

# **IPRO 397: Interprofessional by Design a Prototype Course for IPRO 2.0**

*AY 2012-2013 Report to the Undergraduate Studies Committee  
Sept 11, 2012*

## IPRO 397: Interprofessional by Design

*with generous support from  
Motorola Solutions Foundation &  
The Chamberlain Group of Duchossois Industries*

- A course iteratively prototyped from Fall 2010 to Fall 2012 guided by an interprofessional instructor team
- Transformative learning via a *collaborative innovation* experience that creates value:
  - the design thinking process
  - the high performance teamwork foundation
  - the IPRO project creation process

### IPRO 397 Team (2010 – 2012):

**Mike Gosz**, Vice Provost, Undergraduate Affairs; **Jeremy Alexis**, Assistant Dean, Institute of Design; **Hanna Korel**, Institute of Design; **Hans Mickelson**, Institute of Design; **David Gatchell**, Research Assistant Professor, Biomedical Engineering & Assistant Director, Pritzker Institute of Biomedical Science & Engineering; **Jim Braband**, Senior IPRO Lecturer, Stuart School of Business; **Jereme Dumm**, Institute of Design; **Linda Pulik**, Institute of Design; **Tom Jacobius**, Director, IPRO Operations; **Steve Stanard**, Associate Professor, College of Psychology; **Danny Gandara**, Ph.D. Candidate, College of Psychology; **Jill May**, Ph.D. Candidate, College of Psychology

## **Faculty Team, Fall 2012**

- Jeremy Alexis, Institute of Design
- Jim Braband, Stuart School of Business
- Steve Stanard, College of Psychology
- Daniel Gandara, College of Psychology
- Hanna Korel, Institute of Design
- Hans Mickelson, Institute of Design

## Goals of IPRO 397

1. Prototype a new workshop-style approach to the IPRO project team course experience
2. Teach methods and processes that can be used in this course and future experiences
3. Gain prototyping experience to demonstrate the efficacy of an alternative model linking the two-IPRO requirement as a progressive sequence
4. Offer students the option of IPRO 397 to satisfy their first IPRO course requirement

<b>Element</b>	<b>IPRO 397</b>	<b>IPRO 497</b>
Team composition	Faculty supervised pods comprised of 2 teams of 5-6 students each.	Faculty supervised team of 12 students (on average)
Faculty	6 faculty representing 3 different colleges	Typically 1, sometimes 2-3
Objective: Teamwork	Didactic approach (2-3 lectures) to teamwork accompanied by applied experience	Didactic approach (1-2 lectures) to teamwork accompanied by applied experience
Objective: Ethics	Didactic approach (2-3 lectures) accompanied with discussion and activities, NIH training on human-subjects research	One discussion/activity facilitated by the Center for the Study of Ethics in the Professions (CSEP).
Objective: Leadership	Supervised and mentored by instructor; weekly leadership meetings for team leaders to discuss practices	Supervised and mentored by instructor
Objective: Communication	Didactic approach (3 lectures) on communication accompanied by applied experience	Applied experience
Project focus	Largely abstract and undefined until midterm; students define an interdisciplinary problem through research and engage in the early stages of solving it.	More concrete and well defined; the problem has been previously defined
Assessment and evaluation	Standardized across individual and team components	Instructor decides how structured course assessment and evaluation will be; highly varied
Team activities	All students within the team engage in all activities	Students typically subdivided into smaller groups to accomplish different components of the major task

# What has been our journey in prototyping IPRO 397?

- Sponsorship
  - Motorola Solutions Foundation -- two or three years of support with various aims
    - One
    - Two
    - Three
  - Chamberlain Group of Duchossois Industries -- Case study in industry engagement over three semesters between IPRO 397 to 497 to 397

## Assessment Plan

- Multi-level
  - Team
  - Individual
- Multi-source
  - Instructor
  - SME
  - Peer
  - Self
- Examples
  - Peer Performance Review (2x)
  - Team Presentation (2x)
  - EOC Ratings

## Feedback

- IPRO instructor team self-evaluation
- IPRO 397 student evaluations
- IPRO NxtGen faculty feedback
- ID graduate student driving insights and conceptual solutions



## Student Feedback

<b>Component</b>	<b>397 (1)</b>	<b>497-1<sup>st</sup> Term (2)</b>	<b>497-Experience (3)</b>	<b>397 →497 (4)</b>
Overall Satis.*	(2,4)	(1)	n.d.	(1)
Utility of course	n.d.	n.d.	n.d.	n.d.
Design Thinking*	(2)	(1)	n.d.	n.d.
Team Knowledge	n.d.	n.d.	n.d.	n.d.
Ethical Thinking	n.d.	n.d.	n.d.	n.d.
Comm. Instruction	n.d.	n.d.	n.d.	n.d.
Overall Learning	n.d.	n.d.	n.d.	n.d.
Critical Thinking	n.d.	n.d.	n.d.	n.d.
Task Conflict*	(2,4)	(1)	n.d.	(1)
Relation Conflict*	(2)	(1)	n.d.	n.d.
Counterproductivity	n.d.	n.d.	n.d.	n.d.

## Faculty Feedback

1. What are your impressions of the IPRO 397 course experience?
2. Do you see opportunities to integrate user-centered design concepts or methods in your other IIT courses?
3. What suggestions do you have to improve the IPRO 397 course experience?

## Faculty Feedback

Q1 Theme	Freq	Q2 Theme	Freq	Q3 Theme	Freq
Positive	4	Applicable to many areas	2	Move Faster	3
Introducing ID Concepts	1	Brainstorming	2	Clearer Expectations	1
Understand IPRO Better	1	Other ID Concepts	2	Use faculty more	1
				None	1

Faculty N=6; 86%

## Impact

- IPRO creation
  - Fall 2010
  - Spring 2011
  - Fall 2011
  - Spring 2012

I PRO 397 Idea	Spring 2011	Summer 2011	Fall 2011	Spring 2012
<b>Fall 2010</b>				
360: Chamberlain	x		[To I PRO 397]	
361: Lego Art	x		x	x
362: MORE Life	x		x	
363: Language Link	x		x	
364: Ramovation	x	x	x	x
365: Simply Park	x		x	
<b>Spring 2011</b>				
366: Repurposing Containers			x	x
367: Test4Life			x	
369: Disease Modeling			x	
<b>Fall 2011</b>				
359: Incubating Venture Ideas				x
371: Inqu				x
372: Global Design Exchange				x
<b>TOTAL</b>	<b>6</b>	<b>1</b>	<b>8</b>	<b>6</b>

## Benefits of offering IPRO 397 as a permanent option

- Taps and cultivates student creativity and incubates ideas in a structured fashion with outcomes that can lead to IPRO formation
- Offers design process and methods that can be transferred to subsequent IPRO projects and other courses
- Accommodates students who enjoy and succeed through a more guided learning experience
- Serves a large proportion of students that is scalable through a consistently delivered approach
- Exposes students to professional perspectives from a diverse faculty team
- Capitalizes on open collaborative space that emulates that of the innovation-driven workplace

## Conclusions and Recommendations

- IPRO 397 experience fulfills the IPRO learning objectives that is highly compatible with students progressing to an IPRO 497 team (whether their own or others)
- IPRO 397 offers structured option for students create IPRO projects via a collaborative innovation process
- IPRO 397 establishes interprofessional user-centered design as a learning framework that adds value to the IPRO experience

Thank you for your time.

May we have your questions?