CLR as a Focal Point for Campus Engagement

@ Johns Hopkins University
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@ Johns Hopkins University

Monday, April 19, 2021 | 11:30 AM to 12:30 PM ET

PRESENTERS

Janet Schreck
Associate Vice Provost for Education
Johns Hopkins University

Chadia Abras
Director of Institutional Assessment
Johns Hopkins University

Rita D’Aoust
Associate Dean for Teaching and Learning
School of Nursing
Johns Hopkins University

Paul Huckett
Assistant Dean, Learning Design and Innovation
Whiting School of Engineering
Johns Hopkins University
Session Objectives

• Identify a comprehensive CLR visioning and implementation process for your organization that involves all stakeholders

• Understand how organizational culture can be leveraged to solicit buy-in

• Assess how the CLR can shift understanding of how higher education envisions education delivery, learning assessment, and valuation of education
1. Context for the Johns Hopkins University CLR vision (30,000 foot view)
2. JHU CLR implementation project (descending to 10,000 feet)
3. Experiences from two JHU schools/divisions (boots on the ground)
   • Whiting School of Engineering
   • School of Nursing
4. Discussion and Q & A
Context for the Johns Hopkins CLR Vision
Johns Hopkins University: "America's First Research University"

- Private R1
- Highly Decentralized
- Geographically Dispersed
- 9 Schools
- ≈ 6,000 UG; 20,000 Grad
- ≥ 260 courses of study
Higher Education Landscape

Disruptive Forces

- Cost of higher education and value demands
- Change in consumer demand and expectations
  - Students
  - Parents
  - Employers
- Ubiquitous nature of information
- Technology
- Changing nature of jobs and career paths
Confluence of JHU Initiatives

- Second Commission on Undergraduate Education (CUE2)
  - Foundational Abilities
  - Depth and Breadth (re-examine majors; Hopkins Semester)
  - Meaningful Incorporation of Co- and Extra-curricular Learning
  - Re-envisioned advising and mentoring
- Procurement of Student AEFIS
- Student Services Excellence Initiative (SSEI)
  - "One University" experience for students
  - 360° view of student
- Emergence of Lifelong Learning approach
  - Stackable credentials
  - Credit for prior learning
Lifelong Learning @ JHU
CLR Challenges that are Opportunities

- Creating a culture of assessment
- Building assessment structures for co-curriculars, extra-curriculars
- Managing the ecosystem of software tools and determining systems of record
- Establishing shared guardrails for badging and other alternate credentials without hampering innovation
Purposeful Planning & Implementation

Shared University Vision for CLR (bottom-up approach)

- Provost's office
- University Council on Learning Assessment & AEFIS Taskforce
- Lifelong learning & Continuing/Exec Ed
- Vice Dean's for Education
- Registrars
- Advising

Establishing Guardrails (work in progress using AEFIS project)

- Minimum standards for assessment of experiential learning, co- and extra-curricular learning
- Minimum standards for credit for prior learning
- What goes in the "endorsed" achievements bucket and how are they vetted?
- What about badges?
Blueprint for JHU CLR

1. Develop Competency Focused Learning Outcomes
2. Design & Develop Programs
3. Develop & Align Assessment Plan
4. Collect All Achievements into CLR
CLR Implementation Goals

Goal 1
• Engage all JHU Communities

Goal 2
• Create a Culture of Improvement

Goal 3
• Apply CLR Value Chain to Lifelong Learning

Goal 4
• Create Processes from Best Practices

Goal 5
• Engage Students in co-curricular and curricular records
Stakeholders Involvement

AEFIS Onboarding/Implementation Leadership
Janet Schreck, Chadia Abras, University Council for Learning Assessment

AEFIS Steering Committee
- Provost Office
- Registrar
- CER
- Institutional Research
- Central IT
- Student Services
- Representative from Each Division
- Student Representation

AEFIS Task Force
In Addition to Steering Committee, Each Division added:
- Instructional Designers
- Instructional Technologists
- Faculty
- Program Coordinators

AEFIS Work Groups
- Instructional Designers
- Instructional Technologists
- Faculty
- Program Coordinator
- Program Directors
- Program Leads
- Students (Advisory Group)
Implementation Projects @ JHU

- Academic Programs
- Non-Credit Pilot
- Experiential Learning & Student Affairs
- PhD Programs
Engaged Divisions@ JHU

- Academic Programs
- Experiential Learning
- Provost Office / Leadership
- Life Design
- Student Affairs
- Advising Groups
### Implementation Projects Timeline

#### Academic Programs
- **Timeframe:** June 2020 - July 2023
- Division-specific implementation plans

#### Non-Credit Pilot
- **Timeframe:** February 2021 – July 2022
- Carey Business School, AAP, WSE & SON Exec Ed, SOE Continuing Education

#### Expl Learning & Student Affairs
- **Timeframe:** June 2020 – July 2023
- Organizational structures created in AEFIS
- Determining learning outcomes & activities
JHU School of Nursing
Johns Hopkins School of Nursing

COMPLETE LEARNER RECORD

Academic Programs - 5
- MS Entry
- MS Specialty
- DNP: 12 tracks including NP, CNS, NA, Leadership, and Dual Degrees
- PhD: 4 tracks
- PM Certificate: 3

Executive Education - 19
- Aging
- Clinical practice
- Education
- Humanitarian relief
- HIV/AIDS
- IPE
- Parenting

Co-Curricular Activities
- Heart Walk
- United Way

Academic Activities
- Research Honors
- SIGs: i.e., Palliative Care, B-More
- TA
- RA
- Tutoring

Lifelong/Informal Learning (MOOCs)
- PrEP
- Living with Dementia
- SBIRT
- Preceptor Training
Change: Timing and Culture
Culture of Collaboration
Competency: Content vs. Outcomes

I taught Stripe how to whistle.
I don't hear him whistling.
I said I taught him. I didn't say he learned it.
Sustained Effort

"It's not going to throw itself."

C. Burrell
JHU Comprehensive Learner Record

- OUTCOMES
  - SKILLS & COMPETENCIES
- COURSES, FACE-TO-FACE, REMOTE & ONLINE
- RUBRICS, ASSIGNMENTS, ARTIFACTS, EXAMS
- CO-CURRICULAR EXPERIENCES
- BADGES, CERTIFICATES, DEGREES, LICENSURE
- EXPERIENTIAL LEARNING
- PRIOR LEARNING & LIFE CREDITS
- SELF ISSUED ACHIEVEMENTS & PORTFOLIO
Outcome assessment (PLO, Accreditation): proficiency level for single term or longitudinal by outcome
<table>
<thead>
<tr>
<th>PLO &amp; PI Id</th>
<th>Program Level Learning Outcome</th>
<th>Total Obs.</th>
<th>Cumulative Percent Distribution of Student Performance Levels</th>
<th>% at Mastery</th>
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</thead>
<tbody>
<tr>
<td>ABET-1</td>
<td>An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics</td>
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<td>ABET-2</td>
<td>An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare; as well as global, cultural, social, environmental, and economic factors</td>
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<td>ABET-3</td>
<td>An ability to communicate effectively with a range of audiences</td>
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<td>ABET-6</td>
<td>An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions</td>
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<td>ABET-7</td>
<td>An ability to acquire and apply new knowledge as needed, using appropriate learning strategies</td>
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<td>Initiative</td>
<td>Students will motivate and influence others; act as a catalyst; demonstrate self-awareness, and learn from experience</td>
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<tr>
<td>Problem</td>
<td>Students will exercise both divergent and convergent thinking; identify patterns; manage ambiguity; and apply an</td>
<td>70</td>
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Nursing Pilot: Pathway to Micro Credentials

Choose
Validate
Collect
Upload
Share
JHU Whiting School of Engineering
Johns Hopkins Whiting School of Engineering

20+ Degree Programs
• UNDERGRADUATE PROGRAMS
• FULL-TIME GRADUATE PROGRAMS
• PART-TIME AND ONLINE GRADUATE PROGRAMS

5+ Lifelong Learning Programs
• MOOCS
• EXECUTIVE EDUCATION
• BOOTCAMPs
• ONLINE COURSES
• WORKSHOPS
Our Strategic Plan

- Workshops
- Exec Education
- Single courses
- MOOCs
- Post-Bacc Certificates
- Bachelors Degrees
- Small-c certificates
- Masters Degrees (online, residential, international)
- Post-Masters Certificates
- Stackable Credentials
- PhD
- Deng Degree
With the right strategic and tactical planning, we have a solid foundation to help build CLRs
Hi [faculty],

On top of your teaching and research load, we need you to think about how your learning outcomes align with competencies.
Blueprint for JHU CLR

1. Develop Competency Focused Learning Outcomes
2. Design & Develop Programs
3. Develop & Align Assessment Plan
4. Collect All Achievements into CLR
<table>
<thead>
<tr>
<th>Module #</th>
<th>Module Title</th>
<th>Module Overview</th>
<th>Module Learning Objectives</th>
<th>Teaching Strategies</th>
<th>Learning Activities and Assessments</th>
<th>Module Resources</th>
</tr>
</thead>
</table>
| 1       | How Pluto Mission Advocacy Lead to the Mission Competition and APL's | In this module we will cover the following topics: How the science advocacy (Pluto Underground), and the JPL studies ("Fire and Ice") led to the Pluto mission competition. | By the end of this module students will be able to: 1.1 Recall the history of a Pluto mission concept. 1.2 Describe how a NASA-sponsored competition for a Pluto mission came to be. | Voiceover and on-screen narrative augmented with videos, animations, simulations, and graphics.  
Coursera Structure  
Lesson 1 The Historical Encounter and Timeline?  
Video 1 The Historical Encounter | Learning Activity: Discussion Activity 1 (LO 5)  
Share another space exploration mission with the class, including details on 1. When it occurred | Published papers and articles from New Horizons and APL bibliography. |

<table>
<thead>
<tr>
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<th>Learning Activities and Assessments</th>
<th>Module Resources</th>
</tr>
</thead>
</table>
| 2       | "Disruptive" History. 1989 - 2002 | The approach taken by APL, the tie-in to other NASA missions that APL has been able to “save” and execute (NEAR, TIMED, PSP) will be discussed. The NASA process by which missions are selected and awarded will also be presented. | 1.3 Determine how NASA missions are selected and formulated. 1.4 Identify some of the key figures involved in this mission. 1.5 Share details on other space missions. | New Horizon Mission Timeline  
Lesson 2 How the Pluto Mission Came to Be  
Video 1 topic. (* 5-10 minutes)  
Video 2 topic  
Video 3 topic  
.......  
Lesson 3 NASA-Sponsored Competition and Selection Process? | 2. Which organizations played a major role in the mission. 3. Was the mission a success?  
Assessment: Quiz (LO 1-4)  
Short quiz on LO 1-4. | Tom Krimigis, Alan Stern, Leslie Young, Me, Chris Hersman, Hal Weaver. |
Design once, deploy anywhere
# Develop & Align Assessment Plan

<table>
<thead>
<tr>
<th>Program Learning Outcome (PLO)</th>
<th>Course in Which Goal is Assessed</th>
<th>Course Name</th>
<th>Where Goal is Measured in Course</th>
<th>Performance Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply knowledge of life sciences (biology, physiology and medicine) to biomedical engineering problems.</td>
<td>585.725.81 Biomedical Engineering Practice and Innovation</td>
<td>Module 3 Assignment</td>
<td>80% of students score 80% or higher</td>
<td></td>
</tr>
<tr>
<td>Review current developments in biomedical engineering and analyze recently published peer-reviewed material.</td>
<td>585.602.81 Physiology II</td>
<td>Module 3 discussion</td>
<td>80% of students score 80% or higher</td>
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<tr>
<td>Use control theory to analyze homeostasis, such as in the maintenance of blood pressure (and other important variables, such as glucose and salt concentrations, blood volume, muscle stretch)</td>
<td>585.602.81 Physiology II</td>
<td>Module 1 assignment</td>
<td>80% of students score 80% or higher</td>
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<tr>
<td>Technical Paper Review on the CRISPR/Cas 9 System</td>
<td>585.607 Molecular Biology</td>
<td>Module 13 Technical Paper Review Assignment</td>
<td>80% of students score 80% or higher</td>
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<tr>
<td>Develop experience with advanced mathematical procedures that they may be exposed to in taking additional course work or more importantly during their career</td>
<td>585.615.81 Math methods</td>
<td>Project 1</td>
<td>80% of students score 80% or higher</td>
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<tr>
<td>Apply physiological knowledge and mathematical methods to design laboratory experiments and equipment, and obtain and analyze data.</td>
<td>585.725.81 Biomedical Engineering Practice and Innovation</td>
<td>Module 2 (Lab 3)</td>
<td>80% of students score 80% or higher</td>
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<td>Module 2 (Lab 4)</td>
<td>80% of students score 80% or higher</td>
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</table>
4 Collect All Achievements into CLR

<table>
<thead>
<tr>
<th>Programs</th>
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<tbody>
<tr>
<td>OUTCOMES AND COURSES</td>
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<tr>
<td>Student Outcomes</td>
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<tr>
<td>Educational Experience</td>
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<tr>
<td>CURRICULUM DESIGN</td>
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<tr>
<td>Mapping By Course</td>
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<tr>
<td>Mapping by Outcome</td>
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<tr>
<td>ASSESSMENT</td>
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<tr>
<td>Assessment Cycle</td>
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<tr>
<td>Assessments</td>
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</tbody>
</table>

**Program Mapping at a Glance**

- **100%**
- **OUTCOMES**: 6
- **TOTAL MAPPINGS**: 12
- **COURSES**: 6

**EPSE.1**
Apply technical knowledge in mathematics, science, and engineering to lead the realization and evaluation of complex systems and systems of systems.

- **EN.645.768**
- **EN.645.800**
- **EN.645.767**
- **EN.645.800**
- **EN.645.662**
- **EN.645.800**
- **EN.645.667**
- **EN.645.800**
- **EN.645.769**
- **EN.645.800**
Discussion - Questions

1. What resources are needed to support faculty?

2. How do you plan on creating a culture of assessment IMPROVEMENT where faculty are willing to use the system?

3. How do you envision using the CLR?