MGT 8803/MGT 8903
Seminar on the Fundamentals of Innovation II
Spring 2003 Syllabus

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Office Hours: Flury -- Friday 12:00 – 2:00 (walk-in); or mornings by Appointment, DCOM Room 330
Thursby –Friday 12:00 – 2:00 Rich Building, Room 322B
Bagley – Wednesday 11:00 – 12:00 noon, Thursday 3:00 – 5:00
Carney – Tuesdays/Thursday 1:30 - 4:00

Class Logistics: Meeting Time Fridays, 3 to 5pm
Location 5C, Emory School of Law
Course Home Page WEBCT -- MGT 8803 (Same Site as Fall Semester)
Texts/Articles/Cases

**A Fresh Look at Industry and Market Analysis**, article by Stanley F. Slater and Eric M. Olson, HBSP Product No. BH068


**Making the License Decision**, Department of Energy Booklet by Marcia Rorke (Previously Distributed to Course Participants)

All other pre-reads will be provided by class session instructors at least one week in advance of requirement.

Course Overview

Fundamentals of Innovation II provides the academic core to the student’s spring semester in the first year in the Technological Innovation: Generating Economic Results (“TI:GER”) program. During the spring, TI:GER student participants will be focused on key activities in commercialization planning with academic content directed towards how to develop (and size) the market for new technologies; basic entrepreneurial finance and approaches to valuing new technologies; understanding the licensing vs. venture decision; and early venture planning. Specific discussions and materials will include both the business and legal considerations in each of these topic areas. Innovation teams that were assigned in the Fall will continue to participate both in in-class activities and cases, as well as in an “engaged learning” experience intended to simulate the technology commercialization process.

Course Structure and Administration

Following the model established in the Fall semester, Fundamentals of Innovation II is intended to simulate entrepreneurial and technology commercialization processes in a variety of environments – including venture, corporate, and university settings – and will be structured to “test” the student’s leadership, judgment, analytical, teamwork, and
communication skills. Accordingly the course has been organized into a set of learning modules with individual and team deliverables. Grading emphasis as noted later in the syllabus will be on team deliverables – specifically the Commercialization Plan and individual contributions to team activities.

Attached is a complete class schedule that provides an overview of each of the learning modules, pre-reads, and assignments. Other assignments and pre-reads may be added at the instructor’s discretion. Modifications to these materials and/or the class schedule will be communicated to the class via the class web-site. An attendance sheet will be completed at the beginning of each class session and will be the basis for directing questions and facilitating the case discussions. Attendance will only factor into a student’s grade if in the opinion of the course instructors, the absences were chronic or were detrimental to that student’s TI:GER team.

The primary team deliverable will be a Commercialization Plan, one for each of the PhD research areas affiliated with that team. In technology commercialization, the role of the Commercialization Plan is to help the inventor/innovation team crystallize ideas about potential products and markets and likely future business models. As a tool it is helpful in communicating to potential markets, investors, licensees and allows the innovation team to explore different options and alternatives. The effort in preparing a Commercialization Plan is primarily in raising and resolving the commercialization issues specific to the technology. As a team assignment, the Commercialization Plan will include 1) a description of the technology application, i.e. product, what it is, what it does, what are its potential uses; 2) a description of the target market – who are the potential customers, what needs does the product meet (what is the value-added to the customer), and overall market attractiveness – size, growth projections, severity of current and likely competition; and 3) the likely business model for commercialization – licensing or venturing. The Plan should also address Intellectual Property ownership considerations/issues and the likely form of business (and why) under a venture commercialization option.

At the conclusion of the semester each team will present its Commercialization Plans to a TI:GER executive panel. A key component of the presentation will be the team’s recommendations on how to structure the next steps – the Fall 2003 term – specific to the commercialization readiness of each of the team’s TI:GER technologies. Team recommendations will be considered in structuring the 2nd year of the TI:GER program.

**Innovation Team Structure and Performance Expectations**

Teams are expected to set their own priorities and commercialization agendas – within the context and schedules determined by the fundamentals of Innovation II coursework. For team assignments each team needs to develop a complete deliverable for each of the two research areas. How the work is allocated across team members is up to the team, however all members of the team will receive the same team grade. Members that make outstanding team contributions will receive superior individual participation grades.
The expectation is that the team effort will be collaborative; that is, no one person – the PhD, MBA or JD - is expected to be in charge or in control of the team resources. Each team is expected to work through and develop its own set of positive team dynamics and work rules. Just as in an actual commercialization setting where strong TIGER teams generally include a set of multi-disciplinary business and functional skills representing various organizational levels/responsibilities, each team is expected to leverage its mix of disciplinary skills; with lead on specific assignments rotated based on the underlying skill requirements – e.g. PhDs for product specification, MBAs for market analysis or valuations, and JDs for IP rights and other legal issues. That said all team members are expected to contribute over the course of the semester to the team deliverable(s) and to other assigned technology commercialization activities.

Each TI:GER team is also expected to meet on a fixed scheduled basis once every two weeks with the Course Liaison. Teams that do not meet as scheduled will be penalized in terms of the overall course evaluation (reduced participation grade). The purpose of the team meeting with the Course Liaison is to help ensure good team dynamics and to provide specific mentoring and/or direction in specific team activities – mainly in developing the Commercialization Plan. An agenda for the team meeting is to be prepared by the team and emailed to alan.flury@mgt.gatech.edu 24 hours before the scheduled meeting. Meetings can be conducted on either the Tech or Emory campus and if necessary students can join the meeting remotely via speakerphone. If jointly agreed to by the team and the course liaison, team meetings can be rescheduled or cancelled – particularly if team activities and progress do not merit or require instructor intervention.

**Workshops**

In addition to the class work summarized above each student is required to attend eight (8) events external to the TI:GER program: university sponsored workshops, lectures, speaker series, etc. – on topics relevant to technology commercialization, innovation, or entrepreneurship. Participation in these workshops is intended to expose students to a broader set of technology commercialization and entrepreneurial experiences; and to help students begin to develop a network of contacts. Events approved for workshop credit include the Impact Speaker Series; The Pearson Lecture; Georgia Tech 2003 Business Plan Competition Workshops; Technology Alliance of Georgia (“TAG”) and SERIS monthly meetings; and others that will be identified and posted at the class web site. Also students are encouraged to seek out workshop opportunities specific to their career interests. Pre-approval however will be required before workshop credit is extended. Students will need to forward a proof of attendance to the Course Liaison to receive event credits.
Course Evaluation

40% of the student’s total grade will be based on individual effort and 60% on team effort. For the team grade the grades of the two Commercialization Plans (per team) will be averaged. Final course grades will be based on a grading distribution appropriate to each college’s grading policies. For MBAs and PhDs letter grades will be awarded on a traditional basis of 90+, A; 80 to 89, B; 70 to 79, C; etc. Emory JD student’s grades will be determined under Emory’s +/- framework.

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<thead>
<tr>
<th>Basis</th>
<th>Grading Responsibility</th>
<th>% of Grade</th>
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<tbody>
<tr>
<td>Participation</td>
<td>Flury/Thursby/Carney</td>
<td>20%</td>
</tr>
<tr>
<td>Mid-Term Case – Zaplet, Inc</td>
<td>Flury</td>
<td>20%</td>
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<tr>
<td>Commercialization Plan</td>
<td>Flury/Thursby/Carney</td>
<td>20%</td>
</tr>
<tr>
<td>Written Document</td>
<td></td>
<td>40%</td>
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<tr>
<td>Presentation/Recommendations</td>
<td></td>
<td>20%</td>
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Each student will be awarded a participation grade for the course. Although somewhat subjective, this grade will be based on feedback from peer team members, instructor observations, and to a lesser degree participation in class discussions (beyond simply asking questions).

The mid-term will be an individual analysis based on the Harvard Business School case study – Zaplet, Inc. Specific case questions, suggested areas of analysis, and grading criteria will be posted to the class web-site two weeks prior to the mid-term due date. Students are encouraged to use class materials and individual research where necessary to complete the assignment but are not permitted to discuss or share their analysis with other students prior to mid-term due date. The case analysis should be developed in MS Office and emailed to alan.flury@mgt.gatech.edu no later than 5pm, March 14, 2003.

Academy Honesty and Student Rights

This course will follow the guidelines established by Georgia Tech’s honor code and student handbook; and the Professional Conduct Code for the Emory University School of Law. All sources of information utilized in any of the course assignments are to be appropriately acknowledged. Please keep in mind that academic dishonesty includes (a) cheating, (b) fabrication and falsifications, (c) multiple submissions, (d) plagiarism, and (e) complicity in academy dishonesty.
Changes to the Syllabus

The above procedures for grading and the class schedule that follows are subject to change -- particularly if highly relevant current events occur; legislation, or academic articles, or research findings are published that provide new context for technology commercialization, innovation, or underlying legal premises or interpretations regarding intellectual property and/or commercial law. Any changes will be posted at the class website in Webct. It is your responsibility to check the web site at least on a weekly basis. Any changes to a specific class session syllabus and discussion questions for the upcoming class will be posted on later than Wednesday at 5 pm prior to the upcoming Friday 3 pm class.
Spring 2003 Class Schedule

Session 14  January 10  (Emory Campus/Flury/Bagley/Thursby)

TI:GER Spring Overview

This session provides an overview of the second semester syllabus and other administrative matters regarding the TI:GER program. The class will also re-visit the Innovation Process Map to establish the relationship between the marketing activities and corresponding technology and organization tasks. Regarding the marketing track, session 14 will discuss the differences between technology-driven market development and innovation (a hammer looking for a nail) and market –driven market development and innovation (a problem looking for a solution). Additionally the CVD vs. A.S. Markham case will be reviewed through class discussion to provide students feedbacks related to the Fall semester “final” project.

Reading:  None
Case:  CVD vs. A.S. Markham

Session 15  January 17  (Emory Campus/Flury)

Framing the Market Opportunity

This session is focused on how to perform a market analysis – including fundamentals around industry analysis (the Porter 5 Forces Model). Topics will include determinates of market attractiveness (e.g. size, growth, degree of unmet needs, etc.), developing a market analysis, and fundamentals of developing a preliminary market strategy. This session will also include a discussion around the special problem of identifying potential applications for “disruptive technologies” using the “TI:GER” technologies as case examples.

Reading:  Knowing a Winning Business Idea When You See One, By W. Chan Kim and Renee Mauborgne, HBR Article, Product No. R00510; and A Fresh Look at Industry and Market Analysis by Stanley F. Slater and Eric M. Olson, HBSP Product No. BH068
Assignment:  Each team is expected to briefly present their views in terms of whether or not their team technologies are “disruptive” or “sustaining” (and if sustaining – which industries) and initial thinking on likely markets.
Session 16  January 24  (Emory Campus/Thursby)

Commercialization Planning: Making the Licensing/Venturing Decision

This session is intended to prep the students for the primary spring work product – the Commercialization Plan. Topics will include specifics on commercialization plan components and development techniques (build on prior class sessions). This session will also include a discussion around the determinants of a licensing vs. venturing commercialization strategy -- including a case analysis and class discussion

Guest Speaker: William Needle, Needle and Rosenberg, P.C.
Pre-Read: Making the License Decision by Marcia Rorke (previously distributed at the TI:GER fall retreat)
Case: None

Session 17  January 31  (Emory Campus/Carney)

Fundamentals of Business Associations

This session begins a more in-depth discussion around venturing with a class session discussion on Business Associations. Collectively both sessions will deal with the types of business associations and some fundamentals regarding the rights/protections afforded ownership. Associations discussed will include Proprietorships, partnerships, Limited Liability Partnerships, and various corporate forms. This session provide of overview of key business agreements including the role of term sheets, and the development (and rights) associated with shareholder agreements and classes of stock. Venturing topics will also be presented in sessions 21, 22, 23, 24, and 25.

Assignment: Each team should draw up a client memo laying out their recommendation as to form.
Session 18  February 7  (Emory Campus/Jayaraman)

Entrepreneurial Finance – Valuing Early Stage Technologies

Session 18 begins a two session overview of entrepreneurial finance with a focus on basic valuation techniques – comparables method, discounted cash flow, and the venture capital method

Pre-Reads: Note on Valuation in Private Equity Settings (HBS 9-297-050)

Session 19  February 14  (Georgia Tech Campus/Thursby)

Lab Visits and Technology Presentations

This session complete the survey of the TI:GER 2002/2203 technologies and will include lab tours and technology presentations hosted by Elizabeth Gadsby and Tarek Elshazly. Class will start at 3:30 rather than the scheduled 3pm time.

Pre-Read: None

Optional Workshop: Basic Market Analysis

Session 20  February 21  (Emory Campus/Jayaraman)

Entrepreneurial Finance – Valuing Early Stage Technologies (Continued)

This session completes the Entrepreneurial Finance topic with a case discussion and brief lecture on venture exit strategies (IPO, acquisition).

Pre-Read: Class Notes/Slides Will Be Distributed By The Instructor at the Beginning of Class

Case: Amazon.com: Going Public (HBS 9-899-003)

Optional Workshop: 5 to 6pm – Bill Needle, Needle and Rosenberg P.C.
Session 21  February 28     (Emory Campus/Flury)

Start-Up Business Planning and the Path to Profitability

This session is focused on commercializing technologies through venturing and discusses the fundamentals of opportunity identification and business planning and will feature a video case relating to student driven technology venture. This session will also discuss the role of incubators (ATDC, Venture Lab, etc.) in the early stages of operationalizing the business. A video introduction for the mid-term assignment will be presented. **Class will conclude at 6:00pm rather than the scheduled 5pm time**

Pre-Read: None

Session X  March 7     Spring Break (Tech) -- No Classes

Session X  March 14    Spring Break (Emory) – No Classes

Mid-term assignment due at 5pm. Please email to alan.flury@mgt.gatech.edu

Session 22  March 21     (Emory Campus/Carney)

Organizing the Venture

This session looks at the process of formation of a corporation. Then it examines the tax issues surrounding the initial organization of a corporation.

Pre-Read: Carney, Corporate Formation and Formalities; Douglas A. Kahn & Jeffrey S. Lehman, CORPORATE INCOME TAXATION (4th ed.) , §7.1 – 7.10 (pp.587-629);
Optional Workshop: 5 to 6pm – Discovery Driven Planning

Session 23  March 28  (Emory Campus/Carney)

Start-Up Financing and the Securities Laws


Assignment: Construct a Checklist for compliance with a preferred form of offering for start-up financing from friends and family members.

Session 24  April 4  (Emory Campus/Carney)

Venture Capital Financing

Pre-Read: Official Code of Georgia §§14-2-601, 602; Walter H. Stribling, “From Terms of Endearment to Terms of Surrender: Preferred Stock Term Sheets in Hot and Cold Markets,” in VENTURE CAPITAL – LEGAL ISSUES (ICLE of Georgia, 2001), pp. 01-00i to 01-053.

Assignment: TBD

Session 25  April 11  (Tech Campus/TI:GER Participants)

Team Presentations

Two of the four TI:GER teams will present Commercialization Plans and a Fall 2003 Path Forward for each of the two PhD research areas on each team. In total the teams will have 45 minutes each (approximately 23
minutes for each research area). Teams will present to a TI:GER “select” panel that will include Thursby/Flury/Carney/Bagley and invited members. All students are expected to attend. Class will start at 3:30.

Pre-read: None

Session 26 April 18 (Tech Campus/TI:GER Participants)

Team Presentations

The remaining two of the TI:GER teams will present. Same format as for Session 26. Class will start at 3:30. All course work will be completed with the session.

Pre-Read: None

ALL COMMERCIALIZATION PLANS ARE DUE TODAY

END OF SEMESTER