

# LEEP Engagement on Campus – Five Years In

October 7, 2014

## Introduction – LEEP as Culture Change

LEEP was first ‘named’ in spring of 2009 in the Final Report from the Task Force on Undergraduate Education, *Liberal Education and Effective Practice: A Plan for the 21st Century*. Clark faculty voted to accept this report, and they modified and approved the five learning outcomes that were the foundation of the LEEP initiative. The report included both conceptual guidelines and specific recommendations for changes to the undergraduate experience. LEEP promised to be the first significant transformation in the undergraduate curriculum since the Program of Liberal Studies had been implemented in the 1970s. Because it went beyond curriculum, LEEP would need campus-wide participation of a type that was new to Clark and unusual in higher education. This has been -- and continues to be -- an ambitious undertaking, especially given the unexpectedly turbulent external environment of the past five years and the ongoing national dialogue about the value of higher education.

In retrospect, we did not fully appreciate the culture change that would be required if the concepts were taken to heart and the recommendations fully embraced. Five years later, we are still working to ensure that all constituencies have an understanding of LEEP that is broad and deep; that the underlying concepts and constituent elements are inclusive of different academic disciplines and responsive to diverse student needs; and that the resistance inherent in any significant culture change is constructive and engaging.

Our overall assessment is that engagement in LEEP has accelerated over the last two years, as this report will illustrate. Many pockets of culture change are evident; there are more still to come. We continue to learn from our implementation efforts and to recalibrate our future plans accordingly.

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This report will offer an overview of accomplishments, followed by evidence of engagement by faculty, students, the broader campus community, and professional organizations beyond Clark. We conclude with topics for discussion regarding the work ahead. A select number of attachments illustrate our statements; please note these are by no means all.

## Review of Accomplishments

Guided by the Academic and Financial Plan (2011-2016), the faculty, staff, and administration have:

1. Developed a conceptual framework that includes three elements:
  - a. A set of five learning outcomes that include 'effective practice';
  - b. An integrated learning model that incorporates academics, co- and extra-curricular experiences, world and workplace opportunities, and robust guidance/mentoring;
  - c. The developmental continuum, shorthanded as 'orient, explore, act'.
2. Written and distributed the *LEEP Framing Document, Working Paper #1*, outlining the scholarly literature that underlies the conceptual framework.
3. Convened a conference that brought together national experts on liberal education.
4. Added several distinct elements to the undergraduate experience: a required First Year Intensive course (FYI), the opportunity to participate in a LEEP Project, and access to a LEEP Center Adviser.
5. Involved alumni as LEEP Project sponsors, in an advisory capacity, as donors, and as mentors.
6. Instituted an ongoing curricular change process at the departmental level (learning community model), supported new course development and revisions across divisions, and created professional development opportunities to help faculty and staff integrate curricular and co-curricular experiences designed with developmental pathways in mind.
7. Started and staffed the LEEP Center, where a new advising model is being developed.
8. Garnered several million dollars from national and local foundations as well as individual donors.
9. Created, with Marketing/Communications, various LEEP communications (LEEP Day launch event, websites, Pocket Guide, Pioneer Profiles, Conversation Piece, FAQ).
10. Received invitations to participate in national-level projects organized by the Teagle Foundation, Aspen Institute, and the American Association of Colleges and Universities (AAC&U). Here Clark's curricular reform efforts, particularly its faculty leadership, have inspired other schools.
11. Continually assessed and improved upon LEEP innovations; begun to evaluate student and alumni perceptions of their progress on the LEEP learning outcomes using nationally normed instruments to measure progress.

## Evidence of Engagement: Faculty, Students, Campus, & Beyond

### Faculty/Curriculum

*Faculty have **modified their pedagogy** by developing new courses, revising existing courses, and altering major requirements.*

- From spring 2011 through fall 2014, faculty developed and/or revised nearly 50 courses, funded by the Davis Educational Foundation. The Mellon Foundation and Higgins School of Humanities additionally supported a dozen new courses.
- Beginning in 2012, eight academic departments or programs (computer science, cultural studies and communication, English, management, biology, economics, music, and screen studies) worked on incorporating the LEEP Learning Outcomes in a developmental manner within their majors. (This work is supported by the Arthur Vining Davis Foundation.)
  - See *Department of Biology* and *Music Program* posters [Attachments A & B]
- Beginning in Fall 2014, the faculty teaching FYI's are meeting to discuss, improve, and provide resources and artifacts illustrating how to engage students with the LEEP Curricular Framework.
  - See *Introductory Biology (BIO101)* poster [Attachment C]
- Since spring 2012, faculty have offered over 100 new undergraduate courses. Each new course proposal asks faculty to explain: "How does this course contribute to one or more of *Clark's five LEEP Learning Outcomes*?" Many incorporate the outcomes in their syllabi; several courses include "Effective Practice" in their titles and descriptions.
  - See *New Course Proposals – Graduate and Undergraduate* [Attachment D]

*Faculty governance committees, elected and appointed, have offered **oversight and guidance** in LEEP development.*

- The Undergraduate Academic Board (UAB) defined and described the characteristics of the FYIs; created and evaluated the PLS Cluster pilot; supplied direction on the creation of the LEEP

Center; developed and distributed the departmental LEEP Inventory; considered and rejected recommendations of the Effective Practice Working group, redirecting them to focus on the majors; created a subcommittee to oversee LEEP Center Advising; addressed the role of LEEP Projects in the curriculum.

- The Graduate Board considered LEEP's meaning for masters and PhD education.
- The Planning and Budget Review committee discussed FYI support, LEEP Center costs, LEEP Project funding, the Campaign goals, and LEEP fundraising.
- CETL Steering Committee has supported at least two sessions a year on topics such as pedagogy and assessment results.
- Research Board has taken up the topic of better fostering Communities of Effective Practice built around faculty research, with the goal of building infrastructure and tools to support this labor intensive faculty work.
- The Faculty Admissions Committee devised the criteria for the LEEP Scholarship (a full-tuition award begun in 2013-14), vetted applications, interviewed candidates and revised the process for year two.
- The Information Technology Committee, Library Committee, and Athletic Board have considered the impact of LEEP on their goals and processes.

*Faculty have generated **innovative approaches to LEEP.***

- *LEEP Lectures* were conceived by a faculty member in an effort to encourage cross-disciplinary collaboration and integrative learning. Nine faculty participated by presenting in each other's courses. Disciplines included political science, history, biology, studio arts, economics, art history, sociology, environmental science, and psychology.
- The Graduate School of Geography offered a full day of LEEP-related programming, known as *Practicing Geography*.
  - See *Geography Week* flyer [Attachment E].
- LEEP Projects have been modified in response to research needs of faculty, in particular the need for a sustainable summer science program.
- Faculty requested and were granted seed funding to support disciplinary-based approaches to practice. For examples, the Blackstone Group combined geography/chemistry/GIS/

environmental sciences to study water quality in a local watershed; a political scientist considered a possible travel course to study social movements in Ecuador; an English professor explored the digital humanities; and community-based public health work has begun, involving students in sociology and international development.

*Faculty have been involved in **LEEP assessment**.*

- Using NSSE data, among other sources, the LEEP Compass Advisory Committee reported on student perceptions of their progress on the LEEP learning outcomes. This report was shared with Trustees in spring of 2014 and with the campus at a well-attended lunch hosted by CETL.
- The LEEP curricular exemplar communities are beginning to experiment with innovative assessments of the developmental pathways. Faculty in the eight majors that have participated in the exemplar communities have begun to pilot assessments described in their planning.

*Faculty have gained **deeper understanding and shared their knowledge**.*

- *LEEP Lunches* are designed to deepen faculty understanding of LEEP's intellectual foundations and involve more people in ongoing implementation. The aims are to clarify terminology (what exactly do we mean by LEEPify?), gain insight into purported LEEP fatigue, share knowledge about student perspectives on LEEP, and offer inspiration for the work that remains. Begun in the spring of 2014, 45 faculty have attended thus far and the lunches continue.
- The annual *New Faculty Orientation* program (now extended to part-time faculty) includes an overview of LEEP and a discussion of its origins and progress, supported by several documents with examples and definitions.
- Faculty and staff leaders joined administrators as invited participants in high-profile national gatherings:
  - The Aspen Institute consortium, a two year project, focuses on the need to strengthen business education by linking it more closely to liberal education. Clark's work from the

Management major and LEEP more generally have been presented at a summer conference convened by the Aspen Institute, with over 30 universities attending.

- Clark faculty have participated in a two year AAC&U consortium on faculty leadership for integrative liberal learning funded by the Teagle Foundation, including attendance at a workshop called *New Designs for Integrative Learning: Curricular Pathways, Departments, and the Future of Arts and Sciences*, that discussed better ways to link students' general Education (Program of Liberal Studies in Clark vocabulary) to students' learning in the major.

*Faculty have made what's implicit **explicit**.*

- UAB organized a departmental LEEP inventory, in which departments were surveyed about faculty and co-curricular activities at each developmental phase.
- Faculty funding requests and award nominations increasingly include reference to LEEP.
  - See excerpts from the *Klein Chair Nomination Letters* [Attachment F]

### **Evidence of Engagement: Students**

*Admitted students cite LEEP as part of their **decision to attend Clark**, and acknowledge it if they decided not to enroll.*

- The primary decision factors are the type of education (liberal arts), academic programs available, and financial aid, but LEEP was a factor to the class that entered in fall of 2014.
  - 27% of those who enrolled said LEEP influenced them a great deal
  - 32% of those who did not attend said LEEP influenced them to apply
- Interviews of non-enrolled students showed that more than a few understood the underlying educational concept of LEEP, but many confused the LEEP Scholarship with LEEP.

*Current students are **spokespersons** for LEEP.* Various student leadership groups attended presentations on the underlying concepts, including resident assistants (RAs), peer advisors, peer learning assistants, and Student Council. Others receive more in-depth training and experience. Each year:

- 76 work as Admissions Ambassadors and explain LEEP daily on their tours
- 26 or so work in UA on the phone bank, with LEEP in their conversational “script”
- 16 assist in the LEEP Center, directing visitors and answering basic LEEP questions

*Increasing numbers of students explore and take advantage of **LEEP Projects** and **LEEP Fellows** (formerly **Pioneers**) support/training.*

- Student interest in LEEP Projects increased over 50% last year, with 179 students in 2014 who expressed initial interest versus 117 in 2013.
- Nearly 250 students have been LEEP Fellows (2014) or Pioneers (2012 & 2013)

*Students increasingly grasp the **LEEP conceptual framework**.*

- Among the seven sessions offered at the LEEP Fellows boot camp, the session on “LEEP” was ranked the second most helpful (following the session on “Telling Your Story”), with 83% concurring.

*Students consult with the offices of the **LEEP Center**, seeking out advice, guidance, and opportunities.*

- In 2013-14, LEEP Center advising was described as “required” for first-year students. Over 50 small group meetings were scheduled by the advisers during the course of the year. These meetings resulted in meetings with 62% first-year students in the first semester, and 21% in the second semester.
- In 2014-15, LEEP Center advising is “expected” of both first-year and sophomore advisees. Advisers were able to meet with their first-year advisees at orientation, and may have opportunities to further connect with them through their FYI classes. Sophomore advisees

have been reminded that we continue to be a resource, and have been encouraged to check in before the end of the semester.

- General advising was the second most cited reason for visiting the LEEP Center (following study abroad).

*Students enrolled in a **course called the LEEP Lab** that has informed Clark's assessment work.*

- Offered three semesters by faculty in psychology and sociology
- Three groups, about 25 students, presented this work at Academic Spree Day and Fall Fest.

*Students participate on campus **committees** that address LEEP.*

- This includes UAB and Admissions, as well as Trustee committees.

***Student workers** have been deeply involved in LEEP implementation and grant work:*

- Student workers have been involved with LEEP workshop planning, and assessment data processing and analysis. One student filmed documentary material related to the LEEP curricular work.

Evidence of Engagement: Broader Clark Community

*New **terminology** has organically evolved: LEEPpy, LEEPish, LEEP-like, LEEPesque.*

- Simply listen – you'll hear it!

*New **employee orientation** includes an overview of LEEP.*

***Student employment** is being "LEEPified."*

- Campus employment offers practical and developmentally impactful work experiences to a number of students, allowing them to experience the "world and workplace" aspects of the LEEP Learning Model and giving them another opportunity to explore effective practice.



- Given that only 50 % of our incoming students have prior work experience, these jobs become a significant aspect of their education.
- Over the past two years we have been working to “professionalize” student employment by adding job descriptions, performance reviews, opportunities for initiative and advancement, and more challenge.
  - Several departments (Academic Affairs, LEEP Center, community-based work study) have participated in this project, and others (Athletics, the science library) will be joining over the year to come.

*Staff in the LEEP Center continue their outreach to students through workshops, presentations, and collaborations with departments across campus.*

- The number of information sessions requested by faculty, departments, and student groups has increased over 50% from last year.
- Ongoing/future collaborations include:
  - Participation in the exemplar groups with faculty on curricular redesign
  - Course development with the Education Department
  - Creation of a pilot program for sophomore athletes; service as mentors to several teams
  - Creation of a *Senior Transitions* boot camp with Student Affairs
  - Ongoing co-programming with Residence Life and Housing
  - Participation on the LEEP Compass Committee (along with several other staff from around campus)
  - LEEP Scholar mentors received alumni mentors

*LEEP Projects have **mentors** from numerous departments:*

- Full-time, part-time and visiting faculty, Clark professional staff from ITS, Sustainability, Marketing/Communications, LEEP Center, IR, Athletics, Government Affairs, University Advancement, Admissions, HGS, GSOM, Student Affairs, and the Business Office.

## Evidence of Engagement: Beyond Clark

*As we seek to deepen our implementation of LEEP and inspire continued cultural change, it's imperative that staff, administrators, and faculty connect with peers in the academy and beyond.*

- Staff, administrators, and faculty have been encouraged and increasingly been selected to present their work at scholarly and professional conferences; have been invited to contribute chapters and articles; and asked to lead workshops on topics related to LEEP.
  - Such national attention provides validation to our internal sense of progress and success
- In such outreach, we both learn from peers and contribute to the ongoing discussions about liberal education.
  - Conference presentations and publications provide national visibility as well as opportunities for further resource development.
  - See *Engagement Beyond Campus* [Attachment G]

## Work Still Ahead of Us -- For Discussion

1. Pace of change
2. Faculty ownership/ staff responsibilities
3. Student discomfort
4. Academic calendar limitations
5. Measurement of progress
6. Definitions of success
7. Goals for 14/15
  - a. Launch and readiness
  - b. Year of Advising
  - c. Value proposition

The Department of Biology consists of 11 faculty (10 tenure-track), ca. 15 PhD students, and 15 MS students in any year. We are organized into research groups that function as Communities of Effective Practice. Much of our research takes place over the summer on campus.

**Biology Communities of Effective Practice**

Each of our research groups comprises a community of effective practice, nested within a larger collaborative community within the Department.

Interactions among the laboratory-based CEPs are especially effective because graduate and undergraduate students share ideas and methods, enhancing connectivity within the department. Some CEPs also have forged significant connections among departments and to the community.

**Research Topics Explored by these Communities include:**

- Algal Physiological Ecology
- Anti-Cancer Drugs
- Developmental Neurobiology
- Environmental Microbiology
- Epigenetics in Social Insects
- Genomics of fungi
- Herpetology & Biomechanics
- Fungal Tree of Life
- Invasive Mosquitoes
- Stream Conservation
- Stickleback Adaptive Radiation

**LEEP Learning Outcome 2. Intellectual and Practical Skills**

Key intellectual skills for biologists include reading, comprehending and discussion of primary research literature, formulating hypotheses and designing empirical approaches to evaluating them, analysis and interpretation of data, and writing summaries of research projects. Practical skills incorporate a wide variety of technical methods, with the common elements of writing, graphic and oral presentation of data.

<b>Orientation Phase</b>	<b>Exploration Phase</b>	<b>Implementation/ Enactment Phase</b>
<ul style="list-style-type: none"> <li>• Explore the varied scientific disciplines</li> <li>• Understand the nature of the scientific process of formulating and addressing questions</li> <li>• understand the importance of collaborative work, and the value of using diverse approaches to attack a single problem</li> <li>• Read and discuss scientific papers, to see the scientific method in action</li> <li>• Interact with students and scientists at all levels (graduate students, faculty, visiting speakers)</li> <li>• Relate studies to real-world phenomena</li> </ul>	<ul style="list-style-type: none"> <li>• Work in groups to solve problems (POGIL)</li> <li>• Conduct a short empirical research project</li> <li>• Summarize a sample graphically</li> <li>• Interpret graphs</li> <li>• Perform statistical tests</li> <li>• Find relevant literature</li> <li>• Present results orally and in writing</li> <li>• Present poster to peers and professors</li> <li>• Design and complete short class-based research project</li> <li>• Conduct biological research as part of a field program</li> <li>• Conduct field research relevant to community needs</li> <li>• Engage in internship</li> </ul>	<ul style="list-style-type: none"> <li>• Work with laboratory or class research group on long-term research project</li> <li>• Participate in analysis and interpretation of data</li> <li>• Complete literature search relevant to research</li> <li>• Participate in collaborative writing of a manuscript for publication</li> <li>• Present research poster at Academic Spree Day or at a regional, national or international meeting</li> <li>• Design web page summarizing research results</li> <li>• Work with a group to write a chapter in textbook format</li> <li>• Present visual display of research or system</li> </ul>
<b>Student Behaviors</b>		
<b>High Impact Experiences</b>		

**LEEP Learning Outcome 5. Capacities of Effective Practice**

Effective practice, for academic biologists, includes conducting original research and presenting the results in written or oral form, transmitting basic principles to students and promoting further inquiry within the discipline. For non-academic biologists, effective practice may entail generating or interpreting data needed to formulate policy, designing experiments for clinical trials, devising medical procedures, diagnosing health disorders, or designing pharmaceuticals, to name only a few of many possibilities.

<b>Orientation Phase</b>	<b>Exploration Phase</b>	<b>Implementation/ Enactment Phase</b>
<ul style="list-style-type: none"> <li>• Understand the value of interactive, cooperative research by reading selected published papers</li> <li>• Appreciate the connection between science and real-world issues by exploring the links</li> <li>• Engage with students who are already working in faculty laboratories</li> <li>• Participate in focus groups that delve deeply into specific topics</li> </ul>	<ul style="list-style-type: none"> <li>• Work well with others with different levels of expertise</li> <li>• Ask questions when I am not sure how to solve a problem</li> <li>• Problem solve with others to conduct effective research</li> <li>• Evaluate my research with an interdisciplinary perspective</li> <li>• Convey my knowledge to those outside of biology</li> <li>• Peer review of class work</li> <li>• Classroom interactions in which research is designed</li> <li>• Group discussion of complex published papers</li> <li>• Projects that include scientists and non-scientists</li> <li>• Meetings with stakeholders about applications of ideas</li> <li>• Internships</li> </ul>	<ul style="list-style-type: none"> <li>• Teach those who have lesser expertise than my own</li> <li>• Work out the answers to many questions but I know when it is appropriate to ask those with more knowledge than I have</li> <li>• Design research and problem solve when the first design does not work</li> <li>• Present my research in ways that will interest those with different perspectives</li> <li>• Presentations to younger students and lay audience</li> <li>• PLA experience</li> <li>• Mentoring of earlier stage students in the laboratory</li> <li>• Reports for conservation and other agencies</li> <li>• Completing and publishing a manuscript with others</li> <li>• Reviewing and editing manuscripts for a Clark Biology Journal</li> <li>• Collaborative writing of a textbook chapter</li> </ul>
<b>Student Behaviors</b>		
<b>High Impact Experiences</b>		

- Next Steps**
1. Develop a rubric-based system for uniform assessment of key projects within a portfolio storage and access system, coordinated with a data base for efficient assessment analysis .
  2. Develop the SURE (Summer Undergraduate Research Experience) program to further enhance connections within the Department and ultimately, among departments.







The Department of Visual and Performing Arts includes five distinct undergraduate programs that engage in the research, theory, and practice of the creative arts. Each program offers its own major while sharing some facilities, resources, collaborative events, courses and faculty with other programs and departments. This creates an environment where students may collaborate and work across disciplines. Many choose to double-major between the arts and humanities or sciences. The five V&PA programs are Art History, Studio Art, Music, Theatre, and Screen Studies.

**Communities of Effective Practice**

Performing ensembles/private instruction – activities include weekly rehearsals/lessons, workshops & juries and student recitals, concerts and tours

Recording Studio – a hub of activity in music technology including course work, independent student projects, visiting lectures and concerts.

Concert Series – more than 25 programs each year, including professional ensembles and soloists, a faculty recital series, the biannual Trains Chamber Music Residency and the new Geller Jazz Concert Series.

Creative InterMedia courses – edgy, exploratory, collaborative courses offered to juniors and seniors in all five V&PA areas

LEEP Learning Community #1  
The Major  
Revised February 2014

**Music Program**  
Matt Malsky, program director

**Intellectual and Practical Skills**

Music Program Outcome:

- 3. Students gain grounding in the technical/theoretical language of Western music, and achieve a heightened understanding and appreciation for its formal and structural dimensions across, as well as within genres, styles, and historical periods.

**Orientation Phase**

From the very start of the curriculum, students learn by combining theoretical knowledge and practice in the Music theory involves the study of concepts tested through written drills and short compositional exercises. But equally important is "music in practice," or how these concepts sound and work in music that is meaningful to students.

**High Impact Experiences**

MUSIC 121 (Principles of Tonal Analysis), one of three "Core" required courses for all music majors and minors, addresses the learning outcome most directly. It introduces these concepts, and serves as a pre-requisite experience for the exploration level and higher.

MUSIC 100 (Private Instruction in Instrument & Voice) Many students elect to take private lessons.

**Assessment & Evaluation**

(applies to both choral)

**Capacities of Effective Practice — Collaboration**

Music Program Outcomes:

- 11. Effective learning involves participation in a network with others who act as resources in different ways. Students should cultivate the capacity to apply knowledge of music with agility and creativity to contexts requiring the participation of multiple collaborators with specialized skills and knowledge. Through these experiences students should test, stretch and share their learning. (This is most commonly accomplished through participation in a "workshop" course.)
- 12. Students will achieve the ability to plan, organize, complete and present an independent research or creative capstone project that integrates scholarly, creative, and/or performance skills. Especially valued in these experiences are engage creativity and imagination, self-directedness, resilience and persistence. These projects should demonstrate the ability to collaborate across differences and manage complexity.

**Orientation Phase**

At the level of "core" courses, students are expected to participate fully in activities presented by course instructors. At this level of development, students are not expected to have identified and developed specialized interests and skills (e.g., composition, historical research, performance or music technology), but to work both individually and within their peer group to master the foundational skills required for work in music.

Collaboration at this level consists of group projects and presentations.

**Student Behaviors**

**High Impact Experiences**

All music majors and minors are required to take – as early as possible – a trio of "Core" courses, one in each area of concentration: music history & criticism; and music composition; music theory & analysis; and music technology. Additional, the music theory course has a co-requisite lab that introduces the fourth area of study, applied musicianship skills. Together, the goal of these core experiences is to develop the knowledge base and the methodological tool-kit needed for more advanced coursework in music history.

**Next Steps:**

Continue discussions to transform Creative InterMedia from a loosely aligned set of courses to a formal concentration area for V&PA majors.

**Implementation/ Enactment Phase**

At this level, students are able to define their own research agenda, by selecting words for analysis and being to bear all the load they've created. Furthermore, students should be able to apply the understanding to their own creative projects. Students should be able to integrate their theoretical understanding of music with their other interests – historical research, performance and creative work.

At the capstone level, workshop and seminar courses provide supportive environment for students to extend their expertise and design and complete their own research and creative projects.

MUSIC 220 (Composition Seminar) features rotating topics in music composition, musical analysis, orchestration and contemporary performance practice.

MUSIC 210 (Seminar in Music History and Criticism) takes up specific topics and themes in music history that open into larger cultural contexts and interdisciplinary lines of inquiry.

A media-rich electronic summative portfolio is required of every graduating music major. Priced with each artifact in the portfolio is a short written reflective statement, through which the student should address how this work has partially fulfilled the music major learning outcomes. The portfolio is presented to a panel of faculty and peers at an end-of-year portfolio symposium. Juniors make a preliminary presentation, and graduating seniors present their full portfolio, which is the culmination of a year-long process of work and reflection.



WEDNESDAY  
MARCH 26  
TRAINS CENTER FOR THE ARTS  
CLARK UNIVERSITY





# Introductory Biology (BIO 101) and Environmental & Conservation Biology (BIO 103) Fall 2014

Elizabeth Bone  
Biology Department



**Orienting to College**  
\*Brainstorming about topics critical to college success, such as time management, study skills, and expectations.  
\*Helping students begin to make a home at Clark, in their fields of study, and in Worcester.



Each student in the Bio 101/103 FYI chooses a science or nature themed place in Worcester to visit – and in the process they get to know Worcester better.

**Introductory Biology and Environmental & Conservation Biology** each fulfill the SP requirement. The classes are designed to provide a foundation in biology and environmental conservation to prepare students for upper level courses in biology. The courses are a combination of content-packed lectures, hands-on lab experiences, and an FYI discussion that uses the topics in these courses as models to practice successful college strategies.

**LEEP Learning Outcome: (FILL IN OUTCOME SET NUMBER & SPECIFIC CAPACITY)**

ORIENT	EXPLORE	ACT
STUDENT BEHAVIORS		

**FOUNDATIONAL/ HIGH IMPACT EXPERIENCES**

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**LEEP Learning Outcome: (FILL IN OUTCOME SET NUMBER & SPECIFIC CAPACITY)**

ORIENT	EXPLORE	ACT
STUDENT BEHAVIORS		

**FOUNDATIONAL/ HIGH IMPACT EXPERIENCES**

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**Biology 101/ 103 is a Learning Community** because:

- The classes provide opportunities to develop academic relationships in lab and discussion sections with students who share common academic interests and goals.
- Students explore concepts such as natural selection and DNA technologies through readings and discussion.
- Students collaborate to create and test hypotheses.
- Peer review is an essential part of the writing process in this class.
- Scientific research and ideas are shared through writing, dialogue, presentations, and debate.



Biology lab students practice the scientific method, learn important research techniques, collaborate to test hypotheses, and write their results in the form of peer reviewed scientific articles.







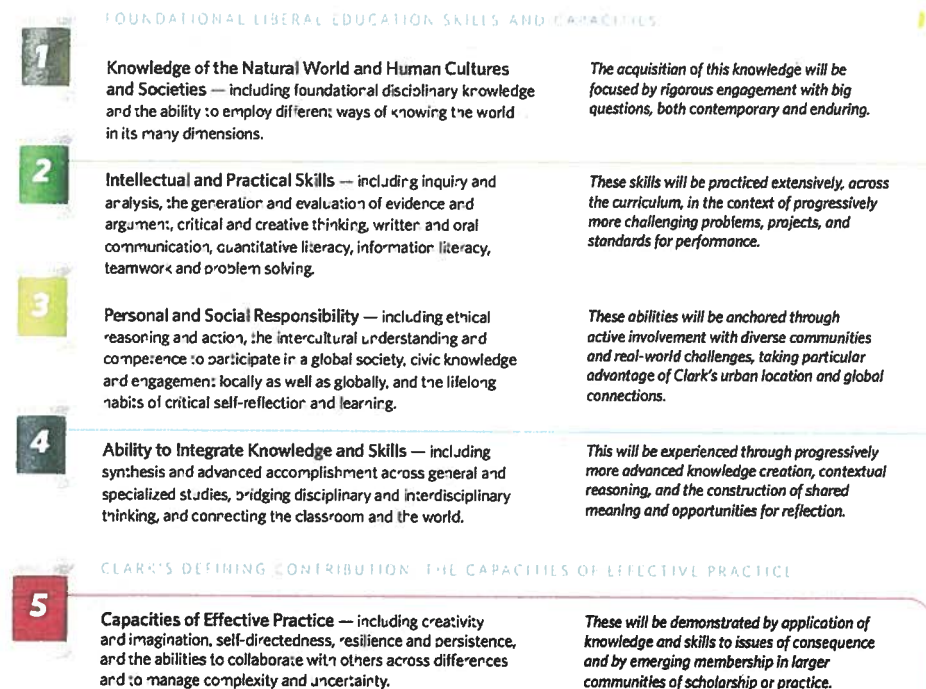
1. How does this course contribute to one or more of [Clark's five LEEP Learning Outcomes?](#)

This course supports LEEP Learning Outcomes 2 (writing development) and 5 (writing for a public audience, and developing effective practices and strategies for making one's thinking public). The following description of LEEP Learning Outcomes appears in the syllabus:

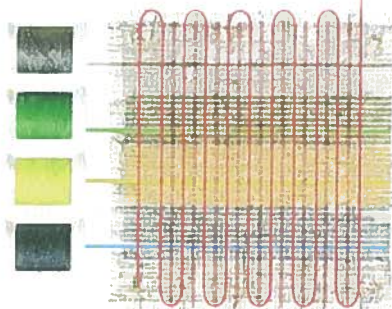
This class has two important designations: "LEEP – Liberal Education and Effective Practice" and "Difficult Dialogues." What do these designations mean and where will these descriptors be evident? We will be focusing on two of the principles of Clark's new **LEEP initiative** by exploring writing (Learning Outcome 2) and effective practice (Learning Outcome 5), reading and writing academic texts in our class sessions and discussions groups and grappling with the real world issues of what counts as effective written communication in making our thinking public and available to others. We will be exploring the core principles of what we often talk about as "capacities of effective practice" – including creativity, collaboration, self-directed learning, and adaptive expertise in writing. (see #5, the red thread).

We will work hard to reflect on the relationships among theory and practice, in writing and discussion, to see where the theories fit or don't fit with our experience in the world, as we work to make our writing public, and build toward capstone work in the major.

Clark's innovative and developmental approach to liberal education combines the essential learning outcomes developed by the Association of American Colleges and Universities ([http://www.aacu.org/leap/documents/EssentialOutcomes\\_Chart.pdf](http://www.aacu.org/leap/documents/EssentialOutcomes_Chart.pdf)) with a new learning outcome uniquely focused on effective practice.



Clark believes that students need extensive opportunities to connect their learning within and across many contexts, including their major, Clark's general education requirements known as the Program of Liberal Studies, as well as research, internships and cocurricular experiences. But Clark's distinctive addition is a new educational goal informed by learning science research and aimed at better preparing students for their lives beyond college: capacities of effective practice (Budwig, 2011a). In addition to a strong liberal education, Clark students will graduate with the ability to engage effectively on issues of consequence, bringing creativity and imagination, resilience and persistence, and the ability to constructively collaborate with others in the face of complexity and uncertainty. Over their time at Clark, undergraduate students will weave together a program of curricular and cocurricular experiences that inculcate the five learning outcomes of a Clark degree.





# APRIL 14th-20th

# PRACTICING GEOGRAPHY 2014

Please join us for the Third Annual Peter Condaques

## PRACTICING GEOGRAPHY WEEK

Practicing Geography week is a week of career-focused events for our undergraduate students. Co-sponsored by The Graduate School of Geography (GSG) and the Clark Undergraduate Geography Association (CUGA).

Practicing Geography week was developed to give our students in **Geography, Global Environmental Studies, and Earth System Science** a chance to explore various career and graduate school options in preparation for what lies ahead after undergraduate life at Clark. It also provides various opportunities to network with faculty, graduate students, and alumni from our programs.

### MONDAY APRIL 14

#### DROP-IN INFO SESSION

Chat with current undergraduate students to learn about all of the options offered in the Geography, Global Environmental Studies, and Earth System Science programs!

Lurie Conference Room

12:00 — 2:00 PM

#### TRIVIA NIGHT

Join us for some Geography trivia! Free wings, pizza, and prizes.

Jefferson 218

8:00 — 10:00 PM

### TUESDAY, APRIL 15

#### MAP LIBRARY TOUR

Did you know Clark has a map library? Tour this unique place with Emily Glaubitz.

MAP LIBRARY (Geography Building Basement)

1:30 — 2:30 PM

#### MAIN SOUTH TREASURE HUNT

Learn about our local community while searching for treasure! Prize Available.

MEET IN RED SQUARE

5:00 PM — 7:00 PM

### THURSDAY, APRIL 17

## PRACTICING GEOGRAPHY TALK

Third Annual Practicing Geography lecture

featuring Clark alum

**SUSAN SHARP (BA '08)**

Winton Dining Hall

6:00 — 7:30 PM

### WEDNESDAY, APRIL 16

#### DEPARTMENTAL UNDERGRADUATE AWARDS & HONORS CEREMONY

Awards and GTU (Gamma Theta Upsilon) Ceremony

Lurie Conference Room

3:00 — 4:00 PM

#### THE PETER CONDAQUES PANEL ON WORK

We have put together a panel of students from the MA/GIS, GISDE, CDP (IDCE) and Ph. D. programs, as well as select faculty, for an informational Q&A session.

Featured Panelists:

Juan Luis Dammarl Bello, Shannon Palmer, Ryan Williams, Professor Mark Davidson, and GSG Director Tony Bebbington.

Grace Conference Room

4:00 — 6:00 PM

### FRIDAY, APRIL 18 — SUNDAY, APRIL 20

## FIELD TRIP TO NEW YORK CITY

Leave Clark Friday at 7:45 AM  
Return Sunday around 5:30 PM.

Email Professor Mark Davidson for more details

MDavidson@clarku.edu



For more information, contact CUGA President Michelle Andrews, MAndrews@clarku.edu



Klein Chair Nomination Letters  
September 2014

1. ... For decades, [professor's] approach has epitomized the spirit of Clark and of LEEP, as evidenced by the manner in which [professor's] scholarship has genuinely changed the world and transformed students.
2. ... This is LEEP at its best. Actually, [professor] has been doing the kind of work we're promoting in LEEP for over fifteen years.
3. ... These projects will bring more research funding to Clark, support the education of many students with LEEP ready projects, and follow the motto of Challenging Convention and Changing the World.
4. ... in the development of key campus-wide initiatives including LEEP.... This is exactly the kind of "learning by doing" that LEEP represents, and was an example of [professor] showing concrete commitment to the LEEP ideal.
5. ... is a redesigned LEEP type course. Each student does a research project designed by himself/herself under my guidance



**ENGAGEMENT BEYOND CAMPUS**  
**October 2014**

**Consortium or Competitive Program Participation and Presentation**

Aspen Institute 2014-2016: Nancy Budwig (Academic Administration) & Priscilla Elsass (GSOM) are participating in a consortium convened by Aspen Institute with 30 other research universities with the aim to strengthen the connection between business education and liberal learning. The Clark team presented at the June 2014 meeting.

Elon University Seminar for Engaged Scholarship 2014-2016: Michelle Bata (Associate Dean and Director, LEEP Center) was selected to be one of 38 participants in a three-year, fully-funded seminar on faculty mentoring sponsored by Elon University. Her research group – with colleagues from the College of Wooster, Elon University, Penn State, and UT-Austin – is conducting research on mentoring networks to assess the effects of faculty mentorship on student outcomes. Michelle will focus specifically on mentoring of LEEP Projects.

National Academic Advising Association (NACADA) Summer Institute 2014: Jen Plante (Director of the Writing Center, LEEP Center) participated in a week-long summer advising institute working alongside faculty and administrators from other universities. Her project at the institute was to develop a plan to communicate LEEP Center advising goals and programming to Clark faculty.

Association of American Colleges and Universities Consortium on Faculty Leadership for Integrative Liberal Learning 2012-2014: Clark team members Nancy Budwig, Sarah Michaels, Michael Butler (AY 2013) and Lisa Kasmer (AY 2014) joined faculty from 16 other colleges for quarterly meetings organized by the AAC&U, presenting and discussing Clark faculty's LEEP curricular reform efforts at venues including Babson College, March 2014; Washington, DC, January 2014; Providence RI, October 2013; Portland State University, Oregon, July 2013; Wheaton College, February 2013, and at Clark University where the inaugural meeting took place in October 2012.

**National and regional presentations and invited participation related to LEEP**

Michelle Bata (June 2014). Conference presentation: Using undergraduate research as a model for other high-impact practices, Council on Undergraduate Research (CUR) annual meeting, Washington, D.C.

Adriane van Gils-Pierce (May 2014). Conference presentation: Restructuring the study abroad office, National Association of International Educators (NAFSA), San Diego, CA.

Vickie Cox-Lanyon (May 2014). Conference presentation: Transitioning to a holistic advising model, Small College Career Alliance (SCCA) annual meeting, Amherst, MA.

Adriane van Gils-Pierce (April 2014). Invited panel presentation: Restructuring the study abroad office, Forum on Education Abroad (FORUM) annual meeting, San Diego, CA.

Kevin McKenna and Michelle Bata (March 2014). Conference presentation: LEEP: Transition from a faculty-centered advising model to an integrated one, National Academic Advising Association (NACADA) Region 1 conference, Newport, RI.

Mary-Ellen Boyle (January 2014). Invited panel participation: Reanimating liberal studies through intentional and innovative experiential learning, ACAD Pre-Conference Workshop at AAC&U, Washington, D.C.

Nancy Budwig (December 2013). Invited panel organization and presentation (with Donna Heiland): Implementing and measuring innovative learning outcomes, NEASC Conference, Boston, MA.

Nancy Budwig (April 2013). Invited participant: Faculty work and student learning: A convening by the Teagle Foundation, New York City, NY.

Nancy Budwig and Priscilla Elsass (February 2013). Poster presentation and discussion session: Guided emergence: A process for weaving learning outcomes into the undergraduate academic experience, AAC&U General Education and Assessment Conference, Boston, MA.

Nancy Budwig (January 2012). Curricular reform: A learning science framework. Invited plenary address: Trinity University Curricular Reform Ideas Lab, San Antonio, Texas.

Nancy Budwig (December 2011). Invited panelist: Liberal Education and Effective Practice-Creativity, adaptive expertise, collaboration and capacities of enactment. Session title: Measuring and supporting creativity in students, NEASC Meeting, Boston, MA.

#### **Awards, Scholarships and Fellowships**

NACADA (National Academic Advising Association, 2014): Excellence in advising award (Region 1):

- Michelle Bata, Associate Dean & Director of the LEEP Center
- Jennifer Plante, Director of the Writing Center and Writing Program, LEEP Center

Michelle Bata and Denise Darrigrand (2014): Bringing Theory to Practice grant (AAC&U sponsored funding): *Improving retention by strengthening the personal and emotional well-being of Clark students through community-based learning and reflection.*

#### **Articles and book chapters related to the LEEP**

Bata, M. & Whitney, A. (forthcoming, 2015). Using inquiry-based learning outside of the classroom: How opportunities for effective practice can animate course-based learning. In P. Blessinger and J.M. Carfora (Eds.), *Inquiry-Based Learning for Multidisciplinary Programs: A Conceptual and Practical Resource for Educators*. London: Emerald Press.

Budwig, N., Michaels, S., & Kasmer, L. (2014, in press). Facilitating campus leadership for integrative liberal learning: New forms of networked learning communities and tools for professional development. *Peer Review*.

Budwig, N. (2013). The learning sciences and liberal education. *Change: The magazine of higher learning*, 45 (3), 40-48.