AD420 • ME444 • MKTG594  Motorola Project
Fall Semester, 2008

Stephen Melamed, Industrial Design, College of Architecture+Arts
Michael J. Scott, Engineering, College of Engineering
Albert Page, Marketing, College of Business Administration

Course Syllabus
IPD : : Interdisciplinary Product Development

This course in Interdisciplinary Product Development is team-taught by faculty members from three colleges: Architecture+Arts, Business Administration, and Engineering. In addition, there will be several other faculty providing valuable guest lectures on specific areas of expertise. Teams of six or seven students from industrial design, marketing, and engineering work together to identify and develop opportunities for new products in a broad market arena defined by a corporate client/class sponsor. The year-long (2 semesters - Fall '08 & Spring '09) design process of identifying and developing a new product opportunity will culminate in the creation of form and functional prototypes. Each team will make four presentations of course progress to top management of the client company.

The corporate sponsor/client for 2008-09 is Motorola, wireless mobile communication division. They have provided an interesting and challenging assignment, as well as significant financial support for the course. They will also be sharing proprietary information and knowledge with the class. All students will be required to sign a Confidentiality Non-Disclosure Agreement (NDA) and an Intellectual Property Agreement (IP) that gives the client ownership of the work product of all student teams and faculty. This arrangement has been approved by the University Legal Department as well as the Deans of all three colleges.

Class Meetings
Tuesdays 3:00-5:30pm  UIC Innovation Center  1240 W. Harrison Street
(Unless announced otherwise)
There may also be team meetings with faculty until 6:00pm.

Faculty
Stephen Melamed, IDSA
Art+Design
Industrial Design
106 JH/Tres Design Group
312.670.6880
melamed@uic.edu

Albert L. Page, PhD
Business
Marketing
2220 UH
312.996.6233
alp3@uic.edu

Michael J. Scott, PhD
Mechanical & Industrial Engineering
3057 ERF
312.996.4354
mjscott@uic.edu

Course Web Site
http://www.ipd.uic.edu/IPD

Teams
Each team will consist of 1-3 students from each of the three disciplines - business, industrial design, and mechanical engineering. Teams will be selected by the faculty and announced in the third class session.

Grading Policies
There are no tests. Grades will be assigned to individuals based on faculty assessment of performance on the group project and on student evaluations of team member performance (effort and contribution). Please refer to the accompanying handout on grading for detailed explanation of all policies, including attendance.
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Fall Semester, 2008

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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Course Syllabus : : Topics, Week-by-Week</th>
<th>Subject to change</th>
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</table>
| 1.   | August 26 | Introduction - Course overview, corporate sponsorship, process overview, administrative details, skills assessments, course mechanics, grading policy, and team formation process  
- Prof. Christopher Barlow, PhD - IPD Faculty Resource and Guest Lecturer  
  Director of Experiential Learning UIC / Director Co-Creativity Institute  
  barlowc@uic.edu  
  312-355-2150  
  ◇ Name tags with random group exercises  
  ◇ Syllabus interview activity  
  ◇ Modelling brainstorming activity  
- Assignment 0: Administrative class requirements (Due: ASAP)  
  (Including - Shop Orientation in Project Lab, A+A Bldg.)  
- Student photos for IPD website  
- Assignment 1: General background research on Motorola Corporation, the industry  
- Assignment 2: Discipline specific skills assignments  
- Talkers / Listeners  
- Legal Agreements: NDA / IP  
- Week 2 logistics  
- In class exercise - Designerly Thinking (toothpicks)  
- Tour of the Innovation Center / IPD home turf | |
| 2.   | September 2 | Introduction to Motorola Corporation at downtown Chicago Global Design Center  
  233 North Michigan Avenue  
  8th Floor - Lincoln Park Conference Room  
  3:00pm | |
|      |      | Guest speakers : :  
- Peter Pfanner  Director, Industrial Design North America  
- Roger Aady  Director, Advance Mechanical Engineering  
- Sean Daw  Business Design Lead for Company Products  
- William Maes  Manager Design Operations & Prototyping  
- Joi Roberts  Design Operations Manager - Consumer EXperience Design  
  ◇ Prof. Barlow : : Brainstorm activity with Motorola | |
| 3.   | September 9 | Lecture: Background / User / Visioning Research  
- Assignment 3: On-going project (year-long) documentation and mandatory file naming conventions  
- Assignment 4: Trend / Mood Boards, alternative background research  
- Guest Lecture : : Prof. Elizabeth (Dori) Tunstall, PhD, Design Anthropology - Cultural Mining  
- Assignment 5: Visual Stories, self-documentation research  
- Assignment 6: Team name / team logo  
- Team formation kickoff event at Giordano’s and lottery for client-provided domains  
  ◇ Prof. Barlow : : Team resume activity | |
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<tbody>
<tr>
<td>4</td>
<td>September 16</td>
<td>Lecture: Project Management</td>
<td>Lecture: Introduction to VOC and practice / user-centered research</td>
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<td>Assignment 5.a (part 2): VOC follow-up from Visual Stories</td>
<td>• Assignment 7: On-going project management document</td>
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<td>In class exercise - Create group trend/mood board / Gallery walk</td>
<td>• Assignment 8: Preparation for team-building exercise (Week 6)</td>
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<td>Introduction to brainstorming techniques</td>
<td>• Lecture: Forming-Norming-Storming-Performing</td>
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<td>◊ Prof. Barlow: Creativity / team awareness exercise</td>
<td>Directions to and preparation for the Thinkubator</td>
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<td>5</td>
<td>September 23</td>
<td>Thinkubator: Class field trip to creativity facilitation space</td>
<td>312 N. May Street, Suite 6A, Chicago (Gerald Haman, SolutionPeople)</td>
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<td>Play the BrainGame</td>
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<td>6</td>
<td>September 30</td>
<td>Guest Lecture: (Prof. Emeritus) Rob Cooke, PhD Human Synergistics</td>
<td>Team building and (PMI) training exercises</td>
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<td>Assignment 9: Team strengths / weaknesses summary report</td>
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<td>7</td>
<td>October 7</td>
<td>Preparation for Mid-term Presentations</td>
<td>Lecture: Benchmarking against past Mid-term IPD presentations</td>
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<td>Guest Lecture: Plenary presentation by presentation skills coach</td>
<td>• Assignment 10: Mid-term Deliverables</td>
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<td>◊ Prof. Barlow: Creativity / team awareness exercise</td>
<td>• Lecture: Focus Group prep: Moderator’s Guide / Participant Profile</td>
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<td>• Assignment 11: Focus Group preparation - Moderator’s Guide, Participant Profile, meet with SRL (UIUC Survey Research Laboratory) staff</td>
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<td>8</td>
<td>October 14</td>
<td>Dry run (practice) Mid-term presentations to IPD Faculty</td>
<td>Presentation coaching, individual teams (outside of class)</td>
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<td>9</td>
<td>October 21</td>
<td>Mid-term Presentations to Motorola management at UIUC Innovation Center</td>
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<td>10</td>
<td>October 28</td>
<td>Mid-term Debrief with IPD Faculty and Motorola management, individual teams</td>
<td>Focus Groups - Moderator’s Guides</td>
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<td>Assignment 12: Executive Summary / Report to Motorola on Focus Groups</td>
<td>Assignment 13: Research existing product in preparation for breaking the paradigm</td>
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<td>11</td>
<td>November 4</td>
<td>Creativity / Ideation - Breaking the paradigm</td>
<td>◊ Prof. Barlow: Analogies / metaphors / creative complexity / starfish visual brainstorming / guided imagery</td>
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<td>Lecture: Size of the opportunity</td>
<td>Assignment 14: Size of the opportunity (SOTO)</td>
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Election Day: Vote
Week | Date |
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12. November 11 |
• Ideation and storyboarding - learning to 'tell a story'
• Last Focus Group scheduled for Friday, November 14th
• Assignment 15: Ideation for quantity (compiled idea list for Motorola)
• Assignment 16: Strength of the opportunity - Identify bolstering quotes from team interviews and Focus Groups
• Guest Lecture: Creighton Berman, IDSA from Gravity Tank: Storyboarding as an effective technique for ideation, product development, and presentation
  • Pixar clip, storyboarding in-class exercise
• Assignment 17: Storyboarding for top 1-2 ideas

13. November 18 |
• Lecture: Ideation for Depth / Ideation for Quality / Idea Screening
• Assignment 18: Report on ideation (idea screening) to Motorola
• Assignment 19: Fuzzy Front End deliverables for final end-of-semester presentations to IPD Faculty and Motorola management at Motorola
  • Ideation analysis & screening - Team progress reports to class

14. November 25 |
• Preparing for next (Spring) semester
• Continued concept development, individual team meetings with IPD Faculty
• Assignment 20: Concept Cards (due week 2 of semester 2) 10 Concept Cards

November 27-30 |
Thanksgiving Holiday - enjoy

15. December 2 |
• Final Presentations to Motorola management and IPD Faculty, location TBD
• Present Problems: Top 3 / comparative analysis / Top 1

Dec.13-Jan.11 |
Winter Break - enjoy

See you Spring Semester