3D Printers, Makerspaces, and Bring Your Own Device: Discussions with Emerging Tech Leaders

John Grout, Dean, Campbell School of Business, Berry College
Creative Technologies
(The programs that go on in HackBerry Lab)

- Creative Technologies Course Prefix: CRT
- Major (11 courses)
- Minor (6 courses)
- CRT’ers (interested students who are not majors or minors)
- Monthly Hackathons
- Open 6 pm - 12 am Monday – Thursday
- Staffed by student lab assistants
The Current Space

- 3D printers (5)
- Filastruder (ABS recycling)
- Arduino/Raspberry Pi Micro controllers
- Laser cutter
- Shapeoko Milling machine
- Cirqoid PCB mill/drill/solder paste/pick & place
- Wood shop
- Power tools
- Electronics/PCB tools
- Fiberglass
- Vacuum forming
- Sewing
- Welding
- Ongoing technology & tool acquisition
## Creative Technologies

<table>
<thead>
<tr>
<th>Program Design Feature/Goal</th>
<th>Result</th>
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<tbody>
<tr>
<td>Student determined projects</td>
<td>Intrinsic motivation</td>
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<tr>
<td>Learning to think critically &amp; Persist in solving problems</td>
<td>Problems come naturally from projects—Scientific method is inescapable</td>
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<td>Creation of physical objects</td>
<td>Artifacts of thought</td>
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<td>Fun</td>
<td>Student interest...</td>
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Entrepreneurship
Major Curriculum

Required Courses (27 hours):
CSC 103 - Creative Computing
CRT 101 - Prototyping Basics
CRT 310 - Innovation & Commercialization
CRT 320 - Programmable Logic Controllers & Advanced Robotics
CRT 499 - Design Project Capstone
CSC 235 - Physical Computing: Introduction to Embedded Systems
MGT 340 - Introduction to Entrepreneurship
MKT 423 - New Product Development
PHY 240 - Practical Electronics

Elective Courses (6 hours):
CRT 420 - Special Topics
THE 404 - Advanced Production
MKT 327 - Qualitative Research Methods
PSY 350 - Industrial and Organizational Psychology
PHY 321 I - Computational Methods in Physics
MGT 440 - Advanced Entrepreneurship
Any 300-400 level CSC course
ART 327 - Web Design
ART 340 - Graphic Design
ART 351 - Digital Imaging
COM 405 - Applied Graphic Design
CRT 496 - Technology Internship
CRT 498 - Directed Study
Free elective course:
CRT 300 - Creative Technology Studio (1 credit)