**MGMT632 – Technology Commercialization**

**Spring 2017**

**Syllabus**

**4:00-6:30 Tuesday**

**Whener 112**

INSTRUCTOR:

Mr. Brett Cornwell

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## COURSE DESCRIPTION

MGMT 632 centers on getting ideas, innovations, or discoveries into the marketplace in the form of products or services, or into the value chain at any step, to increase the competitive advantage of the enterprise. The course offers an overview of the technology commercialization process. But more importantly, the course provides opportunities to assess technologies for commercialization and will give an understanding of the commercialization process. Indeed, the most useful description of the course is as a practicum in technology assessment and commercialization. Throughout the course, students are engaged in technology assessment projects. This course links the activities of research and development, product and process design, technology transfer and marketing, new venture financing, technology entrepreneurship and intrapreneurship, protection of intellectual property, and management.

This course answers questions such as:

* What is technology assessment?
* Why is technology commercialization significant to job creation and economic development?
* What is the role of R&D in science and technology commercialization?
* How are technology transfer models used in the commercialization process?
* What support is there for technology commercialization (incubators, commercialization

centers, government, academia, etc.)?

* How is market research performed for early-stage technology?
* What are the management and legal issues in technology commercialization?

# COURSE OBJECTIVES

After completing this course, you will be able to:

* Think of technology commercialization as a process of activities, each with its own issues.
* Assess the commercialization potential of an early-stage technology
* Create a contextual framework for the importance of the voice of the market in determining commercialization strategies and opportunities.

## TEXTBOOKS

Christensen, Clayton and Raynor, Michael. 2003. *The Innovator’s Solution, Creating and Sustaining Successful Growth*. Harvard Business School Publishing Corporation

In addition to the required textbook, a collection of required articles and chapters from other books will be available to you in a reading packet. You are expected to have completed the assigned readings before each class session.

Additional readings will be posted to the ecampus.

## COURSE STRUCTURE

The syllabus is structured so you can easily navigate week by week through the course materials and assignments. If you miss a class session please review the slides for that session and complete the readings.

## Advising

Students are encouraged to keep in touch with me throughout the course. Students who have specific questions on their technologies, assignments or team issues should e-mail or phone me. My office schedule is not set, but I will make an appointment to meet with you or your team as soon as possible, usually within a day.

## Grading

Your course grade will be determined based on the following:

*Individual Assignments and Grades*

Team Participation for Quicklooks 1 and 2 (5% each) 10%

Final Take Home Test 34%

# *Team Assignments and Grades*

# Quicklook Assessment 1 20%

Quicklook 1 Presentation to Class 8%

# Quicklook Assessment 2 20%

Quicklook 2 Presentation to Class 8%

Total 100%

Both Quicklook Assessments are team assignments, and as such, it is imperative that each member of the team contribute actively to the fulfillment of these assignments. Each team (or each member of the team) will submit team self-evaluation scores for these assignments twice during the term. The first set of scores should evaluate individual contribution to the first Quicklook Assessment. The second set of scores should evaluate individual contribution to the last Quicklook Assessment. These self-evaluation scores will be the primary determinant of the team participation grade for each student.

*Class Participation*

Active participation is a major factor for success in this course because we all learn best through active involvement. You are expected to participate in class discussions. Participation means integrating and sharing concepts from your experience, from the text, and from outside sources in your discussions. Participation also means asking helpful questions, summarizing a situation or concept, performing a piece of analysis, or recommending actions to the class through classroom discussions. Class participation is more than class attendance.

*Team Participation – Peer Reviews*

Your team needs to choose between two options for evaluating the overall contribution of each member of your team to the fulfillment of the two Quicklook Assessments. One option - happens to be the option I as an instructor prefer - is team consensus evaluation where the team as a team evaluates every member of the team. The second option is individual evaluation where each team member individually evaluates every other member of the team. Should your team choose the first option all I need from your team is a score (just one), out of 5 points, for each member of your team. Should your team choose the second option then I shall need from each member of your team a score (just one), out of 5 points, for every other member of your team. Scores should reflect the relative contributions of team members and the relative value of the contributions.

*Quicklook Assessments and Oral Presentations*

Written reports will be graded on content, presentation, and persuasiveness. Oral presentations will be graded on content, presentation, and persuasiveness. The presentation is a team presentation. Every member of your team needs to speak. The goal of the presentation is to communicate your findings and make a case for your team’s recommendation. Through this you will share your Quicklook experiences with the class and learn from the experiences of other teams.

Each member of the class is expected to conduct themselves in accordance with Texas A&M University’s policies. All work turned in for a grade should be your work, unless specifically instructed otherwise.

**COURSE SCHEDULE:**

The following is a preliminary schedule for the course. It may be necessary to change the schedule if deemed prudent or necessary to improve the learning process.

**WEEK 1 (Jan 17) – Overview, Team Assignments, The Quicklook Technology Assessment Process**

Activities: Class overview, team formation, review of Quicklook market assessment process

**WEEK 2 (Jan 24) – Elevator Pitches, Jolly Commercialization Model**

Activities: Review of Jolly Model, How to quickly communicate a technology in writing and in words

Readings: Marcure, Judy and Cornwell, Brett et al. 2004, *Marketing Scientific Results and Services*, Chapter 3

Sample Quicklook reports

Jolly, Vijay K. 1997. From Mind to Market: The Process of Technology Commercialization (chapter 1) in *Commercializing New Technologies, Getting from Mind to Market*. Harvard Business School Press.

**WEEK 3 (Jan 31) – Primary Market Research, Secondary Market Research**

Activities: Learn how to perform primary market research and key sources and learn how to find and use key secondary information sources.

**WEEK 4 (Feb 7) – Business Model Canvass**

Activities: Learn the business model canvass as a tool to organize thoughts around the data you need to collect from primary and secondary sources

**WEEK 5 (Feb 14) – Recognizing and Fostering Disruptive Growth**

Activities: Review Chapters 1-4 of Christenson

Readings: Christensen, Clayton and Raynor, Michael. Chapters 1- 4 in *The Innovator’s Solution, Creating and Sustaining Successful Growth*. Harvard Business School Publishing Corporation.

**WEEK 6 (Feb 21) – Managing for Disruptive Technology**

Activities: Review Chapters 5-8 of Christenson

Readings: Christensen, Clayton and Raynor, Michael. Chapters 5- 8 in *The Innovator’s Solution, Creating and Sustaining Successful Growth*. Harvard Business School Publishing Corporation.

**WEEK 7 (Feb 28) – Managing Disruptive Growth**

Activities: Review Chapters 9-10 of Christenson

Readings: Christensen, Clayton and Raynor, Michael. Chapters 9-10 in *The Innovator’s Solution, Creating and Sustaining Successful Growth*. Harvard Business School Publishing Corporation.

**WEEK 8 (March 7) – Quicklook Round One Presentations**

Activities: Quicklook presentations

**Due: Quicklook written reports (electronic copy), Quicklook oral reports (with electronic copy of presentation), team peer review grades**

**WEEK 9 (March 21) – Financing Options for Start-ups**

Activities: Second round technology assignments

**WEEK 10 (March 28) Angel and Seed Financing, Guest Speaker**

Activities: Review angel and seed financing criteria and options

Readings: Albers, Judith. *Before the Negotiations: What Entrepreneurs Need to Know About Seed and Early Stage Venture Capital* -**posted to course website**

**WEEK 11 (April 4) – Licensing**

Activities: Understand the typical deal structures for licenses and negotiation points around licenses

**WEEK 12 (April 11) – Intellectual Property, Guest Speaker**

**WEEK 13 (April 18) – Overview of Commercialization at Texas A&M and Funding Review**

Activities: Commercialization overview at Texas A&M and examination of commercialization in universities in general, review of funding options.

Readings: Bok, Derek 2003. Chapter 6 “The Benefits and Costs of Commercialization” in *Universities in the Marketplace*

**WEEK 14 (April 25) Final Quicklook Presentations**

Activities: Turn in final Quicklook report and present findings in class

**Due: Quicklook written report (electronic copy), Quicklook oral report (with electronic copy of presentation), team peer review grade**

**FINAL – (Due by midnight on May 7) The final will be posted to the web site on April 26. The final is a take home final. It will be your own work, not a team assignment. Do not share your answers with other students in the class.**

**Americans with Disabilities Act (ADA) Policy Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.

* **Academic Integrity Statement and Policy**

*“An Aggie does not lie, cheat or steal, or tolerate those who do.”* For additional information, please visit: <http://aggiehonor.tamu.edu>.