

## Purdue Polytechnic Institute

### What is the Purdue Polytechnic Institute?

- Approved as a Purdue Move by President Daniels and the Board of Trustees in July 2013.
- Transformational engine of the College of Technology. Defining the college in its second 50 years of existence.
- In the image of the College of Technology, it is deeply rooted in educational research and development; it also has strong community and industrial engagement and use-inspired research and development.
- Closing the skill gap from the shift from the knowledge economy to the thinking economy: The economy needs leaders and innovators who can address the grand challenges of the 21<sup>st</sup> century.
- Responding to changing aspirations and needs of the youth: Millennials want to do something significant for their community and their world.
- Providing more access and affordability to higher education: We open our doors and spaces wider and use technology and educational resources for a bigger and more diverse pool of graduates.
- Using the latest scientific and experiential educational research to create the best education essential for a brighter future for our students, our communities, and our world.
- The Purdue Polytechnic educational approaches are high innovation at a small scale, then adapted and diffused in the rest of the college.

### How is education in the Purdue Polytechnic Institute different?

- Learning is integrated, purposeful, and driven by the student's passions and interests.
- Credentialing is competency-based: students are awarded credentials as they demonstrate mastery.
- We complement technical competence with a sense of empowerment and the tools to make value-based decisions and actions.
- We close the skills gap of the 21<sup>st</sup> century: lifelong learning, unstructured problem solving, collaboration and team work, effective communication, and ethical decision making and action.

### **How will the Purdue Polytechnic Institute impact the college?**

- Educational research and development creates far-reaching innovations within the proposed competency-based trans-disciplinary degree. Innovation is adapted and diffused to the rest of the college.
- Purdue Partners: College of Liberal Arts, College of Science, College of Education, Exploratory Studies, Libraries; Provost Office, Registrar, DLRC, CIE, ENE.
- Advisory Board: Olin College, Harvard, Cal Poly, University of Colorado Boulder.

### **Purdue Polytechnic in numbers (Fall 2014)**

- 36 students from 7 majors (Technology and Exploratory Studies) started this fall.
- 16 faculty members worked over a year to develop the learning experience of this year and prepare the competency-based, trans-disciplinary degree proposal.

### **To learn more**

- General: [polytech.purdue.edu/](http://polytech.purdue.edu/), [polytech@purdue.edu](mailto:polytech@purdue.edu)
- Educational Research & Development: [polytechhub.org](http://polytechhub.org), [polyinc@purdue.edu](mailto:polyinc@purdue.edu), PurduePoly on social media (Facebook, Twitter, YouTube)

## **Competency-Based Degree By the Purdue Polytechnic Institute**

### **Why competency-based?**

- Competency-based means focusing on learning and competency rather than seat time.
- Puts accountability on the output (learning) rather than the input (credit hours, faculty time, student time).
- Accounts for the times: opportunities for learning are everywhere; students learn in different settings from different resources; faculty advise, mentor and credential
- Gives more choices to the students because it is more modular: “students choose the songs one at a time rather than buy the whole album”
- Provides more mobility: students can transfer classes more easily because it is easier to add competencies to make up for specific gaps than take whole courses.

### **What is competency-based education?**

- The student's degree and transcript reflect what the student is competent in rather than what classes they took.
- Credentialing is binary. For each competency, the student either has mastered it or not. No credit is given for concepts that are not yet mastered.
- The students pace their learning. They can gain competencies as they are ready; they also can earn them at their pace focusing on mastery.
- It puts students in the driver's seat of their education and allows for much more customization.
- Students' transcripts do not show courses or grades but specific competencies that can be clustered into bigger groups.
- The transcripts are complemented with a digital portfolio that shows the competencies as well as the work the student has done to demonstrate mastery.
- The digital portfolio can be used to create different views for employers.
- Digital portfolios demonstrating competencies and transcripts documenting skills are consistent with employers' needs.

### **How we are implementing them?**

- Working with the Office of the Registrar to work out the logistical details and create a new form of transcripts.
- Creating a new Technology trans-disciplinary degree that is competency-based.
- Applying to the Commission of Higher Education for approval of the new degree to be competency-based.
- Working with Information Technology at Purdue to use the Passport digital portfolios.