

**Technological Innovation: Generating Economic Results (TI:GER)
Special Topics in Technology Commercialization
MGT 6832 – TSA Fall 2009 Syllabus**

Faculty

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Class Logistics

- **Meeting Time:** Thursdays, 4:35pm – 6:55pm
- **Locations:**
 - Tech Square – College of Management – Room 224
 - Emory Law – Gambrell Hall, Room 5E

Course Overview

Special Topics in Technology Commercialization provides students with an opportunity to apply what has been learned in the Fundamentals of Innovation I and II courses. Students will work in the teams formed during the first year to continue work on the Ph.D. team member's technology. Students will also work on a project with the Advanced Technology Development Center – commonly known as ATDC). ATDC is the umbrella organization for technology startups and commercialization of Georgia Tech technology. The ATDC technology and project will be presented early in the semester.

Special Topics in Technology Commercialization is a capstone course designed to create experience with learned concepts and introduce new concepts through the course and the teams' assignments.

The course will focus on:

1. Project planning;
2. Technology commercialization development and expansion;
3. Venture financing and contracts;
4. Presentation and communication skills; and
5. Enhanced interdisciplinary team experience.

Projects and assignments include:

1. PhD project plan: Teams will determine their PhD deliverable (from the list presented on page 3) and steps to achieve the deliverable. Teams will meet with faculty to discuss and agree upon the plan and deliverables.
2. ATDC project plan: Teams will determine their plan to achieve the goal of the ATDC project. Teams will meet with faculty to discuss and agree upon the plan.
3. Licensing evaluation and drafting assignment: Teams will assess a proposed licensing agreement and draft revisions to achieve a hypothetical client's goals.
4. Presentations: Throughout the semester, teams will present insights and their commercialization strategies through a series of presentations. Every team member is expected to participate in the presentations. Presentations include a team overview during the first class of the semester, technology innovation/entrepreneur book presentation, "elevator pitch", ATDC presentation, and two presentations on the PhD project (practice presentation and presentation to the TI:GER Industry Advisory Board).
5. Book report and presentation: Each team will select a book from a list provided and present a 10-15 minute in class presentation and a 2-3 page written summary to share with the class.
6. Class insights and discussions: Periodically during the semester, teams will share and discuss progress of their work and insights from assignments. The class will also participate in discussions with industry experts.
7. PhD project: Teams will determine the most appropriate path for the commercialization of their technology. The PhD project will reflect those decisions in the project plan and in the final deliverable. The scope and extent of the final report will be approved by faculty.
8. ATDC project: The ATDC project and deliverables will be presented at the beginning of the semester. Teams will create a project plan to accomplish agreed-upon ATDC goals and will execute the plan as approved by faculty.
9. Team Evaluation: As in past semesters, each TI:GER student will evaluate his or her team members' performance.

Course Projects and Deliverables

- **Project Plan**

The purpose of the project plan is to provide students with a framework to most efficiently and effectively plan and execute the course's two major projects.

The Project Management Manual will be sold on 08/27/09. Students will receive an introductory session on project management basics.

Project Plan deliverables are:

1. Project Management Plan for PhD Project – **Due: 09/21/09 by noon**
2. Project Management Plan for ATDC Project – **Due: 09/28/09 by noon**

- **PhD Project**

The purpose of the PhD project is to extend the teams' first-year Commercialization Plan, based on the project plan, the maturity and/or applicability of the PhD technology and other factors discovered during the semester. The final report will include the decision and analysis for the path taken, and it can take the following forms:

- a. Business Plan: For teams that want to pursue a business plan, the deliverable is the initial draft of the plan and an outline of next steps for the plan to be ready for competitions and/or fund raising.
- b. SBIR Proposal: For teams whose technology is in the early stages of development, the next step might be applying for an SBIR grant. The deliverable is the determination of the granting source, an initial draft of the grant proposal and an outline of next steps for filing.
- c. IP and Patent Documents: Where IP is central to the technology's commercialization strategy, the deliverable is the development of the IP/patent documents that could eventually be used in the patent application filing. This deliverable could be combined with other deliverables, particularly a project that gets more specific on partners and licensing opportunities (see d. below).
- d. Strategic Partner and/or Licensing Terms: For teams where licensing and/or partnering is a viable commercialization strategy, the deliverable would be the plan and terms for the partner/licensing agreement. This project would include understanding the dynamics of the market and potential partners and it includes a proforma for the subsequent years (for example, how the team expects to manage the ongoing agreement, resources required and revenues expected.)
- e. Organizational Structure and Timeline: At some point in a successful commercialization process, the company must be formed and structured – including the legal form of the entity, the articles of organization or incorporation, ownership, capitalization structure, bylaws, boards of directors or managing members, etc. The deliverable would include items such as: analysis for creating the particular form of the company; analysis/issues/conclusions regarding the ownership; rationale for the structure and bylaws, next steps; and initial draft of the documents for organizing the company.
- f. Other Possibilities: Given this wide list of possibilities, a team may determine that particular aspects of their process need to be developed. An example is to focus on critical aspects of the commercialization process or the team process.

The PhD project has two deliverables:

1. Power Point presentation of the plan, analysis or case study. **Practice: 11/05/09;**
Industry Advisory Board Presentation **Final: 11/19/09.**
2. Written plan, analysis or case study. **Business plans should be no more than 20 pages.** The final report/document - **Due: 12/07/09 at noon.**

- **ATDC Project**

The purpose of the ATDC project is to provide a second commercialization experience with a different/additional technology. Detailed information will be provided early in the semester.

The ATDC project has two deliverables:

1. Power Point presentation to the class and the ATDC staff and company principals, summarizing the project, conclusions and deliverables - **Due and presented: 11/12/09.**
2. Written report that details the project, conclusion and deliverables - **Due: 11/23/09** by noon.

- **Competitions**

The students are encouraged to consider developing their technologies into enterprises and plans that are capable of competing in relevant competitions. Such competitions provide a rich learning environment for the students to:

- gain experience in the depth and breadth of technology commercialization issues, such as: adoption, technology development and implementation cycles, product/service development, customer and revenue creation;
- further develop their analytical, writing, presentation, and communication skills;
- enhance relationship and team dynamic skills; and
- expand their networks.

A variety of competitions (commercialization, nanotechnology, and business plan competitions) are available to teams with mature and high-quality plans. The teams will work with the TI:GER faculty to determine applicability and readiness to compete.

- **Faculty Update Meetings with Teams**

Teams will meet with Program faculty during the semester to discuss Project Management Plans, to provide an update on the teams' selected deliverables, and to help students find needed resources.

These meetings will be scheduled for:

- **Week of 09/21/09** - to discuss PhD project plan; and
- **Week of 9/28/09** - to discuss ATDC project
- **Week of 11/2/09** – to discuss final deliverables

Course Evaluation

A total of 400 points will be available for each student. The percentage of points for each assignment is reflected below. The course will be graded as follows:

Assignment/Activity	% of Grade	Due Date	Submission Method
PhD Project Management Plan	5%	9/21 by noon	Email to Rector & Berbari
ATDC Project Management Plan	5%	9/28 by noon	Email to Rector & Berbari
Book Presentation and Report	5%	Varied – see schedule	Email report to Jenn Smith by 8:00 am on date of your team's class presentation

Ph.D. Project Presentation	10%	11/19	
Ph.D. Project Report	25%	12/07 by noon	Email to Rector & Berbari
ATDC Presentation	10%	11/12 in class	
ATDC Report	25%	11/23 by noon	Email to Rector & Berbari
Contract Drafting Assignment	5%	10/29 by class time	
Team Assessments (VL & PhD)	10%	12/9 by noon	Email to Rector & Berbari

Please note the following:

- **Late assignments** will lose 10% of the total points available for the assignment for every day the assignment is late (i.e., 10% will be deducted if one day late, 20% will be deducted if two days late, etc.).
- **Class attendance** will be taken weekly. Since this three-credit class meets only once per week, missing a class means missing an entire week of information. We understand that job interview conflicts or illness can impact attendance. A student who needs to miss a class must notify Professors Berbari and Rector in advance. After one class absence, students will be expected to ask in advance for an excused absence, without which they will receive a reduction to their course grade appropriate to the number of unexcused absences.
- **Class participation** is encouraged and expected. To enhance participation, students are asked to refrain from using laptops during class time.

Mentors

Each TI:GER[®] team has a legal mentor and most teams have a business mentor. Teams are expected to continue their involvement and schedule at least one face-to face meeting with each mentor during the semester. Communication with mentors should be guided by the TI:GER[®] Mentorship Program Guidelines. ***Please invite your team's mentor to participate in presentation practice sessions scheduled for November 5.***

Class Readings and Reference

- 1) The Project Management Manual will be sold in class, August 27.
- 2) PriceWaterhouseCoopers' *Developing a Business Plan For Your Rapidly Growing Business* will be distributed in class.
- 3) Each team will select a book from a list provided by the faculty and students are expected to purchase or acquire this book.

Students are also encouraged to "keep current" on general topics of innovation and technology commercialization. TI:GER has started a library of relevant books available for you to check out. Excellent business-oriented web sites that provide **free content** helpful in individual development, class preparation, and team activities include the Kauffman Foundation at www.Kauffman.org, Forbes at www.forbes.com, Fortune at www.fortune.com, Business Week at www.businessweek.com, the Wall Street Journal at <http://online.wsj.com/home/us> and www.researchoninnovation.org.

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 Emory 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. For any questions involving these or any other Academic Honor Code issues, please consult the TI:GER® faculty or www.honor.gatech.edu.

Date	Time	Event/Topic/Lecturer	Location	Assignments Due
8/18	6:00 – 8:00 PM	TI:GER® Alumni Networking Event (optional)	Ga Tech Atrium	
8/27	4:35 – 5:00	Semester Overview – review assignments & deliverables Purchase Project Management Handbook	Ga Tech Room 224	Prepare for brief team presentation on current status and anticipated next steps
	5:00 – 5:45	ATDC Projects Keith McGreggor		
	5:55 – 6:55	Individual Team Presentations for Class (5 minutes each)		
8/30	5:00 - 8:00 PM	TI:GER Welcome Reception (first and second year students invited)	Thursby Home	
9/3	4:35 – 6:45	Project Management Lecture Frank Payne Wainscottfinch Consulting	Ga Tech	Complete Project Planning Reading
	6:45 - 6:55			Make team book selection from list provided
9/10	4:35-6:55	Venture Capital Financing and Documents Professor William Carney Emory University	Emory	Reading: William Carney, “Venture Capital Financing and Documentation” Chapter 10 in <i>Advances in the Study of Entrepreneurship Innovation, and Economic Growth</i> , Vol. 18.
9/17	4:35 - 5:15	“Art of the Start” Video & Discussion		

Date	Time	Event/Topic/Lecturer	Location	Assignments Due
	5:25 – 6:55	Entrepreneur Panel: Experience with Plan vs. Execution & Money Raising Issues	Ga Tech	
9/21	Noon			Project Plan Due– PhD Project
9/22 – 9/25	As scheduled	Meetings with Faculty – PhD Project Team	Ga Tech or Emory	
9/24	4:35 – 5:15	Team Presentations on selected book (teams 1-3)	Emory	Complete selected book reading and prepare 10-15 minute presentation for the class (teams 1-3 only)
	5:25 - 6:55	Negotiating Term Sheets Jeffrey Leavitt, Attorney DLA Piper		
9/28	Noon			Project Plan Due – ATDC
9/29 – 10/2	As scheduled	Meetings with Faculty – ATDC Project	Ga Tech or Emory	
10/1	4:35 – 5:15	Team Presentations on Selected Book (teams 4-6)	Ga Tech	Complete selected book reading and prepare 10-15 minute presentation for the class (teams 4-6 only)
	5:25 – 6:55	“The Entrepreneurial Cycle” Stephen Fleming Vice Provost – Georgia Tech		
10/5 – 10/9	As scheduled	Meetings with Faculty	Ga Tech or Emory	
10/8	4:35-5:15	Developing Competitive Advantage Margi Berbari	Emory	Turn in completed worksheets distributed in class on 10/1; Brief presentation from each team
10/15	5:45 - 6:55	Pitch Camp Michael Blake & Scott Burkett StartUp Lounge	Ga Tech	
10/22	4:35 - 5:35	Contracts – Understanding & Drafting Contract Language - Part 1	Emory	

Date	Time	Event/Topic/Lecturer	Location	Assignments Due
		Anne Rector		
	5:45 - 6:55	Team Presentations on selected book (teams 7-9)		Complete selected book reading and prepare 10-15 minute presentation for the class (teams 7-9 only)
10/29	4:35 – 6:55	Contracts – Understanding & Drafting; Contract Language: Part 2 – Rector/Thursby	Emory	Complete reading Rector & Thursby, Chapter 11, Vol 18 (Elsevier series) Contract evaluation assignment due at beginning of class.
11/2 – 11/6	As scheduled	Meetings with Faculty	Ga Tech or Emory	
11/05	4:35 - 6:00	PowerPoint Presentation on PhD Project Practice session with mentors and others	Emory	
	6:15 - 6:55	Feedback to the class		
11/12	4:35-6:25	Teams' ATDC Presentations	Ga Tech	
	6:25 – 6:55	Spring Semester discussion/Semester wrap up; Course Evaluations		
11/19	4:35-6:00	PowerPoint Presentation on PhD Project for Industry Advisory Board	Ga Tech	
	6:00-6:35	Feedback to the class		
11/23	Noon			ATDC Project – Written Report Due
11/26	No Class	HAPPY THANKSGIVING!!!		
MON 11/30		Georgia Pitch-Off TI:GER teams compete with UGA's Entrepreneurship	Ga Tech	Spring semester preference due by noon Register for MGT 8903 if GT MBA or

Date	Time	Event/Topic/Lecturer	Location	Assignments Due
		Class More details later		PhD (optional)
12/7	Noon			PhD Project – Written Report Due
12/9	Noon			Team Evaluations Due