

## **UIC | BioE**

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

**Miiri Kotche**  
**Stephanie M. Tharp**  
**Susan T. Varghese**

BioEngineering, College of Engineering  
Industrial Design, College of Architecture & Arts  
Marketing, College of Business Administration

**mkotch2@uic.edu**  
**snmunson@uic.edu**  
**svargh7@uic.edu**

### **Course Objectives**

This Interdisciplinary Product Development course is team-taught by faculty members from the three colleges: Architecture and Arts, Business Administration and Engineering. Industrial design, marketing, and bioengineering students will work together to identify and develop opportunities for new products in a medical market defined by client sponsors. The two semester-long design process of identifying and developing a new product opportunity will culminate in the creation of prototypes, business plans, engineering drawings, and so much more. Each team will also present course progress to the client company during the midterm and final of each semester.

The corporate client for 2012-2013 is Baxter International, Inc. Our client has provided a challenging problem statement and significant financial support for this year's course. As Baxter will be sharing proprietary information and knowledge with the class, all students are required to sign a confidential Non-Disclosure Agreement (NDA) and an Intellectual Property Agreement (IP), providing the client ownership of the final work product. This arrangement has been approved by the University's legal department and the deans of the three colleges.

### **Class Meetings**

Mondays, 2:00—5:00 pm  
UIC Innovation Center  
1240 Harrison Street, Chicago, IL

### **Office Hours**

Monday 12:30pm-2pm, by email appointment.

### **Teams**

Each team will consist of 1, 2, or 3 students from each discipline. Teams will be selected by the faculty and announced in the third class.

### **Course Information**

Blackboard.uic.edu (IPD3: Fall 2012), and instructor email.

## Attendance

Your presence in the classes is vital to the overall execution of the project, as well as to your team. Attendance will be taken during the first 10 minutes of the class. Unexcused absences will be penalized with a demotion of **one full letter grade** for the **second, and each, subsequent** unexcused absence. If you are unable to attend a class for good reason, you must inform the faculty at least 24 hours in advance of class, via e-mail, stating the reason for your absence.

## Grading Policies

There are no tests for this course. Grades will be assigned to individuals based on faculty assessment of project performance. Grading based on projects is usually more difficult than grading based on exams. The IPD faculty shall follow the following principles in their grading:

1. Project process will be emphasized, rather than outcome. While everyone delights in inspiring results (and this is traditionally rewarded with high marks), the primary learnings of the student from the course should be how to approach the product development process, and how to work well in teams.
2. The quality of your work on the project, the way in which you work within your multi-disciplinary groups, and your team presentations.
3. The faculty hopes that all team members select or are assigned meaningful tasks and that all students deliver on these tasks for the team. This is much harder than it sounds!

## Grading Breakdown

Team Peer Evaluations (Midterm)	10%
<i>This will be determined entirely by your team.</i>	
Team Peer Evaluations (Final)	15%
<i>This will be determined entirely by your team.</i>	
Assignments and Journal Notes	20%
<i>This will be determined entirely by professors.</i>	
Presentation (Midterm)	25%
<i>This will be determined by professors with input from the client.</i>	
Presentation (Final)	35%
<i>This will be determined by professors with input from the client.</i>	

**A:** 90-100      **B:** 80-89      **C:** 70-79      **D:** 60-69      **F:** Below 59

**Academic Integrity** Don Galer once stated that “integrity is what we do, what we say, and what we say we do.” Academic integrity is basically doing the right thing, in an academic setting, where acquisition of the “right” knowledge is the priority. As an extension, plagiarism is considered academic dishonesty, whether performed intentionally or unintentionally. Plagiarism can include improper citations of acquired work, not crediting sources of reference, outright copying of another student’s, and/or a web-site, etc. Academic dishonesty is an offense against the University and course instructors are required to report such offenses to the Associate Dean for Academic Affairs, and the UIC Dean of Students.

Please review the below links before submission of assignments, and contact the instructors if you have questions:

**UIC Academic Integrity and Plagiarism-**

[www.library.illinois.edu/learn/research/academicintegrity.html](http://www.library.illinois.edu/learn/research/academicintegrity.html)

**UIC Student Academic Code of Conduct-**

<http://www.uic.edu/depts/dos/docs/Student%20Disciplinary%20Policy%202011-12%20Final-1.pdf>

**UIC School of Business Honor Code-**

<http://www.uic.edu/cba/ugrad/Documents/CBAHonorCodestudentresponsibility.pdf>

**Disability Statement** Students needing special accommodations due to disability are required to register with the Office of Disability Services at UIC. Students with emergency medical information to share with the course instructors, or need special arrangements or assistive technology, should also inform the instructors immediately, either in person or via email (email addresses of instructors are listed on the first page of this syllabus).

**Mutual Tolerance** Over the next several months, you will be in continuous contact with individuals from various schools of knowledge, backgrounds, and capabilities. In all interactions and communications, we expect students to exhibit mutual respect and tolerance for one another, extending this to any invited guests and members of the community with whom you come into contact. It is imperative that you conduct yourself as professionals at all times, as not only are you representing UIC, but you are setting the standards for future BioE courses to come. If at any time you feel you have been offended by any content or interactions, please contact one of us or another faculty member immediately.

**File Naming**

For your electronic submissions of assignments, the faculty asks that you follow the naming conventions below. **Every file** name should consist of the following four parts:

- i. The first part tells the name or number of the assignment, and should always begin with IPD followed by a dash and then the assignment #.( ie- the first part for Assignment #1 is **IPD-1**).
- ii. The second part is either your last name for your individual assignment, or your team name for a team assignment. (ie- **Smith** (lastname) or **Hydro** (teamname)).
- iii. The third part is the date that you last modified the file, in the format YYMMDD (ask yourself, why this format?) – if you submit new versions of the same file, the date will change; if you submit two or more versions in the same day, add lowercase letters a, b, c, etc. after the numeric date. (ie- **120923, 120923a,etc.**).
- iv. The fourth part of the file name is a three-digit extension that tells the kind of file it is, and is separated from the rest of the file name with a dot or period. Please note, this extension may be put in automatically by your operating system when the file is saved. (ie- **pdf, ppt, etc.**).

Each of the above four parts should be separated by a dash. For example, **IPD2-1-Smith-080923**.

**IPD-1-Smith-120923.pdf** is a PDF file submitted by Smith for Assignment #1, with the submitted version having been created or modified on Sept 23, 2012.

**IPD-MidTerm-Hydro-121018b.ppt** is Team Hydro's PowerPoint presentation for the Midterm Presentation, the third revision dated October 18, 2012.

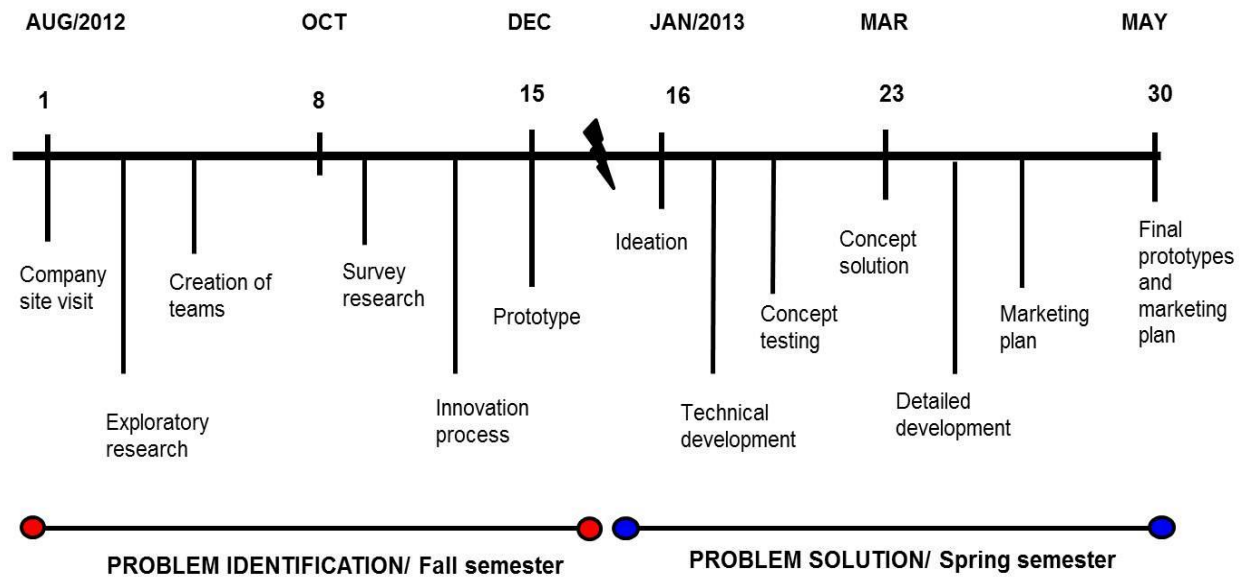
In the event that both team name and your name are relevant, use the format **IPD-#-TeamName-YourLastName-YYMMDD.ext**

## UIC | BioE

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

Typical IPD course timeline:



**UIC | BioE**

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

WEEK/DATE:	TOPIC:	ASSIGNMENTS:
1. August 27	<p><b>Introduction:</b> course expectations, corporate sponsorship, administrative details (NDA and IP), discipline-specific skills assessments, grading, attendance policy, group dynamics, BB, assignments, and individual journals</p> <p><b>Lecture:</b> Course/ process overview (by <b>Miiri Kotche</b>)</p> <p><b>Tour:</b> Innovation center/ IPD home turf</p> <p><b>Video:</b> IDEO</p> <p><b>Activity:</b> Name tags, photos, group activity (Marshmallow challenge)</p>	<ol style="list-style-type: none"><li>1. A&amp;A Project Lab Certification (<b>ASAP</b>)</li><li>2. <b>Assignment #1-</b> Discipline-specific skills assessment (<b>due Sept. 10</b>)</li><li>3. <b>Assignment #2-</b> Background research on Baxter, and framing questions for company visit (<b>due Sept. 10</b>)</li></ol>
2. Sept 3	<p><b><i>NO CLASS- Labor day holiday</i></b></p>	
3. Sept 10	<p><b>Tour:</b> Off-site visit to Baxter</p> <p><b>Lecture:</b> Introduction of company and problem statement (by <b>Baxter management team</b>)</p>	Journal notebooks ( <b>due Sept. 24</b> )

## UIC | BioE

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

4. Sept 17	<p><b>Lecture:</b> Mapping industry space (by <b>Susan Varghese</b>)</p> <p><b>Activity:</b> Team formation and off-site pizza</p>	<ol style="list-style-type: none"><li>1. <b>Assignment #3-</b> Team name and team contracts (<b>due Sept. 24</b>)</li><li>2. <b>Assignment #4-</b> Industry analysis and SWOT analysis of Baxter (<b>due Oct. 15</b>)</li></ol>
5. Sept 24	<p><b>Lecture 1:</b> Human centered research (by <b>April Starr</b>)</p> <p><b>Lecture 2:</b> Observation and interviews (by <b>April Starr</b>)</p>	<ol style="list-style-type: none"><li>1. <b>Assignment #5-</b> Submit a total of 30 interview questions (10 questions per target group) for clinicians, care givers, and patient groups (<b>due Sept 28</b>)</li><li>2. <b>Assignment #6-</b> Conduct 2- 3 interviews with friends and/or family in provided format (<b>due Oct 1</b>)</li></ol>
6. October 1	<p><b>Lecture:</b> Data analysis (by <b>April Starr</b>)</p>	<ol style="list-style-type: none"><li>1. Journal notes (<b>due Oct. 8</b>)</li><li>2. <b>Assignment #7-</b> Mid-term deliverables (<b>due Oct. 8</b>)</li></ol>
7. October 8	<p><b>Activity:</b> Mid-term rehearsals</p>	

## UIC | BioE

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

8. October 15	<b>Activity: Mid-term presentations</b> (to biotech company management, and faculty)	1. <b>Assignment #8-</b> Team and self- evaluations ( <b>due Oct. 18</b> )  2. Journal notes ( <b>due Oct. 22</b> )
9. October 22	<b>Activity:</b> Mid-term debrief with IPD faculty (individual teams in rotations)  <b>Activity:</b> Team and self-evaluations with IPD faculty	
10. October 29	<b>Activity:</b> Lego activity (by <b>Stephen Melamed</b> )  <b>Activity:</b> Team brainstorming of at least 20 ideas categorized/prioritized for solution	
11. Nov 5	<b>Lecture:</b> Concept cards ideation (by <b>Stephanie Sharp</b> )  <b>Activity:</b> Team synthesis	<b>Assignment #9-</b> Develop 10 concept cards and prototype ( <b>due Nov. 12</b> )
12. Nov 12	<b>Activity:</b> Discuss individual team concept cards and prototypes	Journal notes ( <b>due Nov. 19</b> )



## UIC | BioE

University of Illinois at Chicago  
Interdisciplinary Product Development

AD420/520. BioE396. MKTG577  
Baxter International Inc. 2012—2013

13. Nov 19	<p><b>Activity:</b> Rehearsal of final presentations with IPD faculty</p> <p><b>Activity:</b> Prototype evaluation with IPD faculty</p>	<p><b>Assignment #10-</b> Final presentation deliverables (due Nov. 26)</p>
14. Nov 26	<p><b>Activity:</b> Working session rehearsal in teams, with roaming IPD faculty</p>	
15. December 3	<p><b>Activity: FINAL presentations</b> (to Biotech company executives, IPD faculty and peers)</p> <p><b>Activity:</b> IPD annual year-end holiday banquet (location: TBD)</p>	