Syllabus  (Version 1.5 11/7/05) : Winter Quarter 2006 Offering

TECH913  Intellectual Capital Management

Winter Quarter 2006 Offering

Section 71: Tuesday Evenings, 6:00 to 9:00 p.m., Weiboldt Hall, Room TBD
CourseinfoURL:  https://www.courses.northwestern.edu/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_135058_1
Section 71 is both a Kellogg  and  NU Law School (Property Tort 656k section 1) offering

Section 91: Wednesday Evenings, 6:30 to 9:30 p.m., Jacobs Center Room TBD, Evanston
CourseinfoURL  http://www.courses.nwu.edu/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_96561_

Course Description:  This course explores the strategic and tactical use of intellectual capital for competitive advantage. In the knowledge-intensive economy, intellectual assets like human capital, intellectual property, brands, and trademarks are becoming an increasingly important proportion of a firm’s total wealth. And yet, most firms/entrepreneurs do a poor job of managing intellectual capital strategically. In this course, we adopt a “lifecycle” approach to the management of an intellectual asset. This lifecycle covers the creation of the intellectual asset, the codification of the asset in the form of intellectual property (IP), the valuation of intellectual assets, the protection of intellectual assets, and leveraging of intellectual assets.

Why take this course?  In the leading market economies, ideas and innovation are becoming the principal drivers of economic growth and competitive business advantage. In emergent industries (biotechnology) populated with many promising start-ups, the agile management of intellectual capital and specifically intellectual properties can the difference between survival and extinction. Additionally, digital product delivery is dramatically impacting the way that the expression of ideas, software, business processes, user experience and other elements of intellectual capital are being created, acquired, leveraged and defended. Evidence of this fundamental change in business practice is best seen in the 700 percent increase in Intellectual asset licensing revenues ($30B to over $200B) that has occurred in the eight years from 1996 to 2004.  TECH 913 satisfies distribution requirements for the Technology Industry Management, Biotechnology, Entrepreneurship, and Managerial Economics majors at Kellogg. NO PREREQUISITES.

Instructor (section 71 and 91):  James G. Conley, Center for Research on Technology and Innovation, Kellogg School, Phone 847-491-4814,  e-mail:  j-conleya@northwestern.edu

Reference Materials:  There is a case pack of reading materials/case studies that is available in the bookstore. Note that reading assignments my not follow order of materials in case pack. Much of the material in the case pack is either required or suggested reading.
Tentative Class Schedule: Week to week content and order as described in what follows is subject to change. Students should review and or read listed materials during week scheduled. Assignments must be prepared before class where they are listed to be discussed. More on all of this in class session #1

Week #1: (January 3-4, 2005), Section 71, 1/4, 6:00 to 9:00; Section 91, 1/5 6:30 to 9:30 p.m.

Subjects: Innovation and Intellectual Assets: Schumpeter and Value Creation, the Taxonomy, Sources of Innovation and the Continuum of Protection: Capturing ideas as transferable assets and property rights. Innovation, Intellectual capital policy and the theory of economic development.

- Course Design, the Syllabus, Motivations for this course.
- Schumpeter and the Theory of Economic Development: The role of innovations and new combinations, sources of Innovations
- The taxonomy: intangibles, intellectual capital, intellectual assets, and the intellectual properties
- The strategic optionality imbedded in an exclusive right.
- The continuum of innovation security and intellectual asset protection.
- The Life Cycle of an intellectual asset.
- Value Transference and maximizing the value of an intellectual asset using multiple forms of intellectual property with the brand being the end goal; Value Translation
- Patents to brands (Aspertame and NutraSweet), copyrights to brands (Disney and Snow White), trade secrets to brands (CocaCola, Dolby)

Readings/Assignments for Next Class:

3. Read The Protection of Intellectual Property in the US, HBS note #9-897-046, in case pack
4. Read Alan Greenspan’s comments on IP Management, Federal Reserve document in case pack
5. Read The Value of a Patent to an Entrepreneur, tools meets a formidable foe KSM case (document #26 in casepack, also posted to course info website)
6. Prepare Assignment #1 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #2 (assignment downloadable from courseinfo site)
7. Read US Patents #5,978,807 and 6,329,919 in case pack
8. Read What is Strategy, HBR Article courseinfo site, suggested
9. Read US Patents #5,549,206 and 5,521,803 (case pack, suggested)
10. Read A Profile of Dolby Laboratories, NJTIP Article, (case pack, suggested)
11. Read Darwin and the Deamon, HBR article by Geoffrey A. Moore (courseinfo site, suggested)
12. Read Shapiro and Lemley article on Probabilistic Patents July 2004 working paper (courseinfo site, suggested)
13. Read Shapiro Article on Navigating the Patent Thicket, July 2001 (courseinfo site, suggested)

TECH913/PTort 656k Winter 2006 Tentative Syllabus version 3.5
Week #2:


- Innovation and Inventions
- From the Sybarites (BC) to the Venitians (Renaissance) to Adam Smith, Jefferson, James Madison and the US Constitution, Article 1 Section 8, a system of limited life monopoly rights granted to encourage public disclosure of useful inventions.
- Patentability and what is patentable? *The role of IT efficiency*
- Patents and the USPTO
- The patent examiner core
- Patent Prosecution strategies
- Strategies for USPTO patent prosecution, continuations, CIP’s, Divisionals, Reissues etc.
- Prosecution of patents for competitive advantage
- Blocking patents
- Smart bomb patents
- Submarine prosecutions and the Laches theory
- Wall Street Patents, Business Process Patents, Software patents
- Priceline’s patent; Amazon.com Patent
- The global Perspective on software patents, EPO, USPTO, JPO, PCT etc.
- Genome related patents, plant gene patents, human genome and Celera and Incyte Pharmaceuticals
- Discussion of the *Value of a Patent to an Entrepreneur: ttools Case*

Readings/Assignments for Next Class:
1. Read *Outrage in Cyberspace: Compuserve and the GIF Patent Case* (case pack, courseinfo site)
2. Prepare Assignment #2 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #3 (assignment downloadable from courseinfo site)
3. Read *Steven Heyer’s Manifesto for a New Age of Marketing, Ad Age Article* (case pack)
4. Read *Top Brands Scorecard Business Week Article* (case pack, suggested)
Week #3:

Subject: Management of innovation source identifiers: Brands, Trademarks, Trade Dress

- Source identification innovations and the customer experience
- Marks, Trade Dress, Trade Names legal definitions
- Marks, Trade Dress, Trade Names in the context of a Brand
- Innovative Types of Marks
- Color and Visuals, dynamic motions
- Sound and Aural
- Other sensory marks, scent etc.
- Value transference and the cognitive touch points of the user experience
- Non-traditional mark forms as the agents of transference.
- Trademarks and the USPTO, Registration
- The continuum of Trademark Strength and strategies for leveraging same
- Life cycle costs of enforcing a descriptive mark vs. fanciful mark
- The Descriptive-Distinctive dichotomy in mark selection
- Leveraging a mark into multiple forms of protection, trade dress for product configuration, 3D marks
- Strategies for Trademark/Tradename protection in the Information Age.
- Domain names and Network Solutions Inc.
- Cyber squatters and Trade name/Trademark-Domain Name Disputes
- Metatag usage Trademarks, typopirates
- Discussion of the Outrage in Cyberspace: Compuserve and the GIF Patent Case

Readings/Assignments for next class:

1. Read, 3M Espe A, KSM case in casepack, also posted to course info website
2. Prepare Assignment #3 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #4 (assignment downloadable from courseinfo site)
Week #4:

Subjects: What you really do not want the competition to know and can keep them from learning: Trade Secrets, employment contracts et al.

- The continuum of innovation security and intellectual asset protection: From Tacit to Explicit Knowledge
- Managing Lead innovators with an abundance of valuable tacit knowledge
- The nature and scope of “confidential information”
- Trade secrets and employment contracts
- Theory of Inevitable Disclosure
- Intellectual Property and the courts
- What is a Trade Secret
- Some definitions of trade secrets and the trade secret statutes
- Effective strategies for Trades Secret formation and protection
- Is the internet a threat to trade secret protection?
- Value transference from Trade Secrets to Trademarks/Brands: Coca Cola, Zildjian Symbols
- Discussion of 3M Espe A Case

Readings/Assignments for Next Class:

1. Read and prepare RIAA vs. myMP3.com KGSM case, casepack and on courseinfo URL
2. Prepare Assignment #4 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #5 (assignment downloadable from courseinfo site)
3. Read The Economy of Ideas by John Perry Barlow (Greatful Dead Lyricist, courseinfo site, suggested)
4. Read Use of a Game Over: Emulation and the Video Game Industry, NJTIP Article, 2004 (case pack, courseinfo site, suggested)
5. Read Righting Copywrongs. New Yorker Magazine, 2002 on courseinfo website, suggested
6. Read Farewell my Logo, FORTUNE MAGAZINE, May 1996, on courseinfo website, suggested
7. Read European Copyright Wrongs, WSJ, January 2002 on courseinfo site, suggested
8. Read Copyright on the Internet at http://www.fplc.edu/tfield/cOpyNet.htm suggested
Week #5:

Subject: Management of the expression of ideas: Advertising, Software, Web Interfaces, Copyrights Topics:

- Innovation in the expression of ideas in advertising and other mediums
- What is a Copyright and what can be Copyrighted?
- Derivative works
- Doctrine of Fair Use
- Regulating bodies in the copyright business.
- Copyrights and registration in the Copyright office
- Parity and the “Wind Done Gone”
- Examples of questionable copyright behavior from the web
- Effective strategies for Copyright protection in the "Information Age"
- Content protection on the web
- The copyright/Character right empire that is Disney, A best practice in media Value Transference
- The Global perspective on copyright
- Discussion of RIAA vs. myMP3.com case

Readings/Assignments for Next Class:

1. Read *The Purple Pill KGSM Case* (case pack, courseinfo site)
3. Prepare Assignment #5 INDIVIDUALLY. This is the MIDTERM Exam and submit by 0600 hours on Tuesday of week #6 (assignment downloadable from courseinfo site in week #5)
Week #6:

Subject: Intellectual Property Strategies in Pharmaceuticals and BioTechnology

- A review of Strategies and Tactics for extending patent monopoly franchises in FDA regulated markets
  - The Hatch Waxman Act
  - Pharmacogenomics
  - The Orphan Drug Act
  - Pediatric Studies
  - Introducing your own generic
  - Suing the generic and launching a 30 month exclusion period.
  - Paying the generic producers (Bayer, Cipro and Barr Laboratories)

- Strategies of fighting a franchise monopoly

- The US Pharmaceutical industry and the role of IP policy in encouraging investments in the revolutionary cures of the future.

- Productivity and creativity in the US Pharmaceutical Industry vs. other nations.

- The third world questions
  - Aids drug cocktails and the cost of development
  - What incentive exists for developing pharmaceutical treatments for diseases unique to under developed countries?

- Discussion of Purple Pill and Prilosec CASE

Readings for next class

1. Read Graftech and Ballard Power Case (case pack, courseinfo site)
2. Prepare Assignment #6 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #7 (assignment downloadable from courseinfo site)
3. Read Claritin and Sherring Plough, NYTimes Magazine 2001, downloadable for courseinfo website suggested
4. Read Managing Intellectual Capital, CMR074, (case pack suggested)
5. Read Victor Shear and Microsoft, Fortune Magazine Article, (case pack, suggested)
Week 7:

**Guest Speaker:** Paul Flignor, Price Waterhouse Coopers, IP Valuation Methods, Accounting perspective

**Subject:** Methods for measuring and accounting for intellectual assets: Beyond Baruch Lev

- Intangibles Assets and the balance sheet
- IP valuation based upon business and legal foundations
- Methods for valuing intangibles such as Patents, Trademarks etc.
  - Comparables methods, DCF techniques
  - Transactional
  - Replacement Costs
  - Income/Premium
  - Options/Binomial
- What is the value of a Brand... The Interbrand methodology for valuing a brand.
- Putting Intangible assets off shore and the tax footprint of a corporation
- Discussion of the Graftech and Ballard Power Case Study

**Readings for next class**

1. Read *Protecting the DVD Invention Part A, KSM Case Study* in case pack
2. Prepare Assignment #7 as a group and submit write-up to courseinfo digital drop box by 0600 hours on Tuesday of week #8 (assignment downloadable from courseinfo site)

Week #8:

**Subject:** Leveraging Intellectual Assets: Licensing, Selling, Swapping, Litigation, VC’s, securitization of IP

- Review of the VC’s business Model and Why do VC’s make investments? The process of innovation to commercialization managed by a VC and the role of securing Intellectual Capital and or Intellectual Property, Stages of investment and role of IC and or IP in each stage.
- Transactions in Intellectual Property, licensing methods and examples in consumer electronics (Dolby, Sony), Media (Disney), Life Sciences (Biogen), Litigation, the last resort; percentages, tactics, strategies and the protracted resource based advantage.
- Discussion of *Protecting the DVD Invention Part A* KSM case

**Readings for next class**

Priceline patent suit links [http://www.wired.com/news/print/1%2C1294%2C31916%2C00.html](http://www.wired.com/news/print/1%2C1294%2C31916%2C00.html)

WEEK #9:

Subject: Student Group Presentations

- Student Project Presentations
- All project presentations need to be in courseinfo site digital drop box by 0600 on Tuesday of Week #9

Week #10:

Subject: Student Project Presentations (if necessary) and course wrap-up

- Summary of project presented in “other” section of course
- The life cycle of an innovation and intellectual assets
- The Market for ideas and the intellectual properties
- Intellectual Property in emergent economies… the China and India questions
- Course wrap-up, review of learning peer group evaluations, course evaluations.
Grading

<table>
<thead>
<tr>
<th>Grade Component</th>
<th>Individual / Group</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>Individual</td>
<td>20 %</td>
</tr>
<tr>
<td>Case Write-ups/Assignments</td>
<td>Study Group/Individual</td>
<td>20 %</td>
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<tr>
<td>Midterm</td>
<td>Individual</td>
<td>20 %</td>
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<tr>
<td>White Paper/Project: Presentation &amp; Paper</td>
<td>Study Group</td>
<td>40 %</td>
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Details on the grade components follow below. Peer evaluation forms posted to the web will be used to assess individual contributions to group projects. It is required that all individual students fill out a peer evaluation form. More details on this during class #1.

Study Groups

You are expected to form study groups of 3-4 students and notify me ASAP, preferably during week #1. Please let instructors formally know by e-mail. If you do not notify us by 0600 on Tuesday of Week #2, we will assign you to a team. Teams should discuss and work on cases (both those with individual and group deliverables) and undertake the final projects. We request that you stay in the same study group all quarter.

Classroom Etiquette and Class Participation

All students are expected to fully comply with the Kellogg Code of Classroom Etiquette (http://www.kellogg.nwu.edu/stu_aff/honor/etiquette.htm)

Please leave your name card up for the entire duration of each class and keep the same seat for the duration of the quarter.

You are expected to attend all classes. **Attendance is mandatory in the first class session, for the midterm case discussion, and for the in-class final project presentations.** If you have to miss class for any reason, you must notify me by e-mail before the scheduled start of the session so that we can schedule alternative arrangements.

Much of the learning in this course comes from class discussion. Your classroom participation grade will be based on attendance, preparation, familiarity with the reading materials, and the quality of your contribution. Some of the key characteristics of valuable contributions are as follows:

- Relevance: Are your comments timely and linked to the comments of others?
- Advancement: Do your comments take the discussion farther or deeper than previous comments?
- Fact-based: Have you used specific data from the case, from readings, or from personal experience to support the assertions that you are making?
- Logic: Is your reasoning consistent and logical? Do you use concepts from the readings or lectures correctly?
• Originality: Do your comments merely restate the facts or do they provide new insights?

Generally, an important criterion is your contribution to the creation of a positive learning environment. For example, correcting me when I make a mistake or asking what appear to be "dumb questions" about what is being covered both do help. In the case of "dumb questions", very often half the students will have the same question in mind and are relieved that someone has posed it.

To increase opportunities for effective participation, I will occasionally cold call students either to open the class or during the course of a discussion. If you feel that you are preparing well but that I am not calling on you often enough, please let me know so that I can adjust.

Midterm Examination

The midterm for this course will be a straight forward exam/Case analysis covering materials discussed in class and addressed in the assigned readings.

Final Project:

This assignment is to be carried out with the members of your study group.

Objectives:

The final project offers an opportunity for student groups to exercise and or integrate the learnings of the course into an in-depth analysis of state-of-the art intellectual capital management processes within a specific firm or industry (healthcare, pharmaceuticals, power generation, automotive, retail, consumer durables, etc.) or technology application domain (electro-optics, etc.). The manuscript can take the form or either a white paper or a case study. Examples of past deliverables are available on the courseinfo web site and will be discussed in depth during the first day of class.

Deadlines & Deliverables:

• Deliverables include a final manuscript and a 15 minute powerpoint presentation to be delivered to the class during week #9. Powerpoint files must be delivered to the courseinfo website by 0600 hours on Tuesday of week #9 for section 71 and Wednesday of Week #9 for section 91.

• All final project manuscript deliverables are due in MSWord document format deposited in the digital drop box on the courseinfo site by 3/13/05 at 11:59 p.m. Alternatively, hard copy manuscripts may be left with either of the instructors.

Grading of Final Projects:

Your grade will be determined based on the quality of your written report and presentation.

A high quality written deliverable is characterized as follows:

- Sound structure, based on a relevant conceptual framework.
- Comprehensive coverage of the relevant issues.
Consistency and depth of analysis; specific rather than vague.

Informative and thought provoking figures and table. In short, the tables and figures should tell the story of your paper.

Good balance between description, analysis and recommendations. When you draw on other sources, it is important that you not merely 'cut and paste' them into your text, but carefully integrate the underlying reasoning into your analysis.

Clearly written and well organized.

Reference and or Footnote EVERYTHING in your paper. Exhaustive and thorough referencing of all information sources with appropriate bibliographic detail and dates accessed for WWW information. Unsupported inferences will be viewed as speculation. See the NJTIP articles in the case pack for reference formatting detail.

All prepared in MSWord Format

A high quality presentation (Presented evenings of March 2 or March 3, sections 71 and 81 respectively) will be clear, informative and balanced in the allocation of time to content. Your objective is to brief your classmates efficiently on your findings. All presentations should be prepared in powerpoint format. Please plan no more than 15 minutes total for presentation and questions.

Feedback on your Performance in this Course

I am very willing to help each student group develop and polish the course deliverables. I welcome the opportunity to comment and edit drafts of student work, provided that I am given ample time. Teams or individual students can arrange meetings with me, schedule permitting. Note that for the downtown section 71, I will be in my office at Wieboldt Hall Each week at least 1 hour before class begins.

We will discuss a proposed schedule of final project interim (ungraded) deliverables to help students prepare and manage their time during the quarter.

Kellogg Honor Code

All students are expected to abide by the Kellogg Honor Code and ANY OTHER RELATED NU Honor Codes in undertaking and completing deliverables for the assignments in this course. See Below URL for link to the Kellogg Honor Code:

http://www.kellogg.nwu.edu/stu_aff/honor/hcode12.htm

Acknowledgements

Some of the ideas for this course have come from many past students (see the case study researchers) and other individuals, including Mohan Sawhney, Holger Ernst, Klaus Brockoff, Shane Greenstein, Scott Stern and others. The author acknowledges all contributions and appreciates solicited/unsolicited suggestions for improvement.
Intellectual Asset Resources on the WWW:


United States Copyright Office: [http://www.loc.gov/copyright/](http://www.loc.gov/copyright/)

E-Commerce and Internet Law Resource Center

Intellectual Property Mall Franklin Pierce Law Center: [http://www.ipmall.fplc.edu/](http://www.ipmall.fplc.edu/)

Managing the Digital Enterprise: IP (NCSU page) [http://ecommerce.ncsu.edu/topics/ip/ip.html](http://ecommerce.ncsu.edu/topics/ip/ip.html)


Foreign Patent Offices link page: [http://www.uspto.gov/web/menu/other.html](http://www.uspto.gov/web/menu/other.html)

European Patent Office: [http://www.epo.co.at/epo/](http://www.epo.co.at/epo/)


German Patent and Trademark Office: [http://www.dpma.de/index.htm](http://www.dpma.de/index.htm)


Greg Aharonian and Bust Patents dot com: [www.bustpatents.com](http://www.bustpatents.com)

Table of IP related fees/damages/settlements: [http://www.bustpatents.com/awards.htm](http://www.bustpatents.com/awards.htm)


Halligan’s Trade Secret Homepage [http://my.execpc.com/~mhallign/](http://my.execpc.com/~mhallign/)

Pullman Group and Bowie Bond Articles [http://www.pullmanco.com/ers.htm](http://www.pullmanco.com/ers.htm)
CASE PACK CONTENTS:

TEC913/Property Tort 656k: Intellectual Capital Management

Winter Quarter 2005 Offerings

Section 71: Tuesday Evenings, 6:00 to 9:00 p.m., Room RB339 , Weiboldt Hall, Chicago campus
Co-listed as Law School Course Property Tort 656k section 20
CourseinfoURL: http://www.courses.nwu.edu/webapps/portal/frameset.jsp?tab=courses&url=/bin/common/course.pl?course_id=_96560_1

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15. Top Brands Scorecard Business Week Article
16. Astrazeneca and the Purple Pill Kellogg Case Study
17. Ground Rules are not the Rules of the Game Kellogg Case Supplement
19. Patents come and Go, Trademarks are Forever Executive Counsel Article
20. Game Over: Emulation and the Video Game Industry NJTIP Article
21. Graftech and Ballard Power Kellogg Case Study
22. Protecting the DVD Invention Part A KSM Case Study Patent Pooling
23. Eolas vs Microsoft KSM Case Study Davd & Goliath
24. Sun Tzu and the Art of Profitting from IP Commentary