of-Year Reporting</p> <p>Presentations completed remotely and asynchronously due to COVID-19.</p>	<ul style="list-style-type: none"> ● Collect evidence that students are developing ethical dispositions, knowledge, and skills. ● Assess results compared to expectations for student progress. ● Determine beneficial strategies used in teaching, facilitation, and assessment. ● Reflect critically on ICELER course experience and its alignment with professional identity 	<ul style="list-style-type: none"> ● Apply: 2.A.2 ● Broaden & Deepen: 2. BD.2 ● Iterate: 2.i.1 ● Hold Creative Tension: 2.HT.3 ● Disseminate: 2. DiS.1 - 2 	<p>Pre Session Department teams created and recorded presentations in PowerPoint regarding assessing ethics and reflective learning, including current evidence gathered and opportunities for collective change in light of COVID. (APPENDIX B)</p> <p>In Session Online (COVID-19) Department teams shared their individual and collective work and received formative feedback from peers, the research team, and the Advisory Board.</p> <p>Post Session FLC participants completed a revised teaching portfolio (APPENDIX B) that included:</p>

Session	Session Objectives	Aligned Theory of Change Goals, Year 2 (Price et al., 2022)	Activities and Assignments
			<ul style="list-style-type: none">• Updated ICELER syllabus, implemented ethics-related learning activities and assignments.• A course or session level reflection strategy planning table• Uploaded representative student responses, classroom observations, or assessment results.• Reflective Essay.

Table 3. ICELER FLC Curriculum Table Year 3 (2020-21).

Session	Session Learning Objectives	Aligned Theory of Change Goals, Year 3 (Price et al., 2022)	Activities & Assignments
<p>Session 1: Thursday 8 October 2020</p> <p>Theme: Roadblocks to Ethics</p>	<ul style="list-style-type: none"> Identify general roadblocks to the teaching and learning of ethics. Assemble ways to navigate roadblocks (and recognize openings) associated with ethics assessment and civic-rich/community-engaged instruction using our experiences of designing and teaching ICELER courses. Map our shared trajectories toward the realization of sustainability goals 	<ul style="list-style-type: none"> Apply & Iterate: 3.AI.2 Broaden & Deepen: 3. BD.2 Hold Creative Tension: 3.HT.1 - 3. Promote STEM Ethical Communities: 3. EC.2 	<p>Pre Session None</p> <p>In Session Online (COVID) The research team organized the session to excavate roadblocks the FLC was experiencing in assessing reflection and connecting ethics to moral values in the classroom. To address this issue, the FLC was presented with two statements and then broke into breakout rooms to discuss each statement. Then the group reconvened in a large Zoom room to compare responses. The statements were:</p> <p><i>Community engagement is too close to politics. Academics should avoid the political.</i></p> <p><i>Reflection on ethics surfaces opinions and values. Instructors cannot assess opinions and as a result, cannot assess reflective work.</i></p> <ul style="list-style-type: none"> In what ways is each statement resonant/disconsonant with your perspective on teaching ethics? What assumption assumptions, attitudes, or experiences reinforce this roadblock and keep us from our varying perspectives on ethics? What practices can help us move beyond this roadblock. <p>The group repeated a similar process with roadblocks to anti-racism in STEM education and closed with a brainstorm activity to capture faculty ideas about ICELER sustainability and expansion</p>
<p>Session 2: Thursday 10 December 2020</p> <p>Theme: Spotlight on Teaching</p>	<ul style="list-style-type: none"> Describe at least one new strategy for aligning ethics learning goals with civic rich content. Describe a strategy for coping with uncertainty in the classroom. Examine a strategy for making sense of uncertainty in your teaching and its relation to your understanding of being an ethical teacher. 	<ul style="list-style-type: none"> Apply & Iterate: 3.AI.2 Broaden & Deepen: 3. BD.3 - 4 Hold Creative Tension: 3.HT.1-3. Promote STEM Ethical Communities: 3. EC.2 	<p>Pre Session None</p> <p>In Session Online (COVID) The session opened with a small group reflection activity using the following prompts:</p> <ul style="list-style-type: none"> What has been your biggest positive/unexpected success from this semester related to teaching ethics and/or teaching in civic or community-engaged contexts? What has been your biggest challenge this semester in carrying out ICELER activities/content?

Session	Session Learning Objectives	Aligned Theory of Change Goals, Year 3 (Price et al., 2022)	Activities & Assignments
	<ul style="list-style-type: none"> Identify an alternative approach to strengthening ethical reflection in the STEM classroom 		<p>The group returned to the large group to share the results of small group conversation.</p> <p>In addition, there were two presentations to finish the session. An FLC member presented a civic rich assignment they use to link earth science to public policy in a first-year gen ed course. In addition, a guest presenter introduced ePortfolios as part of an assessment strategy for ethics education.</p>
<p>Session 3: Friday 26 February 2021</p> <p>Theme: Moving from Practice to Inquiry: Teaching as an ethical and civic practice</p>	<ul style="list-style-type: none"> Describe at least one new strategy for aligning ethics learning goals with civic rich content. Describe a strategy for coping with uncertainty and trustworthiness in the classroom. Examine a strategy for making sense of uncertainty in your teaching and its relation to your understanding of being an ethical teacher. Identify an alternative approach to strengthening ethical reflection in the STEM Classroom Identify an experience where community members exemplified trustworthiness in your teaching and how you can improve this in the future. Identify strategies to sustain departmental conversations and engagement in ICELER. 	<ul style="list-style-type: none"> Apply & Iterate: 3.AI.1, 3. Broaden & Deepen: 3. BD.1 - 4 Hold Creative Tension: 3.HT.1-3. Promote STEM Ethical Communities:3. EC.1- 3 	<p>Pre-Session</p> <ul style="list-style-type: none"> Read T. Ryan Byerly (2021), “How to Know Who’s Trustworthy.” (https://psyche.co/guides/how-to-spot-whos-trustworthy-and-whos-not-on-what-matters) Based on the reading, complete online self-assessment of teaching virtues and answers these questions: <ul style="list-style-type: none"> Which of the virtues associated with trustworthiness do you feel that you exemplify the best? List them here. Pick one of the virtues you listed above. Describe a specific experience in which you exemplified this virtue. What does it look like when you practice this virtue in your teaching? What does this practice look like when you engage students and communities/publics? Considering what you have learned about trustworthiness, are there elements of your practice that you might approach differently in the future? <p>In Session</p> <ul style="list-style-type: none"> FLC participant (Earth Sciences) introduces the Byerly article and how they used it in their classroom to stimulate ethical reflection and inquiry related to field-based practice. Working in small groups, FLC discussed the article in light of the self-assessment and considered opportunities to apply a similar approach in their own courses. Two other FLC participants (Biomedical Engineering) reported on their group’s progress to support departmental transformation by means of how a new member of the department was socialized into taking over an ICELER course.
<p>Session 4: Friday 26 March 2021</p>	<ul style="list-style-type: none"> Describe a strategy for coping with uncertainty and tensions in the classroom. 	<ul style="list-style-type: none"> Apply & Iterate: 3.AI.1, 3. Broaden & Deepen: 3. BD.3 	<p>Pre-Session</p>

Session	Session Learning Objectives	Aligned Theory of Change Goals, Year 3 (Price et al., 2022)	Activities & Assignments
<p>Theme: Science and Engineering as Practitioner Work: Uncertainty & Engagement</p>	<ul style="list-style-type: none"> Examine a strategy for making sense of uncertainty, tensions, and positionality in your teaching and its relation to your understanding of being an ethical educator. Identify an alternative approach to strengthening ethical reflection and community-engaged learning in your own teaching in the STEM classroom. 	<ul style="list-style-type: none"> Hold Creative Tension: 3.HT1 – 3. 	<p>The faculty were asked to explore the topic of uncertainty as an endemic feature of STEM practice in academic, professional, and civic settings by reading: Eaton, Wright, Whyte, Gasteyer, & Gehrke (2014), “Engagement and Uncertainty: Emerging Technologies Challenge the Work of Engagement.”</p> <p>In Session [ONLINE - COVID] The FLC meeting considered how uncertainty is a source of creative and ethical tension in our teaching and engagement practice and when it becomes a roadblock. This included:</p> <ul style="list-style-type: none"> Members of the research team presenting findings from a thematic analysis of FLC participant interviews about ICELER courses including entanglement of ethics and STEM; role of self; relationship to others. <ul style="list-style-type: none"> Discussion of the Eaton et al. article including: <ul style="list-style-type: none"> Relevance to theme of relationship to others Values & Assumptions in our Teaching Uncertainty, Assumptions and Tensions in Engagement Complete and discuss the results of an in session directed writing activity devoted to values, assumptions, and uncertainty in teaching and engagement. The faculty received a worksheet describing causal, paradigmatic, and prescriptive assumptions along with a list of values that each department had prioritized earlier in the grant period. Using the questions below, they were asked to respond in a Shared Google document and then debrief their responses in small breakout groups. <ul style="list-style-type: none"> <i>Name one value from the table that is of central importance to you in your engaged/ethics teaching practice.</i> <i>Identify one assumption about how you relate to others through your practice (students, partners) that expresses/illustrates this value.</i> <i>Review your assumption, how would you categorize it? Is it a paradigmatic, causal, prescriptive assumption?</i> <i>Has there been a recent instance when this assumption led you into a situation where you were uncertain or felt conflicted about the next course of action or the accuracy of your assumption in this situation? Briefly describe the source of the tension and whether you</i>

Session	Session Learning Objectives	Aligned Theory of Change Goals, Year 3 (Price et al., 2022)	Activities & Assignments
			<p>were able to engage the tension productively or got stuck in a roadblock.</p> <ul style="list-style-type: none"> • What's one assumption you want to interrupt in your ethics/engaged teaching practice? Considering what you have learned today, how might you reframe this assumption to shift it from being a roadblock to a productive tension in your teaching practice?
<p>Session 5: Friday 28 May 2021</p> <p>Theme: Year-End Reporting</p>	<ul style="list-style-type: none"> • Collect evidence that students are developing ethical dispositions, knowledge, and skills. • Assess results compared to expectations for student progress. • Determine beneficial strategies used in teaching, facilitation, and assessment. • Reflect critically on ICELER course experience and its alignment with professional identity 	<ul style="list-style-type: none"> • Apply & Iterate • Hold Creative Tension: 3.HT.3 • Disseminate: 3.DIS.2 • Promote STEM Ethical Communities: 3. EC.1 – 3. 	<p>Pre Session Department teams created and recorded presentations in PowerPoint regarding assessing ethics and reflective learning, including current evidence gathered and opportunities for collective change in light of COVID. (APPENDIX C)</p> <p>In Session (ONLINE – COVID 19) FLC members heard from institutional representatives about upcoming accreditation processes and how their ICELER work can contribute to those efforts.</p> <p>Departmental Team Presentation (made to FLC, ICELER Planning Team, and ICELER Advisory Board) - each team prepared a short 15–20-minute PowerPoint presentation detailing contributions from all participating department members participating during 2020-21.</p> <p>Post Session Revised Teaching Portfolio and Essay (APPENDIX C) Active FLC members submitted a revised portfolio including:</p> <ul style="list-style-type: none"> • Updated and annotated ICELER syllabus • Implemented ethics-related learning activities and assignments. • Updated reflection strategy planning table • Uploaded representative student responses, classroom observations, or assessment results. • Reflective Essay

Table 4. ICELER FLC Curriculum Table - Year 4 (2021-22).

Session	Session Objectives	Aligned Theory of Change Goals, Year 4 (Price et al., 2022)	Activities and Assignments
<p>Session 1: Friday 8 October 2021</p> <p>Theme: ICELER Sustainability, Assessment, and Dissemination</p>	<ul style="list-style-type: none"> Identify ideas and strategies for completing the "next steps" identified in previous annual report. Set individual goals for the current year to support sustainability and dissemination of ICELER post grant. Set departmental goals for the year to support sustainability and dissemination of ICELER post grant. Consider opportunities for individual and joint dissemination. 	<ul style="list-style-type: none"> Sustain Momentum: 4. SM.1, Assess and Refine: 4. AS.4 Promote Ethical STEM Communities: 4. EC.4 - 5 	<p>Pre Session FLC members asked to review annual report and course materials from the previous year and come read to discuss and strategize.</p> <p>In Session Through facilitated discussion FLC members discussed achievements during the grant period thus far that they were proud of [personal, dept., school, or community] and ways they found effective to share their accomplishments. In addition, the FLC discussed:</p> <ul style="list-style-type: none"> ideas and strategies for completing the "next steps" they identified in their previous annual report. their individual goals for the year. their departmental goals for the year including use of remaining grants funds. <p>Finally, the research team introduced a departmental level collective self-assessment that would guide each department in action planning beyond the grant period.</p>
<p>Research Team Meeting with Dept. Chairs</p> <p>Nov. 2021 - Jan. 2022</p>	<ul style="list-style-type: none"> Discuss opportunities, questions, and barriers to sustainability of ICELER based on the rubric. Provide a protected space for department chairs to express their candid views 	<ul style="list-style-type: none"> Sustain Momentum: 4. SM.2, Promote Ethical STEM Communities: 4. EC.1 - 2 	<p>Department chairs debrief with research team regarding their individual e individual ratings of ICELER adapted Engaged Department Rubric (APPENDIX G) and discuss with the research team the chairs' ideas for working with feedback collected through the process to develop the action plans. In addition, the research team gathered feedback from the chairs that was used to organize the Jan. FLC meeting.</p>
<p>Session 2: Friday 28 January 2022</p> <p>Theme: Reviewing Completed ICELER Engaged Department Rubrics</p>	<ul style="list-style-type: none"> Compare and contrast actual and desired responses to rubric to chart course toward institutionalization of ICELER. Identify next steps to develop ICELER sustainability action plan. 	<ul style="list-style-type: none"> Sustain Momentum: 4. SM.1 - 2 Assess and Refine: 4. AS.3 - 5 Promote Ethical STEM Communities: 4.EC. 1, 5 	<p>Pre-Session FLC members were asked to complete individual ratings of ICELER adapted Engaged Department Rubric (APPENDIX G). The research team compiled responses and shared the collective responses with the participants prior to the meetings.</p> <p>In Session Working in departmental teams, FLC members compared their current and desired responses for each dimension of the rubric looking for points of convergence and divergence. Their discussion included the following questions:</p> <ul style="list-style-type: none"> Are we on the same page? Where do our understandings converge/diverge re: where we are and where we want to be?

Session	Session Objectives	Aligned Theory of Change Goals, Year 4 (Price et al., 2022)	Activities and Assignments
			<ul style="list-style-type: none"> How does the climate for civic/community engagement, which includes ethical reflection and applied ethics, intersect with advancing other priorities in our department? Who else do we need to engage to answer these questions to advance sustainability of ICELER in our department? <p>The session ended with department chairs sharing their preliminary observations and reflections.</p>
<p>Session 3: Friday 25 March 2022</p> <p>Theme: Preparation for Year-End Reporting</p>	<p>FLC members working in departmental teams:</p> <ul style="list-style-type: none"> Identify priorities for inclusion in the action plan based on a review of team’s responses to a rubric. Identify data sources or key informants to aid in the refinement of goals. AND/OR Identify data sources or key informants to support the development of action plan objectives. 	<ul style="list-style-type: none"> Sustain Momentum: 4.SM. 2 Assess and Refine: 4. AS.3 - 5 Promote Ethical STEM Communities:4. EC.1, 4. EC.5 	<p>Pre Session</p> <ul style="list-style-type: none"> FLC members and chairs self-organized to translate results from January session into an outline of their action plan. <p>In Session [NOTE: First session back in person post COVID] Working in departmental teams, FLC participants have focused time to continue planning their ICELER Sustainability Action Plans, this includes:</p> <ul style="list-style-type: none"> Summarizes the approach to an action plan based on a department’s responses to the ICELER Engaged Department Rubric (APPENDIX G). Sets specific goals aligned with each dimension of the rubric. Ensures each goal includes measurable objectives and identifies evidence of achievement of goal. Describes plans for engaging students, community partners, industry partners, and colleagues and administrators when appropriate. Identifies potential people (from among FLC organizers, colleagues, or community members/organizations) to call on for assistance or expertise in achieving their goals. Creates a budget for funds to be used in support of community engagement.
<p>Session 4: Tuesday 17 May 2022</p> <p>Theme: Year-End Reporting</p>	<ul style="list-style-type: none"> Department teams produce and share their draft ICELER sustainability action plans to members of the campus community and other stakeholders. Department teams have opportunities to find new allies and critical friends. Receive generative feedback from colleagues and stakeholders to 	<ul style="list-style-type: none"> Assess & Refine: 4. AS.5 Sustain Momentum: 4. SM.2 Promote Ethical STEM Communities: 4. EC.1 – 2, 4. EC.5 	<p>Pre Session</p> <ul style="list-style-type: none"> Departmental teams were instructed to prepare a summary presentation of their findings, priorities, and preliminary action steps based on FLC work completed spring 2022 (See instructions in APPENDIX D.) <p>In Session</p>

Session	Session Objectives	Aligned Theory of Change Goals, Year 4 (Price et al., 2022)	Activities and Assignments
	<p>refine their sustainability action plans.</p> <ul style="list-style-type: none"> The research team captures key themes from the session as an artifact and data point. 		<ul style="list-style-type: none"> Departmental teams present their sustainability action plans to peers, department chairs, members of the grant advisory board and other campus stakeholders. Feedback on the plans is gathered using a World Café process. Insights generated through this participatory feedback process through hand notes as well as a graphic facilitator. <p>Post Session FLC participants complete reflection essay and submit revised teaching portfolio (APPENDIX D).</p> <p>Each portfolio should include:</p> <ul style="list-style-type: none"> Updated syllabus Implemented ethics-related learning activities and assignments. Updated reflection strategy planning table Uploaded representative student responses, classroom observations, or assessment results. Reflective Essay using the DEAL model of critical reflection.

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Appendices

Appendix A:

ICELER FLC Year 1 (2018-2019) End of Year Department Presentation & Individual Portfolio Instructions

To close activities for Year 1 of the Faculty Learning Community for NSF Award #[1737157](#), we ask FLC members to reflect on their learning and document planned instructional practices through two items: (1) a presentation to the rest of the FLC and invited guests and (2) submission of a teaching portfolio. Portfolios and presentations will be submitted to Canvas.

Each FLC member will continue to build on their baseline portfolio over the next three years of the grant program. Each year of the program, members will be asked to update and refine their portfolio as well as complete a capstone reflection essay on the work to date.

1. End of Year Presentation [due May 13th, 2019]:

Each FLC member will deliver a **10 minute** presentation (including Q&A) that summarizes strategies for integrating ethical reflection into a departmental course. Presentations may take the form of group rather than individual presentations. Presentations should cover the following items:

- Name and level of the course
- Ethics-related learning goals and objectives
- Relevant learning experiences selected
- Reflection strategy(ies)
- Means by which learning goals and objectives will be assessed
- If applicable, outline of how you approached integrating community and community engagement with ethical reflection; alternatively, how you plan to do so in the future
- In addition to these items, we encourage you to creatively incorporate other relevant aspects.

2. ICELER Teaching Portfolio [due on or before May 31st, 2019]:

Each portfolio should include a:

1. **New/revised course syllabus**- if revising a course, please include a copy of your starting syllabus as well. Changes to the revised syllabus specific to ethics and community-engaged learning should be highlighted/annotated. This should include, at a minimum, the following items.
 - o **Ethics-related learning goals and objectives**
 - o **Ethics-related learning assignment(s)** – this may be a new or revised assignment; if revised, please include both the initial and the revised assignment. Changes to the revised assignment specific to ethics and community-engaged learning should be highlighted/annotated.
 - o **Completed Reflection Strategy Planning Table** – this table will describe your draft plan for course implementation, reflection facilitation, and assessment as it relates to integration of ethical reflection in your course.
- If you need to locate content and materials related to reflection see the following:

- DEAL Model of Critical Reflection [[Session 6 PPT and materials](#)] [refer to our [course WIKI for key resources on creating and assessing reflection assignments](#)]
 - [WHERE TO Handout](#) [Backwards Design Learning Plan criteria and links to the 4 Cs of Reflection]
 - Reflection Strategy Development and Template
 - [PPT about reflection strategy development](#) [derived from Sessions 6-8]
 - developing a [reflection strategy handout](#) and [template](#)
2. **Revised Scholarly Identity Map (SIM)** – refer back to the identity map that you created in Fall 2018. Revise your map to reflect your current thinking [this may be modifications in values, the public purposes of your scholarly work and how you enact your values in your scholarly work in teaching, research and service.
- If you have trouble locating your submitted maps or the instructions/templates for producing them, refer back to **Session 2** [[Scholarly Identity Mapping Pt 1](#)] and **Session 3** [[Scholarly Identity Mapping Pt 2](#)] for instructions and templates])
 - When you submit your portfolio, include copies of both your Fall semester 2018 identity map and your revised Spring 2019 map.
3. **Reflective Essay** – The reflective essay has three sections and invites you to examine dimensions of your learning, professional growth and aspirations across this first year of the ICELER Faculty Learning Community.
- ***Your evolving scholarly identity, with particular reference to your sense of self as an educator.***
 - Comparing your first Scholarly Identity Map (SIM) in Fall 2018 to your revised map ,
 - Describe any adjustments or clarifications that you made to your map, if any [e.g. values, purposes/goals, scholarly identity, how you enact your values as an educator and scholar, etc.]. In your discussion, make sure to note facets of your map that remain constant or have been further clarified over this year.
 - What have you learned about yourself? How, if at all, has your perspective on teaching ethics changed since joining this FLC? What points of tension or convergence do you note between your scholarly values and how you approach teaching ethics and how do you anticipate these playing out in the classroom and community?
 - ***Analysis of course redesign.*** Using the draft course materials that you've included in your portfolio, **describe and examine** the new or revised elements you have added to your course that focus on ethics in an experiential way.
 - **In your response, give particular attention to:**
 - the nature of the experiences that you are incorporating and how you have created the scaffolding to connect the experience to course goals/objectives.
 - ideas for how you plan to assess ethics learning in this course
 - how you will use best practices of critical reflection to support students in conducting and making sense of ethical inquiry [give specific reference to a model you plan to use - give reference to your reflection strategy table].
 - those features that excite/challenge you about the revisions that you have made to your course; including, how you anticipate navigating challenges that arise.

- what will constitute markers of “success” for you as you implement this course
- ***Aspirations for FLC Year 2***
 - Looking ahead, what goals would you like to set for yourself in Year 2 of the FLC?
 - In Year 2, one of our foci will be on community engagement in teaching and learning. Share your thoughts on what “community” and “community engagement” mean to you in your role as an educator?
 - What current ideas do you have about the communities that you might engage in ethical inquiry?
 - What do you anticipate to be the challenges **and** opportunities for integrating community engagement with ethical inquiry and reflection in your course(s)?

Appendix B:

ICELER FLC Year 2 (2019-20) End of Year Department Presentation & Individual Portfolio Instructions

To close activities for Year 2 of the Faculty Learning Community for NSF Award #[1737157](#), we ask FLC members to **reflect on their learning and document implemented instructional practices** through two items: (1) a **departmental presentation** to be shared with the ICELER grant Advisory Board and NSF, and (2) a **revised ICELER teaching portfolio**. Both individual portfolios and department team presentations will be submitted to the ICELER Canvas site.

- **Departmental Team Presentation**

- **Due Date: on or before Monday, August 17th, 2020.** If this deadline proves a barrier to completion, please let Grant, Justin, or Mary know, and we can work with you to identify a later date in August. This report will be shared with NSF and the Advisory Board.
- **Format:** Narrated PPT presentation. The PPT should include the voices and contributions of all department members participating in the grant or who implemented courses in 19-20. Team presentations should be approximately 15-20 minutes in length.
- **Activity:** Each department is responsible for organizing a virtual meeting to discuss and review student products, other sources of formal and informal student feedback, ICELER collected student data, and grant-related 2019-20 teaching experiences.
- **Questions to answer in the PPT presentation:**
 - *What evidence is there that students are gaining the necessary ethical dispositions, knowledge, and skills to navigate social complexities they will confront as STEM professionals? Provide concrete examples.*
 - *To what degree do your observations align team expectations for student performance, motivation, and engagement?*
 - *What evidence is there for the influence of individual course revisions on students throughout their career in your departmental program of study?*
 - *What has been most promising among the teaching, facilitation, and assessment strategies that individual team members have tried? Which strategies, if any, do you want to work together to strengthen?*
 - *What collective opportunities do you see to further strengthen ethical inquiry and action? Consider this question in light of current circumstances, as well as post-COVID?*
 - *As a team, which of these opportunities do you view as priorities? Which do you plan to pursue in 20-21?*

- **Revised Teaching Portfolio and Essay:**

- **Due date: on or before Tuesday, September 1, 2020:** If this deadline proves a barrier to completion, please let Grant, Justin or Mary know and we can work with you to identify an alternate date. Portfolios should be uploaded to the ICELER Canvas site via the 19-20 End of Year Report Module or upload through the Assignments Tool.

- **Content and Format:** Each portfolio should include:
 - **An updated course syllabus.** Changes to the revised syllabus specific to ethics and community-engaged learning should be highlighted/annotated including but not limited to **learning goals and objectives, assignments, assessments.**
 - **Implemented ethics-related learning activity(ies) and assignment(s).** If the assignment includes changes from what was submitted last year, please highlight/annotate these alterations.
 - **An updated reflection strategy planning table.** Please review and update what you submitted last year to reflect what you actually implemented during 2019-20. The reflection strategy table describes your integrated design, facilitation plan, specific reflection activities, and assessment plan for ethical inquiry and reflection in your course. [**Looking for resources we used for this for last year?** Refer to the table below. If you need assistance, let Mary know.]
 - **Upload sample representative student responses (if available), classroom observations, or assessment results** from the most recent implementation of your ICELER course(s). Please strip any identifying student information.
 - **The Reflective Essay** – In the first year of the ICELER grant, we read an article by Parker Palmer called “*We Teach Who We Are*,” that focused on the role of values and identity in how we teach. For this year’s essay, recall a situation over the last year, where you were able to teach who you are as it relates what and how you integrate ethics, critical reflection, and community engagement (or civic-rich content) in your teaching.
 - **Describe the situation objectively.** Note the positive/negative/interesting points about the situation, any alternatives/possibilities/choices which were also available, and alternate viewpoints/perspectives/opinions possibly held by others involved in the situation.
 - **Examine your experience.** Read back through your account of the situation.
 - What do you discern from the situation about your beliefs (and, if relevant, those of others involved) about teaching and professional practice generally, and specifically ethics education in STEM?
 - Which elements of the situation you discuss align well with the values and principles you hold as an educator and academic professional (i.e. who are you as a moral educator/professional)?
 - What decisions, prior experiences, or systems would you point to as sources for the alignment you observe in this situation between your values and experience?
 - By contrast, which elements express points of tension or moral dilemmas for you as an educator and professional?
 - **Articulate what you have learned.** Finally, what insights can you draw from this situation about yourself as an educator and STEM professional? Consider how this self-knowledge is influencing your vision of the educator/scholar you want to become?

Appendix C: ICELER FLC Year 3 (2020-21) End of Year Department Presentation & Individual Portfolio Instructions

To close activities for Year 2 of the Faculty Learning Community for NSF Award #[1737157](#), we ask FLC members to **reflect on their learning and document implemented instructional practices** through two items: **(1) a departmental presentation** to be shared with the ICELER grant Advisory Board and NSF, and **(2) a revised ICELER teaching portfolio and end of year reflection**. Both individual portfolios, reflections and department team presentations will be submitted to the ICELER Canvas site.

Departmental Team Presentation

- **Due Date: Friday, May 28th, 2021.** To be presented to the ICELER Advisory Board and core campus stakeholders. The content of this presentation will also be shared with NSF.
- **Format:** PPT presentation. The PPT should include contributions of all participating department members participating in the grant, including all who implemented courses in 20-21. Team presentations should be approximately 15-20 minutes in length. Following the presentations on Friday, 5/28.
- **Final Presentations should be submitted to:** Canvas
- **Prior to working on the presentation, teams are encouraged to review the following resource:**
- Your department's IUPUI Profiles Map₂, which your department completed for the Campus in 2018-19. Copies are available in Canvas.
- *Background*
 - [IUPUI Profiles of Learning for Undergraduate Success \(aka The Profiles\)](#) [you can download the report from this page]
 - [Resources for Mapping the Profiles](#)
- **Items to consider prior to preparing the presentation:** As we look toward the final year of the grant and close out an unprecedented year of disruption and change, we want to keep our eyes squarely on the question of post-grant sustainability, and specifically sustaining and furthering the integration of ICELER as an aspect of departmental culture. With this in mind, we invite each department to respond to each of the following questions.
 - **(2-5 minutes) Emergent learning about educating future ethical scientists and engineers.** In prior reports, each department has emphasized the importance of judgment and communication [scientific or engineering judgement]. In light of what we have learned together, how has your collective work in this grant changed how your department understands ethical learning as an integrative, pervasive, and “entangled” dimension of developing professional judgment?
 1. *What does it mean to **become an ethical earth scientist or ethical biomedical engineer**? How has your collective understanding of this changed throughout the project?*

2. What are the **core values or dispositions** that guide your departmental frameworks for becoming an ethical earth scientists or ethical biomedical engineer?
 3. How have you as a faculty sought to collectively **make these values transparent** to students in assignments, in and out of class?
- **(10-15 minutes) Alignment with institutional goals for student learning and success.** As you address the following questions, we would like you to consider how your department's ethics learning objectives currently align with the IUPUI Profiles. Thus,
- What is the **alignment** between the profiles and specific profile dimensions with your department/programmatic goals and individual course goals for ethics learning? In responding to these questions, you may want to review and revise **your department's IUPUI Profiles Map**, which your department completed for the Campus in 2018-19.
 - What **assessment evidence** (emergent and/or anecdotal) do you observe from student behavior or student products that indicates that learners are growing in their capacity to achieve the above considerations? The following list of bullets offer ways of framing assessment evidence at the intersection between what you've done in the FLC and in relation to the PROFILES (please provide concrete examples):
 - *Students are able to name these core values/dispositions as part of what it means to be an ethical earth scientist or biomedical engineer*
 - *Students are able to identify these values in tension when faced with a real or simulated situation*
 - *Students can communicate the relationship between ethical judgement and scientific and engineering judgment to peers and diverse others,*
 - *Students have taken a course of action that aligns with these values but is attentive to the context of the situation*
 - *Students see themselves as belonging to an emergent professional community with an ethos and set of public commitments.*
 - *Students are gaining the necessary ethical dispositions, knowledge, and skills to navigate both the technical as well as social complexities they will confront as STEM professionals*
 - To what extent are students **aware** of the ethical learning they have gained as part of their program of study? How have you made these transparent? How could you collectively make them more transparent?
 - External partners are joint stakeholders in your work with students. In what ways have you **shared** these objectives and desired outcomes with external stakeholders? To what degree are these objectives and desired outcomes transparent to external partners [community, professional, industry, etc.]. What plans do you have to advance this dimension of your department's ICELER work in the closing year of the project?

- **OTHER OPTIONAL QUESTIONS TO EMBED IN YOUR PRESENTATION**

- **Readiness and onboarding:** Faculty involvement in teaching will evolve over the coming years, what policies, strategies is your department considering to onboard new, reassigned and/or part-time faculty into this work? What actions do you plan to take in 2021-22 to put these structures into place? What questions do you have or what supports would be helpful to improve instructor readiness and onboarding?
- **Creative Disruption:** Disruption has been a constant throughout the last academic year; however, disruption often opens unexpected doors that foster creativity. When you consider the impact COVID-19 on your departmental work with ICELER, what unexpected opportunities have emerged that have helped to further your collective work or spawned new directions.
- **Tensions:** Illustrate one or two **ongoing ethical tensions** that your department continues to confront as you seek to help students become ethical scientists and engineers, particularly in terms of fulfilling their public roles that you have actively engaged them in during your program.

Revised Individual Teaching Portfolio and Essay:

Due date: on or before Monday, June 15th, 2021: If this deadline proves a barrier to completion, please let Grant, Justin or Mary know and we can work with you to identify a later date. Portfolios should be uploaded to the ICELER Canvas site via the 20-21 End of Year Report Module or through the Assignments Tool.

- **Content and Format:** Each portfolio should include:
- **An updated course syllabus if you have made changes over the course of the 20-21 AY.** Changes to the revised syllabus specific to ethics and community-engaged learning should be highlighted/annotated including but not limited to **learning goals and objectives, assignments, assessments.**
- **Implemented ethics-related learning activity(ies) and assignment(s).** If the assignment includes changes from what was submitted last year, please highlight/annotate these alterations.
- **An updated reflection strategy planning table.** Please review and update what you submitted last year to reflect what you actually implemented during 2020-21. The reflection strategy table describes your integrated design, facilitation plan, specific reflection activities, and assessment plan for ethical inquiry and reflection in your course. [**Looking for resources we used for this for last year?** Refer to the table below. If you need assistance, let Mary know.]
- **Upload sample representative student responses (if available), classroom observations, or assessment results** from the most recent implementation of your ICELER course(s). Please strip any identifying student information. (Note: We hope preparing for the departmental presentations will expedite this aspect.)
- **The Reflective Essay:**

- **Reflections on on Teaching:** What is the most significant realization you have had in the last year about how you integrate ethics, critical reflection and community engagement/civic rich content into your teaching practice this past year? What incident precipitated the insight? What do you plan to do differently in the next twelve months?
- **Planning for Dissemination:** What are your goals for disseminating your work on this grant? For example, submit your syllabus, assignment, assessment to the IUPUI Digital Teaching Repository? Submit to a STEM repository? Bring together a group of peers to evaluate student products? Co-present at a conference with my students and partners? Develop a reflective essay with other FLC members? Write a peer reviewed journal article? Writing an OpEd? Develop a SoTL project related to my course? Others?
- **Engaging Community:** There is a significant amount of grant funds remaining to support community engagement. **How will you use these funds?** To respond to this question, consider ideas you have for involving relevant publics or communities in your teaching efforts, or how you might collaborate with communities in other creative modalities. Let the grant team know how we can support you in this effort.
- **Going Meta on Ethics Teaching.** In its [Statement on Scientific Freedom and Responsibility, the AAAS](#) affirms the following:

“Scientific freedom and scientific responsibility are essential to the advancement of human knowledge for the benefit of all. Scientific freedom is the freedom to engage in scientific inquiry, pursue and apply knowledge, and communicate openly. This freedom is inextricably linked to and must be exercised in accordance with scientific responsibility. Scientific responsibility is the duty to conduct and apply science with integrity, in the interest of humanity, in a spirit of stewardship for the environment, and with respect for human rights.”

Consider this statement in light of your own teaching, engagement and professional practice.

- *In what ways does this statement align with your own personal and professional view? In what ways does it diverge?*
- *As you look at the duties outlined for scientific responsibility in the AAAS statement, which aspects of the duties do you see most strongly present in your ethics teaching? Which are the least present?*
- *If students in your course were presented with the AAAS statement and asked which duties they observed as most strongly/least present in your ethics teaching, how do you think they would respond? How do you think other external partners with whom your students have worked (e.g. government, industry, non-profit, residents) would respond?*

Appendix D:

ICELER FLC Year 4 (2021-22) End of Year Department Presentation & Individual Portfolio Assignments

As we look towards the close of the grant (NSF Award #[1737157](#)) and sustaining, refining and deepening work initiated during the grant beyond the grant term is a key goal. To address disruptions due to COVID, the team is applying for a no-cost extension enabling teams to have an additional year to spend available funds to advance grant goals, in particular community engagement. To this end, this year's end-of-year reporting will emphasize the work of taking stock, benchmarking, and charting future action.

Framing:

Ethical Becoming in Action: The ICELER grant project views STEM ethics education not just as exposure to concepts and codes, but also as an invitation to design innovative and developmentally appropriate opportunities in which students deepen their ethical consciousness through civic experiences such as community relationships and actions, and critical reflection.

ICELER bridges **micro-** [*individual dilemmas* – e.g., health and safety, bribes and gifts, fair credit, etc.] and **macro-ethics** [*collective dilemmas, connection to social and global issues and how these intersect with individuals*; e.g., product liability, sustainable product development, waste management, diversity of STEM workforce, human cloning, etc.], situating educationally meaningful community engagement as a means for the critical examination of the ethical self and ethical communities of practice that shape STEM students in their becoming future ethical professionals and global citizens.

Departmental engagement matters: Departmental conditions for community engagement are an important part of the cultural climate to sustain and advance ICELER Work into the future. The ICELER-adapted Engaged Department Rubric will serve as one data source for each Department's Team Report complemented by each team member's Individual Portfolios.

As in past years, **both individual portfolios and department team materials will be submitted to the ICELER Canvas site.**

Department Action Plan and Report: DUE DATE: Wednesday, June 1, 2022.

The final written report expands on the summary presentation and incorporates feedback offered during the May 17th meeting. The report should follow the format below. It will be submitted to NSF as part of the grant team's annual reporting.

The Written Action Plan:

- **Summarizes the path used and evidence reviewed by each department to arrive at their action plan.**
 - It includes a brief overview of ICELER in the department to date and more detail discussion of the work conducted in the spring of 2022 using the Rubric. The discussion should not just summarize the individual FLC member and department chair reflections but should capture how other stakeholders were engaged in the spring, the way(s) they were engaged (interviews, faculty meetings, focus groups, interviews, etc.) and any benchmarking evidence indicating goals and objectives in the plan.

ILLUSTRATIVE EXAMPLE: *In addition to the department chair and FLC members completing the Engaged Department Rubric in Spring 2022, the department devoted a portion of a faculty meeting to poll participants on their individualized working definitions and informal conversations were conducted with department staff and professional advisors; the department chair engaged department staff member to complete a preliminary scan of the department’s website using key terms. Not having a shared understanding or vocabulary makes it difficult to gain buy-in or improve the quality of ethics teaching and learning through ICELER. Based on this preliminary evidence, the department identifies the lack of shared operational definition of community and community engaged teaching (links to **Rubric Dimension I – Mission and Culture**) as a barrier to the sustainability and further enhancement of curriculum transformation initiated through ICELER. Addressing this barrier will become a goal in their plan.*

- Remember, this part of the report summarizes the work to generate the plan not the actual implementation of the plan, which will occur in 2022-23; and may extend beyond the last of year of the grant depending on the scope of the objectives.
- **Sets specific goals:**
 - Each plan includes **at least two goals** aligned with one or more dimensions/objectives of the Engaged Department Rubric
 1. The first goal should address how to enhance department capacity for enhanced student learning and/or retention by integrating ethical reflection through community engaged learning. This may take the form of educationally meaningfully curricular or co-curricular community engagement or through classroom based civic rich experiences.
 2. The second, and any additional goals, are fully determined by department priorities for community engagement, as an intersecting and mutually supportive component of ethics and equity related work.

ILLUSTRATIVE EXAMPLE:

PRIORITY ISSUE: *To decide whether to grow ICELER as part of the department curriculum, we need systematic data to be able to make the case to faculty in our department and to increase student awareness of opportunities. Beyond courses taught by those faculty participating in the grant, the department offers a number of courses/course sections that include some sort of community engagement or outreach activity but the department doesn't have any systematic information on the types of activities (for example, civic rich classroom-based assignments, indirect or direct service learning), the degree to which these activities are aligned with specific learning objectives, including but not limited to those related to applied ethics. Based on a brief survey conducted during a faculty meeting, it is also not clear that learning from these activities is assessed. Similarly, the department lacks systematic feedback from internship sites, community organizations, etc. with whom students engage in course activities. The department sets up gathering this evidence as a goal.*

RUBRIC ALIGNMENT: *Dimension II: Faculty Support & Community Engagement; Component: Curricular Integration, Faculty Involvement and Support; Dimension IV: Student Support and Community Engagement; Dimension V: Departmental Planning*

ILLUSTRATIVE GOAL STATEMENT: *Gather baseline data to improve departmental planning and*

- Each department may elect to set more ambitious goals beyond the two-goal minimum should their cross-cutting priorities and capacity support it.
- **Each goal includes measurable objectives** that will help generate evidence that the specific goal can be achieved. Each department will determine the appropriate number of objectives for their plan. Objectives address the prompt – as “evidenced by” and address concrete steps/actions. This section should discuss the types of evidence that the team plans to gather as evidence.

ILLUSTRATIVE EXAMPLES:

GOAL: *Gather baseline data to improve departmental planning and assessment of community engagement.*

As evidenced by:

Objective 1. Collaborate with the ICELER team and Institute for Engaged Learning to identify key attributes to guide a systematic review of department syllabi.

Objective 2. Conduct a systematic review of departmental course syllabi for evidence of the integration of community engaged learning activities [includes assessment of learning].

Objective 3. Based on review, conduct focus groups with external partners to gather feedback on partner priorities and the quality student engagement

- Each plan includes a short section summarizing **key personnel** from the department that will be involved in implementing the plan in 2022-23 and how.
- Each plan includes a section on **stakeholder engagement** in which teams discuss their current thinking and plans of 2022-23 to involve stakeholders on and off campus as part of implementing their plan. Here are some examples: students (high school, undergraduates, graduate students), faculty, campus administrators or staff, community residents or leaders, parent groups, K12 teachers, clinicians, government officials, industry representatives, community organizations, etc.). Make sure to discuss how each stakeholder is relevant to implementing the action plan and the types of roles they will hold. The research recognized that plans may change over time so consider this a living plan.
 - **“Call a friend”** - Each plan includes a section where departments identify specific areas or tasks that would benefit from additional support from the research team [or others TBD] to aid the department in successfully implementing the action plan in 2022-23.
 - Include a **budget** with your plan that includes grant funds that will be utilized, including but not limited to community engagement, as well as any other funding/resources (if any) you plan to tap into to implement the plan.
- **Formative Plan Feedback Session - Tuesday, May 17th, 2022.**
 To support action plan development, the **MAY FLC meeting** will be devoted to gathering formative feedback on each department’s working ideas and action steps. In effect, each department team will present a rough draft of components of their plan to the grant advisory board and additional stakeholders. Feedback received can be woven into the final report due June 1st.
 - **Audience:** Department teams will present to the ICELER Advisory Board, key school personnel, core campus stakeholders, and select community stakeholders identified by each department.
 - **Purpose:** This presentation provides an opportunity for each department to present a summary of their findings, priorities, and preliminary action steps based on work from spring 2022. This meeting is a final opportunity to solicit and receive feedback from the advisory board and other key stakeholders to refine the action plan.
 - **Time and Structure:** Each department will have **20 minutes to present their summary**. This will be followed by 10 minutes of general Q & A. Once both teams have presented, and general comments offered, advisory board members and teams will participate in a World Café-style activity to gather feedback from the full range of participants. Guiding questions for the World Café will be drawn from those generated through each team’s presentation. More information on the World Café method is available [HERE](#).

Revised Individual Teaching Portfolio and Essay: **Due date: on or before Monday, June 15th, 2022.**

If this deadline proves a barrier to completion, please let Grant, Justin or Mary know and we can work with you to identify a later date. **Portfolios should be uploaded to the ICELER Canvas site via the “21-22 End of Year Report Module” or through the Assignments Tool.**

- **Content and Format:** Each portfolio should include updated information for 21-22:
 - **An updated course syllabus if you have made changes over the course of the 21-22 AY.** **Changes** to the revised syllabus specific to ethics through community-engaged learning **should be highlighted/annotated including** but not limited to **learning goals and objectives, assignments, assessments**. If you did not make changes, please note this in your report. Please upload your syllabus in either case.
 - **Implemented ethics through community-engaged learning activity(ies) and assignment(s).** If the assignment includes changes from what was submitted last year, please highlight/annotate these alterations. Make sure to provide a detailed description if the activity/assignment includes ***civic rich content as well as direct/indirect community engagement***. If there are no changes, please note this in the narrative and upload your most recent assignment/activity.
 - **An updated reflection strategy planning table.** Please review and update what you submitted last year to reflect what you implemented during 2021-22. The reflection strategy table describes your integrated design, facilitation plan, specific reflection activities, and assessment plan for ethical inquiry and reflection in your course. Draw on models and resources that we have used over the course of the grant.
 - **Upload representative examples [e.g., exemplar <-> underdeveloped] of course level, student reflection responses, including how they were assessed for quality** from the most recent iteration of your ICELER course(s). De-identify any identifiable student information such as names and student ID numbers (use pseudonyms).
 - **Reflective Essay Prompts:**
 - Given your work on the grant so far, what activities assignments, etc. are you proud of? Why?
 - Select a critical incident that occurred while teaching your ICELER course this past year. **Critical incidents** can be thought of as a significant or memorable happening that is: a) considered significant, problematic, or otherwise memorable and b) has consequences for personal change and development.
 - Describe the incident in detail.
 - Examine the incident from the standpoint of how it reflects both your growth as an educator **and** intersects with a roadblock/tension that you have encountered in fostering student learning and engagement through ethical reflection and community-engaged learning [e.g., service learning, engaged research, civic rich course content, etc.].
 - Articulate what you have Learned about yourself and what future action you want to take as a result (e.g., do more of X, learn more about X, rethink Z; stop P, etc.).

Appendix E:

ICELER Critical Reflection Strategy Guide

The following resource was created for and distributed to the FLC members during the first year of the community of practice. The guide was referenced through the FLC and faculty were asked to use these principles as well as the reflection strategy design table included to assist them in developing greater intentionality in their use of critical reflection inside and outside the classroom.

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Developing a Critical Reflection Strategy to Support Ethical Inquiry in I-CELER

Design Premises:

- **Critical Reflection (CR)** refers to that part of experiential learning that generates, deepens and documents learning. It is a reasoning and meaning-making process that is analytical, integrative, assessable, subject to public critique and is structured/guided (Ash and Clayton 2009).
- Everything is reflection worthy; hence, care is needed to support learners attending to the dimensions of experience that are of interest, in this case, to ethical inquiry.
- CR can be designed iteratively and build on itself cumulatively.
- CR can be designed to generate learning outcomes that include knowledge (cognitive learning), skills (affective and psychomotor learning), as well as attitudes, values, dispositions and behaviors (affective learning).
- Guidance whether through written prompts, oral facilitation or other means should enable learners to generate learning, including assisting them to articulately, coherently, and cohesively document that learning and to prompt future cycles of action and inquiry.

Design Guidelines:

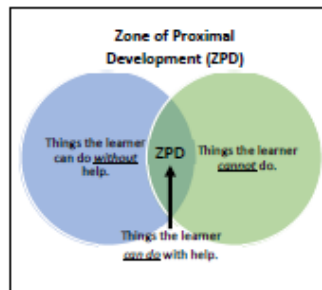
- CR strategies enable robust processing of experiences that enhance and focus learning that can be generated through experience.
- **Remember to use the 4 C's of Reflection:**
 - **CONTINUOUS:** provide learning opportunities to reflect before, during, and after the experience. The most common error that designers make is to limit reflection until after the experience. Improvements in CR capacity improve with time, practice and scaffolding. When integrating only within a course but across a program of study in order to build capacity for metacognition and critical consciousness building. Remember anything is reflection worthy. It is helpful to use a pre-mid-post structure, relative to the unit of time (session, week, semester, etc.), that focuses learner attention on changes in their assumptions and reasoning processes and on progress toward meeting objectives.
 - **CONNECTED:** Experience, including service and community-based experiences, bring theories, concepts and statistics to life in palpable, contextualized and unscripted ways. Effective designers of CR, make sure to draw clear connections between the experience and the frame/lens through that should be applied to the experience. Designers can use a variety of means to communicate the connection between academic content, as well as, other categories of learning (professional, civic, personal, etc.) and "the experience" (e.g. syllabus, assignment instructions, lecture, etc.)
 - **CHALLENGING:** CR requires stretching learners outside of their comfort zone to explore more difficult or challenging questions. It requires that the facilitator balance challenging learners while creating a supportive, safe space for learners to express doubt, frustration, and inspiration.
 - **CONTEXTUALIZED:** the mode of reflection/reflection mechanism should reflect the setting, be scaffolded appropriate to the learner.
- **A reflection strategy is a plan for integrating critical reflection mechanisms.** Reflection strategies should answer four questions:
 - *When do we reflect?* (at what points during the experience, course, program, etc.)
 - *Why do we reflect?* (toward what learning objectives)
 - *Where do we reflect?* (in what settings? Simulation, clinic, in a chat room, etc.)
 - *Who reflects?* (undergraduate students—alone, together in a large group, small groups, with near peers, interprofessionally, business professionals, laypeople, graduate and undergraduate students, etc.)
- **Reflection mechanisms are activities/tools that offers the means of how learners will reflect on/through their experiences.** A reflection mechanism answers the question of "How do we reflect?" with what guidance and materials, in what structure, etc. Some examples of reflection mechanisms/modes include:
 - Oral Prompts and Discussion
 - Written Prompts
 - Portfolios
 - Arts and/or multi-media (film, photography, drawing, comics, music, tweets, podcasts, etc.)
 - Large Group & Small Group
 - Simulations/activities – role play, "stand and declare," games, ethics bowl
 - Individual Reflection
 - Out-of-class Reflection

The possibilities are limited only by the designer's creativity.

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- **When designing a reflection strategy or mechanism, make sure to consider the following:**
 - Who are the learners [what experience, skills, preparation do they bring and not bring]?
 - Who is/are the facilitators, if present [what experiences, skills, etc. do they bring and not bring]?
 - What are the objectives?
 - What are the constraints?
- **Generating learning through CR should include the following steps:**
 - Detached description of the experience
 - Examination of the experience in light of specific learning objectives [as manifest in a theory, concept, etc.]
 - Articulate Learning for each learning objective

- **To generate assessable learning, design CR aligned with desired learning objectives and goals.** Make sure to structure activities and assignments at the appropriate level of learning. Remember to consider the learners' zone of proximal development (Vygotsky 1978) in your design. **Scaffolding** is the term used to refer to the mechanisms, strategies and tools that address the learner's ZPD (Wood, Bruner and Ross, 1986). Scaffolding reflects intentional decisions by designers to provide learners the supports during the learning process, tailored to their needs of the individual and collective needs of learner in mind, and with the intention of helping him/her achieve their individual or course learning goals. Here are some **examples of scaffolding**:



- Assess the learner's current knowledge and experience with the content, skills or environment.
- Relate the content to what students already understand or can do.
- Break a task into small, more manageable steps that include opportunities for intermittent feedback.
- Use a mix of verbal and non-verbal cues and prompts to support learners.

- **Refrain from over reliance on generic prompts [e.g. what happened? What does it mean?] when seeking to nudge learners toward a deeper understanding or increased skill level.** There are an innumerable array of meanings embedded in any experience. Without some degree of framing to guide learners, they may miss the phenomena or the situations that you hoped they would attend to and learn from. Enculturating learners to think and act as ethical agents spans how learners see themselves within and across multiple communities of practice. Hence, CR involves supporting learners to attend to both what "they are seeing and not seeing" about moral situations as they negotiate their current and future selves as individuals, global citizens, members of the scientific community and as working professionals. Use prompts to aid learners to focus their attention.
- **Be aware of power dynamics in the classroom and community.** Open and honest learner engagement in CR is strengthened when they feel safe and comfortable. In order for group members to express their thoughts and opinions they must feel that they can do so without fear of attack or condemnation. It is the facilitator's job to create such an environment, to monitor participants comfort levels, and to take the necessary actions to maintain a safe space. For designers of CR, part of attending to power include developing and understanding of and planning for variation among learners in terms of their abilities, needs, fears, and apprehensions.

Additional Resources on Reflection:

- Reed, J. & Koliba, C. (1995). *Facilitating Reflection: A manual for leaders and educators.* http://www.uvm.edu/~dewey/reflection_manual/
- Eyler, J., Giles, D.E., Schmiede, A. (1996). *A Practitioner's guide to reflection in Service-Learning: Student voices and reflections.* <https://leduccenter.files.wordpress.com/2015/02/practitioners-guide-to-reflection-in-service-learning.pdf>
- Each department now has a copy of Ash, Clayton & Moses' *Learning Through Critical Reflection: A Tutorial for SL Students (Instructor Version)* for designing and facilitating critical reflection using the DEAL model. If you would like your own, please just email Mary for a copy as she has extra copies.
- Clayton, P.H. (2012). *10 Tips for Designing Critical Reflection.* Resource on file, IUPUI Center for Service and Learning.

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Reflection Strategy Development Table

Instructions: Use this table as an aid in organizing your reflection strategies for ICELER.

Design Question	Unit of Time [Semester/Week/Session]			Notes
	<i>Early</i>	<i>Middle</i>	<i>Late</i>	
<i>When is reflection in and on ethics occurring?</i>				
<i>Why are we reflecting? [state relevant learning objective(s), relevant category of learning desired, content, essential understanding, etc.]</i>				
<i>Where is reflection in and on ethics occurring?</i>				
<i>Who is reflecting?</i>				
<i>How are we reflecting on ethics? [identify the reflection mechanism(s)]</i>				

Appendix F:

Service Learning Course Design Instructor Self Assessment

During the second year of the FLC (2019-2020), faculty were asked to complete a self-assessment of the first iteration of their ICELER course, prior to coming to our community meeting. In session, members had an opportunity to share insights they had, feelings they had about this mode of teaching as compared to their normative approaches and identify opportunities where this saw opportunity to further their ICELER goals, whether through direct forms of service-learning and community engaged teaching and/or through the integration of civic-rich examples and modules in the classroom. The research team created the formative assessment tool by adapting a taxonomy developed at IUPUI (Hahn, Hatcher, Price & Studer, 2016). The assignment instructions and self-assessment rubric are listed below.

ICELER SL Faculty Course Self-Assessment

 Published

 Edit



Reflecting on your use and readiness for service learning and community engagement





To kick start the year, take a few minutes to self-assess your current teaching practice in the first iteration of your ICELER course as it relates to service learning and community engagement. To date, our FLC hasn't focused on the use of community engagement or community-based learning in the classroom. This year, integration of experiential learning activities that engage students in and with different constructs of community will be a key focus.



This exercise focuses on use service learning as a teaching strategy, with particular attention given to the goals of ICELER. Service learning isn't the only teaching method that integrates community into the learning experience but it is one that emphasizes core principles of community engagement.

Not everyone in our FLC will necessarily have experience with using SL. Rather the goal of this assessment is to offer a mirror that supports you to bring into focus areas where you already have foundation that can be enhanced, but didn't realize it, or alternatively to point to new dimensions of your teaching practice that remain emergent but that you now want to prioritize to support learners in moving from ethical awareness to engagement with ethical practice.



This assessment asks you to consider your current and desired practice for each of the course attributes presented. There are two options available to complete it:

 **As a PDF:**  Print it out, mark it up, then scan and upload it to Canvas.

As a  **Word document** : Complete your self assessment electronically then save the file and upload it to Canvas.

This assessment is **due in Canvas on Monday, September 23rd**. Please bring a copy of your completed assessment with you to our meeting.



I-CELR Course Design – Service Learning Faculty Self-Assessment [v2.0] -DRAFT



Instructions: Use this self-assessment to reflect on your current use of service learning (SL) or, in the case you don't use this method currently, your readiness for integrating this teaching strategy into your ICELER course]. Read through the course attributes below. Then, rate yourself in light of your *current* practice and your *desired* practice. If an attribute is absent, please explain in the cell provided.

SL Course Attributes	Attribute Absent	Attribute Minimally Integrated	Attribute Moderately Integrated	Attribute Deeply Integrated
1) Reciprocal partnerships and processes shape the community activities, course design, and community outcomes.	(Briefly describe your rationale in this cell.)	The instructor contacts a community organization to host students and provides a brief overview of the course (e.g., learning outcomes, syllabus) and the purposes of the community activities.	The instructor meets with the community partner(s) to discuss the course (e.g., preparation/orientation of students, learning outcomes, syllabus), and to identify how the community activities can enrich student learning and benefit the organization.	The instructor collaborates with and learns from the community partner(s) as co educators in various aspects of course planning and design (e.g., learning outcomes, readings, preparation/orientation of students, reflection, assessment) and together they identify how the community activities can enrich student learning and add to the capacity of the organization.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9
2) Community activities enhance academic content, course design, and assignments.	(Briefly describe your rationale in this cell.)	The instructor includes community activities as added components of the course. The syllabus conveys this information.	The instructor utilizes the community activities as a "text" to provide additional insight into student understanding of academic content and ability to complete assignments. The syllabus describes the relationship of the community activities to learning outcomes.	The instructor integrates the community activities to a relevant public issue(s) as critical to student understanding of academic content and their ability to complete assignments. The syllabus provides a strong rationale for the relationship of the community activities to learning outcomes.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9
3) Ethical and civic competencies (e.g., knowledge, skills, disposition, behavior) are well integrated into student learning outcomes.	(Briefly describe your rationale in this cell.)	The instructor focuses on discipline-based content with little explicit attention given to civic learning or development of civic competencies across course activities. Ethics as a civic competency remains implicit.	The instructor focuses on discipline-based content linked civic learning and civic competencies. Course includes at least one ethics learning objective, framed in terms of civic learning and civic competencies (e.g. AAC&U, IUPUI Civic Minded Graduate, IUPUI PLUS+ etc.) and connected occasionally to relevant community activities.	The instructor consistently integrates discipline-based content, relevant community activities with civic learning and civic competencies (e.g. AAC&U, IUPUI Civic Minded Graduate, IUPUI PLUS+ etc.), including specific ethics learning objectives, throughout the course. The instructor emphasizes the relevance of the community activities to the public purposes of the discipline in society.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9

I-CELR Course Design – SL Faculty Self Assessment V2.0: September 2019;Adapted from IUPUI SL Course Taxonomy Fac Self-Assessment V 2.0 (Hahn, Hatcher, Price & Studer, 2017); last update mfp,09102019



I-CELR Course Design – Service Learning Faculty Self-Assessment [v2.0] -DRAFT



SL Course Attributes	Attribute Absent	Attribute Minimally Integrated	Attribute Moderately Integrated	Attribute Maximally Integrated
4) Dialogue with others across difference (e.g., racial, ethnic, social economic status, sexual orientation) occurs regularly.	(Briefly describe your rationale in this cell.)	The instructor, the course, and community activities offer students occasional opportunities for interaction and dialogue with diverse others (e.g., race, ethnicity, social economic status, gender, sexual orientation, role).	The instructor, the course, and community activities engage students in periodic interaction and dialogue with diverse others (e.g., race, ethnicity, social economic status, gender, sexual orientation, role), as well as interactions and dialogue with peers across a range of experiences and diverse perspectives. Some attention to scaffold dialogue and interaction (e.g., recognizing implicit bias, listening skills) is evident through course activities.	The instructor, the course, and community activities engage students in frequent interaction and dialogue with diverse others (e.g., race, ethnicity, social economic status, gender, sexual orientation, role), as well as interactions and dialogue with peers across a range of experiences and diverse perspectives. Consistent attention to scaffold dialogue and interaction (e.g., recognizing implicit bias, listening skills) is evident through course activities.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9
5) Critical reflection and its ethical dimensions are well integrated into student learning.	(Briefly describe your rationale in this cell.)	The instructor asks students to create reflective products following community activities. The instructor provides general references connecting reflection to ethical inquiry and ethical practice but is implicitly connected to academic content. Instructor feedback is absent or is limited to a "completion" grade.	The instructor designs critical reflection activities and products about the community activities that connect the experience(s) to academic content, and require explicit engagement with ethical inquiry. Course activities occasionally invite analysis of ethical situations and lead to new action. Instructor insures that students receive periodic feedback throughout the course.	The instructor builds student capacity to critically reflect and develop products that explore the relevance of the experience to academic content, use critical thinking to analyze social issues, and recognize systems of power. Course activities systematically invite analysis of ethical situations and lead to new action. Instructors works with partners to insure that students receive ongoing feedback throughout the course.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9
6) Assessment is used for course improvement.	(if selected, briefly describe your rationale in the appropriate cell below.)	The instructor articulates the student learning outcomes to the class and assesses these through a few activities (e.g., reflection prompts, projects), as well as at the end of the course. Assessment may not include specific rubrics or measurement tools. Feedback from community partners is not solicited.	The instructor articulates the student learning outcomes to the class and uses a measurement tool to assess the service learning component of the course. Community partners may provide some feedback through traditional routes (e.g., project reviews).	The instructor and community partner(s) articulate the student learning outcomes to the class and use measurement tools to assess the service learning component of the course and influence on community outcomes.
	<i>Current State</i>	0	1 2 3	4 5 6 7 8 9
	<i>Desired State</i>	0	1 2 3	4 5 6 7 8 9

I-CELR Course Design – SL Faculty Self Assessment V2.0: September 2019;Adapted from IUPUI SL Course Taxonomy Fac Self-Assessment V 2.0 (Hahn, Hatcher, Price & Studer, 2017); last update mfp,09102019

Appendix G:

ICELER adapted Engaged Department Rubric Illustrative Excerpts

During the second year of the FLC (2019-20), participants were asked to complete an activity using the ICELER adapted Engaged Department Rubric. Each FLC member, as well as the department chairs for both departments, were asked to rate their department based upon 6 dimensions of department climate and culture that impact integration and sustainability of community engagement in academic departments. For each dimension and attribute, they were asked to respond based on their perceptions of where they would rate their department today versus where each thought their department should be in terms of a continuum spanning *Awareness Building*, *Critical Mass Building*, *Quality Building*, and *Institutionalization*. Faculty received a version of the rubric they could mark up and then were instructed to return their results and notes to the research team to collate, review and compile scores in advance of the FLC meeting.

A simple scoring schema was used (0 = cell not marked; .5, if the X was between cells; 1 pt. if a cell included an X) and scores compiled to create a departmental profile of their actual and desired collective responses. These were presented to each of the departments and began the foundation for discussion at the January meeting, and for subsequent strategizing and action planning in Feb – May that occurred both during and outside of FLC meeting time.

For this report, we have not included the entire rubric or all of the supporting material used in the grant. Rather, we have included images of **three of the six dimensions**:

Included:

- DIMENSION I: MISSION AND CULTURE SUPPORTING COMMUNITY ENGAGEMENT
- DIMENSION II: FACULTY SUPPORT AND COMMUNITY ENGAGEMENT
- DIMENSION III: COMMUNITY PARTNER, PARTNERSHIP SUPPORT & COMMUNITY ENGAGEMENT

Omitted:

- DIMENSION IV: STUDENT SUPPORT & COMMUNITY ENGAGEMENT
- DIMENSION V: ORGANIZATIONAL SUPPORT FOR COMMUNITY ENGAGEMENT
- DIMENSION VI: LEADERSHIP SUPPORT FOR COMMUNITY ENGAGEMENT

in the rubric along with a template of the convergence/divergence table used during the team debriefing at the January 28th, 2022 FLC meeting. For those interested in seeing the full rubric, references and supplementary resources, please contact Mary Price, pricemar@forumea.org or mfprice67@gmail.com or Grant Fore, gfore@iu.edu.

Cultivating Ethically Minded Community Engagement in Academic Departments:

An Assessment and Planning Tool to Advance Department Capacity

[aka. ICELER Engaged Department Rubric V.1]

(Do not distribute or use without permission from the authors)

About the rubric

The Integrated Community Engaged Learning through Ethical Reflection (ICELER) Engaged Department Rubric is designed for use by academic departments. The rubric is intended to support departments in understanding how they can encourage and facilitate an inclusive climate conducive to educationally meaningful and scholarly community engagement. The rubric's dimensions indicate aspects of departmental climate, culture and practice that contribute to community engagement as a deep, pervasive, and integrative dimension of a unit's mission, collective identity, and practice. This rubric is based on prior work conducted by Kevin Kecskes and colleagues (2006, 2013, 2015) on supporting the institutionalization of community engagement in academic departments. The current rubric has been significantly amended draw on insights from recent literature related to intersections between community engagement, broader impacts and STEM, ethics education and diversity, equity, and inclusion (DEI).

Who should complete this rubric?

There are multiple ways to make use of this tool. Much depends on the unit's goals for community engagement and applied ethics as a dimension of department work. The tool can be used individually among department leaders as a reflective exercise. Alternatively, a department chair might convene sub-groups of faculty to complete the assessment and then integrate the results into structured conversations with the entire department in tandem with other change initiatives on campus (e.g., strengthening the STEM pipeline, advancing the UN Sustainable Development Goals (SDGs), expanding access to high impact educational practices (HIPS), etc.). For strategic planning, some units might bring together members of their departmental advisory boards, student leaders, staff, and others to respond to dimensions of the rubric.

How to use this rubric:

This rubric is designed to contribute to unit capacity building by supporting critical reflection and formative assessment on community engagement. It is not intended to be used for summative evaluation. The rubric includes six **dimensions** that specify **components** of a departmental climate and culture that facilitate and sustain community engagement as an integrated dimension of work in academic units. The rubric is organized by "stages", but this should not be taken to indicate that development is a unidirectional process; rather, departmental cultures change over time and are not stagnant.

Relationship to ICELER

ICELER is a curricular framework that stands for *Integrating Community Engaged Learning through Ethical Reflection*. The purpose of ICELER is to make STEM ethics learning more meaningful and STEM education more responsive to the whole person. ICELER focuses on STEM learners' development as

ethically responsible beings across their personal, professional, and civic lives. ICELER regards ethical growth and development as a lifelong, relational process that is facilitated through critical reflection on the ethical dimensions of experiences that students, as well as instructors, have through participating in STEM projects and partnerships that are situated in and involve communities. Within this framework, students, faculty, staff, and community members all hold joint roles of learner and teacher. ICELER applies both to individual courses and to programs. While individual course changes are necessary for improving STEM ethics education, the long-term growth and sustainability of ICELER depends on a department's climate, norms, and structures to support that development. An assumption within ICELER is that a department's ethos regarding community engagement, both how it is conceived and practiced, is a significant factor in strengthening and sustaining ICELER outcomes for students, faculty, and communities.

Intersections with DEI

This rubric has been expanded to include recent research and scholarship devoted to the institutionalization of service learning and community engagement (SLCE) in higher education, particularly research into the systemic barriers that impede the integration of community engagement into academic work (e.g., teaching, student learning, research, and service). Many of these barriers parallel those to advancing diversity, equity, and inclusion. This research indicates that faculty and students from underrepresented and marginalized groups (e.g., women, people of color, sexuality, ability, ways of knowing, etc.) are disproportionately represented among educators, researchers, and professionals whose practices include civic and community engagement (e.g., Eatman, Ivory, Saltmarsh, Middleton, Wittman & Dolgon; 2018; O'Meara, 2016).

As STEM departments seek to address structural barriers to participation in STEM, to improve the quality of science and technology by expanding the diversity of those producing it, as well as advance the public trust, it is critical for academic units to grapple with the intersection between DEI and community engagement. Cultivating departmental cultures that acknowledge and support diverse ways of knowing and being across STEM professions and disciplines induces ongoing engagement with and reexamination of moral values. Catalyzing change means that these processes span multiple levels: individual, departmental, campus, and at the field levels. This rubric is a learning tool to contribute to these efforts. It invites each person to examine an essential question of ethics: *How should I as a human being live? And further, as a collective, asking: How should we as human beings live together?* In applying these questions to academic settings, these questions may be worded differently, for example: *How do we work together (at the levels of the department, campus, and discipline) to effectively prepare our students for lives as ethical and civic-minded engineers, scientists, and citizens? How do we work together to effectively address the pressing problems impacting our communities and the planet?*

DIMENSION I: MISSION AND CULTURE SUPPORTING COMMUNITY ENGAGEMENT

Primary components for institutionalizing community engagement in academic units are the development of a department-wide mission, definitions, and organizational culture for engagement that provide meaning, focus, emphasis, and support for community-engaged efforts (Holland, 2000; Zlotkowski, 2000). Departments are the smallest social unit through which a discipline or field can transmit and reproduce its educational values, approaches to knowledge making, and contributions to society. The department communicates and enacts an understanding of disciplinary practice reflecting shared values and principles. A department's values and principles (and their institutionalization and their determination of priorities) influence awareness and understanding of the ethical significance and implications of community engagement.

	STAGE ONE <i>Awareness Building</i>	STAGE TWO <i>Critical Mass Building</i>	STAGE THREE <i>Quality Building</i>	STAGE FOUR <i>Institutionalization</i>
MISSION	The formal mission of the academic unit does not mention or allude to community engagement or its ethical significance.	The formal mission of the academic unit alludes to community engagement and its ethical significance (e.g., suggests "application of knowledge," "real-world teaching," "broader impacts," etc.)	The formal mission of the academic unit explicitly mentions community engagement and its ethical significance (e.g., "enhances the diversity and inclusion of our unit," "fosters public trust," "expands public participation in and understanding of science," etc.).	The formal mission of the academic unit explicitly mentions and emphasizes community engagement. Guiding principles or values are included to highlight the unit's understanding of the ethical significance of community engagement to the teaching, research, and service arms of the unit.
GUIDING PRINCIPLES	There is no unit-wide consideration of the shared moral values that guide the department's work in teaching, research, and service, including how these values should be applied in the practice of community engagement.	There are generally understood and accepted moral values that guide the department's work in teaching, research, and service; however, there are no public statements that mention expectations for how these values might guide practice, including the practice of community engagement.	The department has a formal statement of shared moral values and their relationship to unit priorities in teaching, research, and service. The statement of moral values is shared in public outlets (e.g., website, strategic plan, assessment plans, reports, course syllabi, faculty, and staff annual reviews, etc.). Occasional efforts are made to expand understanding and application of these moral values across teaching, research, and service (including community-engaged teaching, research, and service). The department is beginning to integrate these values into department functions and systems (e.g., hiring, merit review, assessment, orientation, etc.)	The department has a widely accepted, formal statement of its moral values and their relationship to unit priorities in teaching, research, and service. The statement of moral values is shared in public outlets (e.g., website, strategic plan, assessment plans, reports, course syllabi, faculty, and staff annual reviews, etc.). The department makes ongoing efforts to sustain and deepen understanding and application of these moral values across teaching, research, and service (including community-engaged teaching, research, and service). The department draws on its moral values statement systematically to guide planning and accountability efforts. The values are built into general department functions and systems (e.g., hiring, merit review, orientation, etc.).
DEFINITION OF COMMUNITY-ENGAGED TEACHING	There is no unit-wide definition for community-engaged teaching (including definitions for the terms such as "service-learning," "community-based learning," "community-based research," "project-based learning," "people-centered design," "civic science," etc.).	There are a few, informal notions of community-engaged teaching in the unit, including the principles that can guide it; these notions are used inconsistently to describe a variety of experiential learning and curricular and co-curricular service activities. Community-engaged teaching and its ethical significance for student learning and outcomes are unclear.	The unit has a formal definition for community-engaged teaching, but inconsistency remains in the understanding, acceptance, and application of the term. Within the unit definition (or supporting documentation) the ethical significance of community-engaged teaching for student learning and outcomes is alluded to.	The unit has a widely accepted, formal definition for community-engaged teaching that is applied consistently in courses and co-curricular experiences. Within the unit definition (or supporting documentation), the ethical significance of community-engaged teaching for student learning and outcomes are explicit and communicated through a variety of public documents (e.g., website, strategic plan, assessment plans, reports, course syllabi, annual reviews, etc.).
DEFINITION OF COMMUNITY-ENGAGED RESEARCH	There is no unit-wide definition for community-engaged research (including definitions for the terms such as "community-based research," "universal design research, community-engaged participatory research, or" place-based research,")	There are a few, informal notions of community-engaged research in the unit, including the principles that can guide it; these notions are used inconsistently to describe a variety of applied, experiential or service activities. Community-engaged research and its ethical significance (e.g., the range of effects of research, attention to public problem solving, public trust, or student learning and outcomes) are unclear.	The unit has a formal definition for community-engaged research, but inconsistency remains in the understanding, acceptance, and application of the term. Within the unit definition (or supporting documentation) the ethical significance of community-engaged research (e.g., the range of effects of research, attention to public problem solving, public trust, or student learning and outcomes) is alluded to.	The unit has a widely accepted, formal definition for community-engaged research that is understood and applied consistently in the department. Within the unit definition (or supporting documentation) the ethical significance of community-engaged research (e.g., the range of effects of research, attention to public problem solving, public trust, or student learning and outcomes) is expressed in public documents (e.g., website, strategic plan, assessment plans, reports, course syllabi, annual reviews, etc.).
DEFINITION OF COMMUNITY-ENGAGED SERVICE	There is no unit-wide definition of what constitutes community-engaged service or the principles that guide it. Community engagement is not acknowledged as a dimension of ethical professional practice.	There are few, informal notions of community-engaged service in the unit, including the principles that can guide it; these notions are used inconsistently to describe a wide variety of activities conducted in, for, and with external communities.	The unit has a formal definition of community-engaged service, but there is inconsistency in the understanding, acceptance, and application of the term and the principles that guide it. There is a growing awareness that activities conducted in and for communities evoke moral values distinct from those conducted in and with external communities.	The unit has a formal, widely accepted definition for community-engaged service that is applied consistently as an as a dimension of ethical professional practice. There is a shared understanding that those activities conducted in and for communities evoke moral values distinct from those conducted in and with external communities. The relationship between community-engaged service's role in advancing shared moral values and priorities is expressed in public documents (e.g., website, strategic plan, assessment plans, reports, course syllabi, faculty and staff annual reviews, etc.).
CLIMATE AND CULTURE	The organizational climate and culture of the department is not supportive of community engagement; department members may disagree on the relevance of community engagement to the success of the unit.	A few faculty and staff concur that the organizational climate and culture of the department is somewhat supportive of community engagement. Support may be perceived as narrowly limited to certain roles or domains of work (e.g., appropriate for service but not teaching or research; appropriate for lecturing and clinical faculty or staff but not research faculty).	Many faculty and staff concur that the organizational climate and culture of the department is supportive of community engagement. There is a growing number of faculty and staff that recognize community engagement as legitimate work in teaching, research, service, and administration. Faculty and staff can point to emergent efforts to broaden participation in community engagement.	Most faculty and staff concur that the organizational climate and culture of the department is highly supportive of community engagement. Most faculty and staff that recognize community engagement as legitimate work in teaching, research, service, and administration. Faculty and staff can point to sustained efforts to broaden participation in community engagement.
COLLECTIVE SELF-AWARENESS AND ACTION	Unit faculty and staff do not assess community engaged teaching, research, or service for their effectiveness or their relationship to shared unit values and priorities.	Unit faculty and staff rarely assess community engaged teaching, research, and service for their effectiveness; Assessment may occasionally lead to adjusting practices toward improvement. Connections to advancing shared unit values and priorities are implicit or inconsistently drawn.	Unit faculty and staff periodically assess community-engaged teaching, research, and service for their effectiveness. Assessment inconsistently attends to the ethical significance and impacts of this work on communities, partnerships, students, or the department. Occasional efforts (e.g., professional development, ad hoc committees, participation in services offered by centralized campus units that support community engagement, etc.) are in place to support and encourage faculty and staff to adjust practices toward continual improvement.	Unit faculty and staff consistently assess the practices of community-engaged teaching, research, and service for their effectiveness. Unit or institutional systems exist to support assessment that attends to the ethical significance and impacts of this work on communities, partnerships, students, and the department. Ongoing supports (e.g., professional development, sabbaticals, merit increases linked to improvements, adjusted workload opportunities, integration of reflection into dept. meetings, ties to centralized campus units that support community engagement) are in place to encourage learning from assessment. Faculty and staff proactively adjust practices as needed to continual improvement.

DIMENSION II: FACULTY SUPPORT AND COMMUNITY ENGAGEMENT

One of the essential factors for institutionalizing community engagement in academic departments is faculty participation in implementation and advancement of the unit's community-engaged efforts (Battistoni et al., 2003; Kecskes, 2006b, 2008c; Wergin, 1994, 2003). Community engagement can be part of an effective strategy for attracting and retaining women, people of color, and other underrepresented faculty when it is recognized and supported as legitimate component of teaching, research, and service (O'Meara, 2016; Sturm, Eatman, Saltmarsh, & Bush, 2011).

	STAGE ONE <i>Awareness Building</i>	STAGE TWO <i>Critical Mass Building</i>	STAGE THREE <i>Quality Building</i>	STAGE FOUR <i>Institutionalization</i>
FACULTY KNOWLEDGE AND AWARENESS	Faculty members do not know what community engagement is or the moral values that guide it, and they do not know how community engagement can be integrated into teaching, research, or service.	A few faculty members know what community engagement is and the moral values that guide it, they and have a shared understanding of diverse ways community engagement can be integrated into teaching, research, or service.	Many faculty members know what community engagement is and the moral values that guide it, and they can articulate diverse ways community engagement can be integrated into teaching, research, or service.	Most faculty members know what community engagement is and the moral values that guide it, and they can articulate diverse ways community engagement can be integrated into teaching, research, or service.
FACULTY INVOLVEMENT AND SUPPORT	Faculty members do not support or advocate for community engagement, and they do not support introducing community engagement into the unit's mission or into their own professional work.	A few faculty members are supportive of community engagement, a few advocate for introducing it into the unit's mission or their own professional work. Participating faculty may be represented disproportionately by historically marginalized and underrepresented groups (e.g., people of color, women, first generation, etc.) or may hold non-tenure track appointments.	Many faculty members participate in community engaged teaching, research, or service and support introducing community engagement into both the unit's mission and faculty members' individual professional work. The department recognizes that faculty from historically marginalized and underrepresented groups may be disproportionately involved with community engagement and makes emergent efforts to support them. These efforts may extend to graduate students [i.e., future faculty].	Most faculty members participate in community engaged teaching, research, or service and support introducing community engagement into both the unit's mission and the faculty members' individual professional work. The department recognizes that faculty from historically marginalized and underrepresented groups may be disproportionately involved with community engagement and makes sustained efforts to support them. These efforts are designed to include graduate student mentoring.
CURRICULAR INTEGRATION	There are few, if any, courses that involve community engagement or outreach. For courses that may include community engagement, few if any, link engagement to course objectives and assessments; this includes applied ethics and civic learning such as ICELER. Community engagement may be isolated or limited to co-curricular or extracurricular experiences.	There are some courses that involve community engagement or outreach in the unit. Courses variably link community engagement to course objectives and assessments. A few of the courses explicitly address applied ethics and civic learning, like ICELER. There may be a few ICELER enhanced electives, but no required ICELER-enhanced courses built into major program of study. Student engagement with applied ethics and civic learning, like ICELER, may occur mostly through co-curricular or extracurricular experiences.	There are multiple courses that involve community engagement or outreach in the unit. Courses consistently link community engagement to course objectives and assessments. Some faculty are working to design their courses to be developmentally and culturally relevant to students and communities involved. Occasional effort is made to connect co-curricular or extracurricular community engagement experiences, including ICELER co-curricular experiences, with program curricula. Applied ethics is a recognized feature of the program of study that includes some electives, but also a few required ICELER enhanced courses.	There are numerous courses that integrate community engagement or outreach in the unit both within general education and as part of the major or minor. Courses consistently link community engagement to course objectives and assessments in developmentally appropriate and culturally relevant ways, mindful of the capacities of students and communities involved. There are ongoing efforts to connect co-curricular or extracurricular community engagement experiences with program curricula, including ICELER. Applied ethics is a distinctive feature of the program of study, which includes multiple electives and some required courses, including ICELER enhanced courses.
FACULTY INCENTIVES	Within the unit, faculty members are not encouraged to participate in community engagement activities; no incentives are provided (e.g., mini-grants, sabbaticals, funds for conferences, etc.) to pursue community engagement activities.	Faculty members are infrequently encouraged to participate in community engagement activities; a few incentives are provided (e.g., mini-grants, sabbaticals, funds for conferences, etc.) to pursue community engagement activities. Incentives may come mostly from soft funds or cash reserves.	Faculty members are often encouraged and are provided some incentives (mini-grants, sabbaticals, funds for scholarly conferences, etc.) to pursue community engagement activities. Funding for incentives includes a mix of internal and external sources; funding is not limited to soft funds and is built into the unit budget.	Faculty members are regularly encouraged and are provided many incentives (mini-grants, sabbaticals, funds for conferences, etc.) to pursue community engagement activities. Funding for incentives includes a mix of internal and external sources; funding is not limited to soft funds and is built into the unit budget.
REVIEW, PROMOTION, AND TENURE PROCESS INTEGRATION	The review, promotion, and tenure process at the departmental level does not reward community-engaged teaching, research, and scholarship. Faculty, particularly junior tenure-track faculty, are actively encouraged to limit community engagement in their teaching, research, or service until they have achieved tenure and promotion.	The review, promotion, and tenure process at the departmental level provides little reward for community-engaged teaching, research and scholarship. Departmental guidelines and evaluation criteria allude to community engagement, but there are no explicit criteria or metrics to evaluate how community engagement enhances teaching, research and service. Faculty mentoring across the unit varies broadly in the messages that mentees receive about the relevance of community engagement to promotion and tenure. There is a gap in the number of mentors in the unit trained to address the interests and ways of knowing of diverse faculty who value community engagement as a dimension of their work.	The review, promotion, and tenure process at the departmental level modestly rewards community-engaged teaching, research, and scholarship. Departmental guidelines and evaluation criteria mention community engagement; guidelines may not yet address clear sources of evidence and metrics to aid evaluation of how community engagement enhances teaching, research, and service. The department is actively working to provide access to culturally responsive mentoring for faculty who view community engagement as important to achieving excellence in their teaching, research, or service.	The review, promotion, and tenure process at the departmental level clearly and consistently rewards community-engaged teaching, research, and scholarship in which a faculty. Departmental guidelines and evaluation criteria address community engagement and provide clear sources of evidence and metrics that support evaluation of how community engagement enhances teaching, research, and service. The department is actively working to provide access to culturally responsive mentoring for faculty that view community engagement as important to achieving excellence in their teaching, research, or service.
DIVERSITY OF FACULTY REPRESENTATION	None of the community-engaged faculty in the unit hold tenure track positions. Participation in community engagement is disproportionately concentrated among non-tenure track faculty and staff and specifically, women, faculty of color and other marginalized, underrepresented groups.	A few of the community-engaged faculty hold tenure-track positions in addition to those from non-tenure track and staff positions. Participation in community engagement is disproportionately concentrated among non-tenure track faculty and staff and specifically, women, faculty of color, and other marginalized, underrepresented groups.	Community engaged faculty include many of the tenure-track and non-tenure track members.	Community engaged faculty include most of the tenure-track and non-tenure track members.

DIMENSION III: COMMUNITY PARTNER, PARTNERSHIP SUPPORT & COMMUNITY ENGAGEMENT

An important element for institutionalizing community engagement in academic departments is the degree to which the unit nurtures community partnerships and encourages community partners to play a role in advancing engagement efforts (Agre-Kippenhan & Charman, 2006).

	STAGE ONE <i>Awareness Building</i>	STAGE TWO <i>Critical Mass Building</i>	STAGE THREE <i>Quality Building</i>	STAGE FOUR <i>Institutionalization</i>
PARTNERSHIP AWARENESS & DEVELOPMENT	<u>None of faculty in the department can identify</u> community groups, locally or globally, where unit-related work or internship placements occur or that partner consistently with the academic unit. Knowledge of existing relationships, if present, is limited to staff.	<u>A few</u> faculty in the department <u>can identify</u> community groups locally or globally that <u>periodically host</u> unit-related worksites or internship placements. Existing partnerships may emphasize short-term, transactional relationships and activities.	<u>A critical mass of faculty</u> in the department <u>can identify</u> community groups locally or globally that <u>regularly host</u> unit-related worksites, community-based or service-learning courses or internship placements. There is a <u>growing interest</u> among faculty to <u>expand the range of partnerships</u> in the unit beyond professional groups, industry partners and government agencies to include other communities (e.g., lay groups, neighborhoods, preK-12 schools, issue-based non-profits) to advance the shared public interests of the unit and the community. Existing partnerships <u>involve a mix of short- and long-term relationships</u> . There are <u>emergent efforts in place to strengthen coordination of community-campus partnerships to advance shared interests</u> of the unit, the communities impacted and the public good.	<u>A critical mass</u> of faculty in the department <u>can identify</u> community groups, locally or globally, with whom they are in <u>sustained, reciprocal partnerships</u> . The collaborations, based on long-term relationships and fostering trust, are viewed by academic and community partners as mutually beneficial; explicit attention is given cultivating resource, power sharing and shared authority for decision-making, etc. There are <u>coordinated efforts in place to sustain a diverse array of community-campus partnerships</u> (e.g., lay groups, neighborhoods, preK-12 schools, issue-based non-profits, professional groups, industry partners, government agencies) <u>to advance the shared interests</u> of the unit, the communities impacted and the public good.
MUTUAL UNDERSTANDING & COMMITMENT	There is <u>no understanding between departmental and community representatives</u> regarding each other's long-range goals, assets, priorities, timelines, resources, and capacity for developing and implementing community engagement activities.	There is <u>some understanding</u> between unit and community representatives regarding each other's long-range goals, assets, priorities, timelines, resources, and capacity for developing and implementing community engagement activities.	There is <u>good understanding</u> between departmental and community representatives regarding each other's long-range goals, assets, priorities, timelines, resources, and capacity for developing and implementing community engagement activities.	There is <u>deep, mutual understanding between departmental and community representatives</u> regarding each other's long-range goals, assets, priorities, timelines, resources, and capacity for developing and implementing community engagement activities.
COMMUNITY PARTNER VOICE	Community partners are <u>not invited to express their</u> priorities, assets, resources, and capacity when working with department members.	Community partners are <u>rarely invited</u> to express their priorities, assets, resources, and capacity.	Community partners are <u>often invited or encouraged</u> to express their priorities, assets, resources, and capacity; the department supports these efforts to build and sustain trust by conducting occasional assessments of community partners to assess the effectiveness, relevance, and outcomes of community engagement activities in teaching, research, and service. Findings may be used <u>selectively</u> to strengthen departmental policies, practices, or programs.	Community partners are <u>routinely invited and encouraged</u> to express their priorities, assets, resources, and capacity; the department supports these efforts by regularly conducting assessments of community partners to assess the effectiveness, relevance, and outcomes of community engagement activities in teaching, research and service. Findings are used <u>consistently</u> to strengthen departmental policies, practices, or programs.
COMMUNITY PARTNER LEADERSHIP	There are <u>no opportunities</u> for community partners to assume leadership roles in unit activities (e.g., serve on advisory and faculty hiring or review committees, facilitate student reflection, instruct, collaborate on research).	There are a <u>few opportunities</u> for community partners to assume leadership roles in core unit activities (e.g., serve on advisory and faculty hiring or review committees, facilitate reflection, instruct, collaborate on research).	There are <u>many opportunities</u> for community partners to assume leadership roles in core unit activities (e.g., serve on advisory and faculty hiring or review committees, facilitate student reflection, instruct, collaborate on research) but there is no coordination of these opportunities.	The unit maintains <u>formal processes</u> that enable community partners to assume leadership roles in core unit activities (e.g., serve on advisory and faculty hiring and review committees, facilitate student reflection, instruct, collaborate on research).
COMMUNITY PARTNER ACCESS TO RESOURCES	Community groups <u>do not access</u> unit faculty or students as resources for their work through course-based projects, research, etc.	Community groups <u>rarely access</u> unit faculty or students as resources for their work through course-based projects, research, etc. Professional groups, industry partners and government agencies may form the majority of unit partners.	Community groups <u>occasionally access</u> unit faculty or students as resources for their work through course-based projects, research, etc. Professional groups, industry partners and government agencies are an important source of partnerships, but the range of unit partners is expanding as the unit works to identify and address shared unit and public priorities.	Community groups <u>frequently access unit</u> faculty or students as resources for their work through course-based projects, research, etc. Through coordinated efforts, there is parity among the range of community agencies and groups that access unit resources alongside professional groups, industry partners and government agencies reflecting both shared unit and public priorities.
COMMUNITY PARTNER INCENTIVES & RECOGNITION	The academic department <u>does not provide incentives</u> to community representatives for their involvement in the unit's community engagement activities.	Community partners are <u>rarely provided incentives</u> for their involvement in the unit's community engagement activities (e.g., adjunct faculty status, compensation, continuing education credits, recognition events, etc.).	Community partners are <u>occasionally provided incentives</u> for their involvement in the unit's community engagement activities (e.g., adjunct faculty status, compensation, continuing education credits, formal recognition ceremonies, etc.).	Community partners are <u>consistently provided incentives</u> for their involvement in the unit's community engagement activities (e.g., adjunct faculty status, compensation, continuing education credits, formal recognition ceremonies, etc.).

I-CELR Engaged Department Rubric Convergence/Divergence Table

TEMPLATE

Participants: List group members here.

Directions: Use the tables below to capture notes for each dimension of the rubric. Use the ratings information provided in the Team Workbook to support the team in identifying points of convergence and divergence.

- Before beginning the discussion, review the summary table and the more detailed view of the data in each Dimension Table prior to beginning the discussion.
 - What patterns in the ratings do you note at the dimension level? At the component level?
 - Any “aha” moments and unexpected patterns in responses?
 - Ratings which the group seems to be on the same page but upon further discussion there is divergence?
- Record points of convergence and divergence in the appropriate column. All members can contribute but designate a recorder to make sure everything is captured.
- Use the Notes sections to record additional information pertinent to the discussion for a specific dimension. Your team will return to this information here between now and our next meeting in March.

Table 1. Dimensions 1-3	
Dimension 1:	
<i>Convergence</i>	<i>Divergence</i>
D1: Notes	
Dimension 2:	
<i>Convergence</i>	<i>Divergence</i>
D2: Notes:	
Dimension 3:	
<i>Convergence</i>	<i>Divergence</i>
D3: Notes:	