

# Building Blocks to an IPE Curriculum: Creating an IPE Course using Active Learning and Technology

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# Today's Agenda

Overview/Background

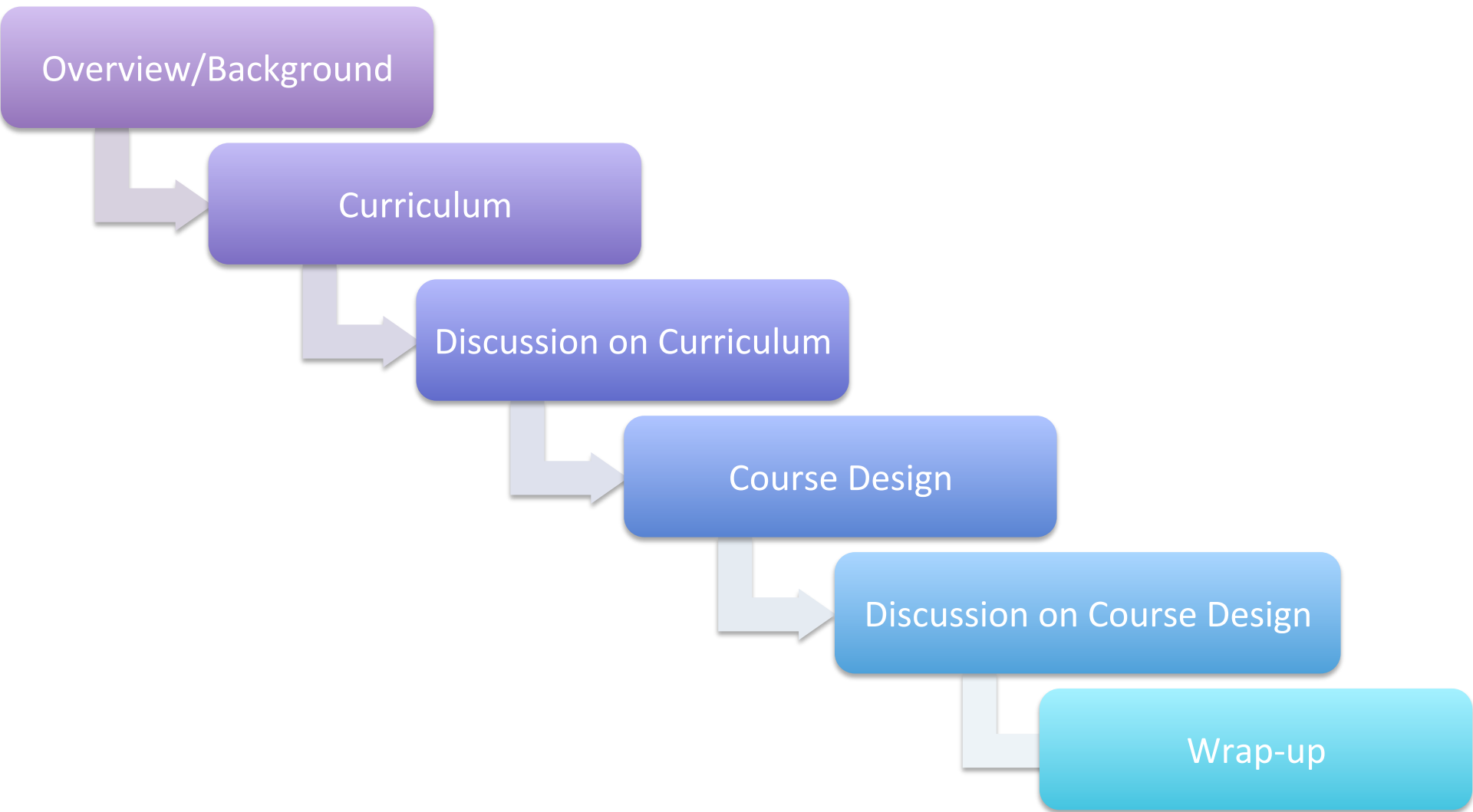
Curriculum

Discussion on Curriculum

Course Design

Discussion on Course Design

Wrap-up



# Learning Outcomes for Discussion

*To investigate the process of creating an IPE course as a starting point for building an IPE curriculum*

*To examine the use of technology as it relates to IPE coursework*

*To explore both the potential roadblocks to success and the options for addressing those roadblocks*



# The UNIVERSITIES *at Shady Grove*



Salisbury  
UNIVERSITY



ub



UMBC



UMES



UNIVERSITY  
of MARYLAND  
THE FOUNDING CAMPUS

NURSING



UNIVERSITY OF  
MARYLAND



COMMUNICATIONS  
& the iSCHOOL

UMBC

PSYCHOLOGY

AN HONORS UNIVERSITY IN MARYLAND

# University System of Maryland

## Powerful Partnerships

### The Universities at Shady Grove

#### University of Maryland, Baltimore County

B.A. History  
B.A. Political Science  
B.A. Psychology  
B.A. Social Work  
M.P.S. Biotechnology  
M.P.S. Cybersecurity  
M.P.S. Geographic Information Systems (GIS)  
M.P.S. Industrial-Organizational Psychology  
Graduate Certificates in Professional Studies  
available in: Biotechnology Management,  
Biochemical Regulatory Engineering, GIS and  
Cybersecurity Strategy & Policy

#### Towson University

B.S. Early Childhood Education  
B.S. Elementary Education/Special Education  
(dual certification)  
M.A.T. Special Education  
M.Ed. Early Childhood Education  
M.Ed. Special Education

#### University of Baltimore

B.S. Health Systems Management  
B.S. Simulation & Digital Entertainment  
M.A. Publications Design  
M.P.A. Public Administration  
M.S. Health Systems Management  
M.P.S. Justice Leadership & Management  
M.S. Forensic Science-High Technology Crime  
D.P.A. Doctor of Public Administration

#### University of Maryland, Baltimore

B.S. Nursing (Basic Option)  
B.S. Nursing (RN-BSN Option)  
M.S.W. Social Work  
Doctor of Pharmacy (PharmD)

#### University of Maryland, College Park

B.S. Accounting  
B.S. Biological Sciences  
B.A. Communication  
B.A. Criminal Justice and Criminology  
B.S. Management with Specialization in Entrepreneurship  
B.S. International Business  
B.S. Marketing  
B.S. Public Health Science  
M.B.A. Business Administration  
M.Ed. Creative Initiatives in Teacher Education (CITE)  
M.Ed. Human Development  
M.Ed. Math Education: Middle School Math  
M.Ed. Special Education/Severe Disabilities  
M.Ed. Teacher Leadership: STEM Education  
Master of Public Health in Public Health Practice & Policy  
Master of Information Management  
M.L.S. Library Science  
Master in Engineering  
MCERT in Elementary, Secondary & PK-12 Education  
Subjects  
Post-Baccalaureate Certificates in Global Health &  
Principles of Public Health  
Post-Baccalaureate Certificates in TESOL & World  
Language Education  
Graduate Certificates in AMASSP & ACDMR  
Graduate Certificate in Engineering

**Institute for Bioscience and  
Biotechnology Research – Shady Grove**  
UMCP, UMB, NIST

**Center for Health & Homeland Security**  
UMB School of Law

**Regional Community Colleges**  
(e.g., Montgomery, Frederick,  
Prince Georges, Howard)

#### University of Maryland University College

B.S. Accounting  
B.S. Business Administration  
B.A. Communications Studies  
B.S. Digital Media & Web Technology  
B.S. Computer Networks & Cybersecurity  
\*B.S. Human Resource Management  
B.S. Cybersecurity Management & Policy  
B.S. Investigative Forensics  
B.S. Public Safety Administrative  
B.S. Software Development & Security  
B.S. Information Systems Management  
\*B.T.P.S. Biotechnology  
B.T.P.S. Laboratory Management  
M.S. Biotechnology  
\*M.S. Health Care Administration  
M.S. Information Technology  
M.S. Management  
  
\*Certificate Program available

#### University of Maryland Eastern Shore

B.S. Construction Mgmt. Technology  
B.S. Hospitality & Tourism Management

#### Salisbury University

B.S. Exercise Science

#### Bowie State University

M.Ed. Education  
Ed.D. Education



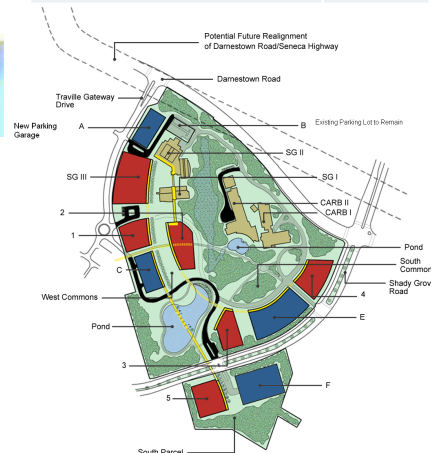
# USG is a USM Regional Higher Education Center Located in Montgomery County Maryland

USG student population mirrors county in diverse population & first generation college attendees

Gender at USG	
Female	55%
Male	45%

Ethnicity at USG	
White	36%
African American	20%
Asian	14%
Hispanic	17%
Other/Not reported	9%
Foreign	4%

Ethnicity in Montgomery County	
White	39.6%
African American	26.6%
Hispanic	24.1%
Other	9.7%

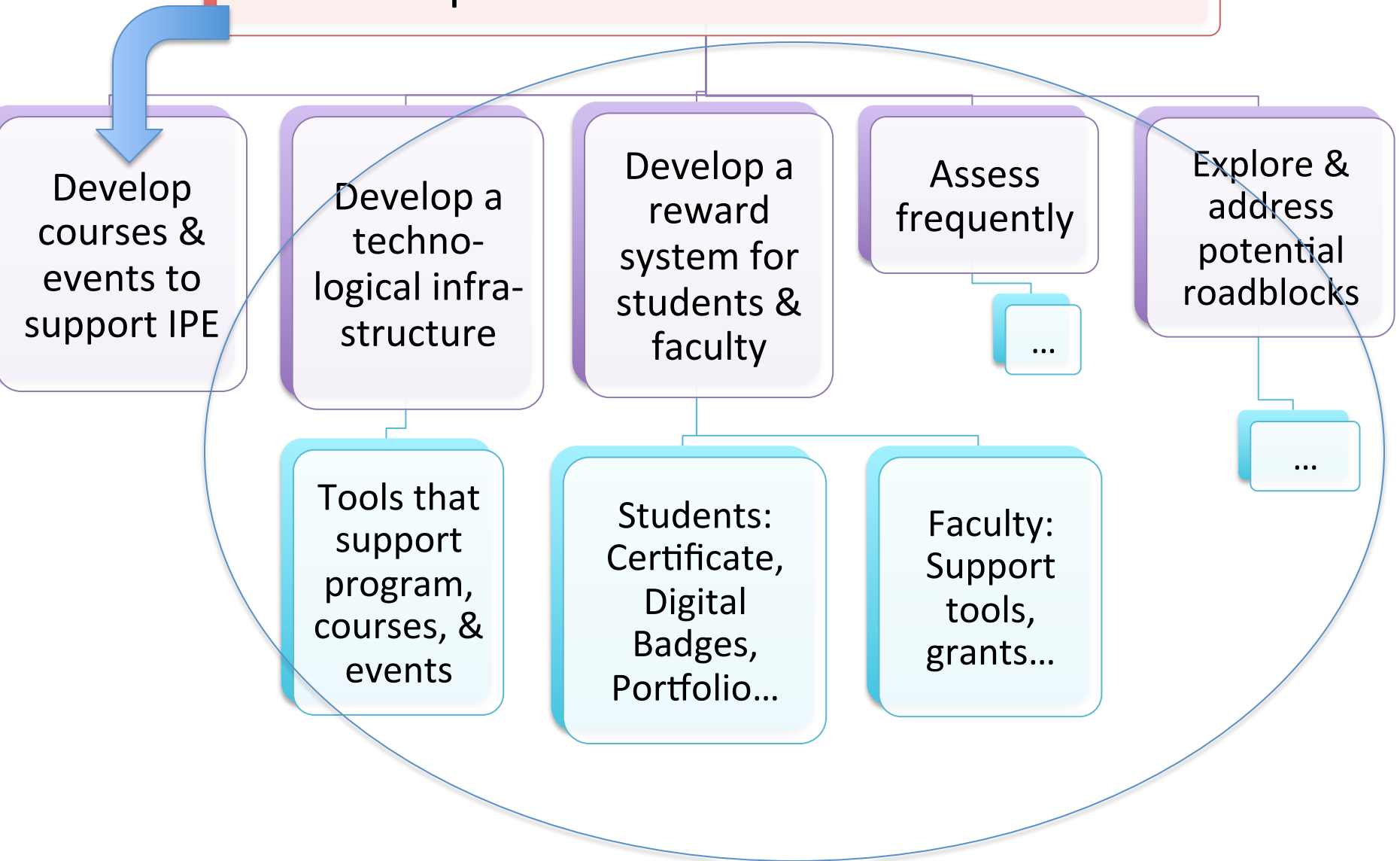


  
The UNIVERSITIES  
at Shady Grove



# Curriculum

Develop an IPE Curriculum for Students



# Develop an IPE Curriculum: Explore and Address Potential Roadblocks

Working across institutions:

- Technology
- Administration
- Money
- Promotions/Recognition

Incentivizing faculty to teach

Incentivizing students to take the  
courses and work towards program  
completion

Creating cohesion: Developing a  
starting point, and providing a path  
towards completion



# Develop an IPE Curriculum: What do we need to know?

Complete a Needs  
Assessment

- Who is involved?
- What curriculum is open (courses/programs)?
- What are the Institutional Barriers?
- How do we incorporate technology effectively?

Consider Outcomes  
for Students

- How do we tie IPE coursework and experience together?

Provide Incentives  
for faculty  
participation

- How do we support faculty with ideas and course design?
- How do we provide monetary/promotional awards?

# Discussion on Curriculum

1. What are some *best practices* for curriculum development as well as some *lessons learned*?
2. How do we make technology and admin work across institutions?
3. How do we incentivize faculty to teach IPE courses?
4. How do we incentivize students to take the courses?
5. What are useful assessments for an IPE program?
6. How do we make the program sustainable?

# Course Design: IPE 101

To be offered in  
SU2016 at USG

Targeted for  
incoming  
transfer students

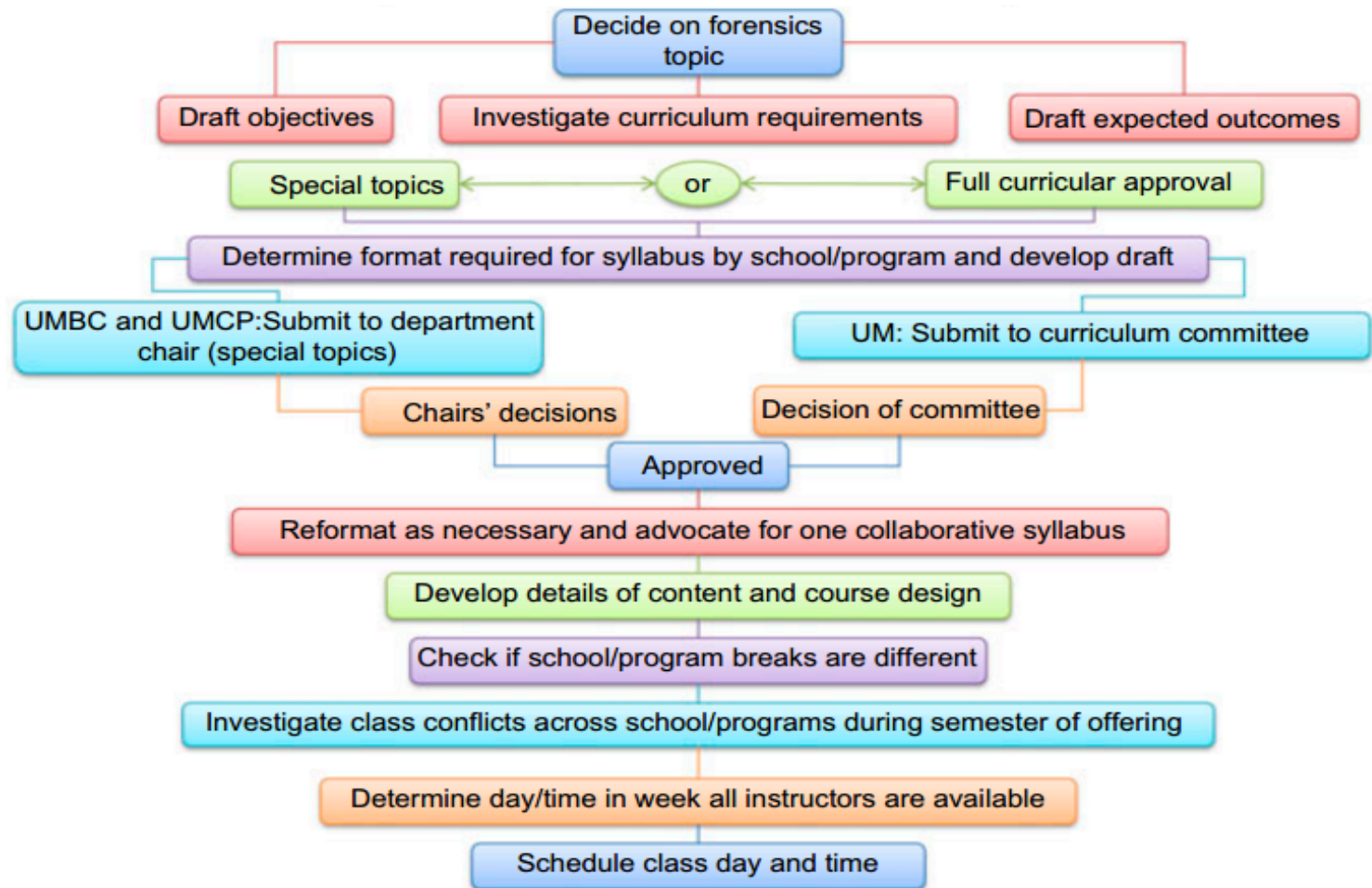
Uses F2F and  
online (hybrid)

Gets students to  
work in inter-  
disciplinary  
teams both in  
person and  
online

“Connections”

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graph TD; A[To be offered in SU2016 at USG] --> E((Connections)); B[Targeted for incoming transfer students] --> E; C[Uses F2F and online hybrid] --> E; D[Gets students to work in interdisciplinary teams both in person and online] --> E;
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# Course Design: Process for Creating the Multidisciplinary Course



UM — University of Maryland, the Founding Campus  
UMBC — University of Maryland, Baltimore County  
UMCP — University of Maryland, College Park

**Figure 1** Collaborative course development.

# Course Design: Incorporating Technology & Innovation Within the Course

## Using Technology

- To organize class tools for reuse and sharing
- For simulations (in person and online)
- Incorporating Social Media (FB, twitter, etc.)
- Using Crowdsourcing (e.g. Mechanical Turk)
- Working in a Technology classroom: The USG Active Learning Classroom

## Using Case Studies and Games

- **Case Studies** - Consider problems from various different angles (professions) – e.g. medicine vs. industry – how would each solve? How does that change when they all come together?
- **Games**: The Mars/Moon problem or the Marshmallow Challenge

## Syllabus

## IPE Overview

- Core Competencies
- Ethics – Understand professional code of ethics

## Orienting Material

## Conflict Resolution

## Use of Games

- The Moon/Mars Problem and The Marshmallow Challenge

## Use of Technology and Innovation

- Crowdsourcing, Mechanical Turk, Social Media
- TBL – IF-AT (not really high tech but useful)

## Course Assessments

- How students are doing/what they are learning and also how well the course meets its goals

## Assessments of IPE, Teamwork, and Individual Roles within the Group

- Individual reflection and Group reflection – in a course how did the individual feel that he/she worked within the group and how well did he/she feel that the group, as a whole, worked AND as a group how did the group feel that the group worked.



# Discussion on Course Design

1. What are some *best practices* for course development as well as some *lessons learned*?
2. What are some of the best ways to incorporate IPE into a class?
3. What are some ideas about creating and sharing reusable tools?
4. What are useful assessments for an IPE course?
5. How do we make the course sustainable?

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