EXAM NO. _____

MANAGING KNOWLEDGE ASSETS IN THE UNIVERSITY
FINAL EXAMINATION

PROFESSOR HERSEY SPRING , 2005

INSTRUCTIONS

This is a two-hour exam. It is not open book. The Exam is separated into three parts, without time limitation as to any particular part. Please use the Exam, itself, for indicating answers to Parts I and II (same as you've mastered from the quizzes ☺). Blue books should be used for the essay questions in Part III. Please note the scoring value at the beginning of each part.

PART I: TRUE/FALSE (15 QUESTIONS)
[Each correct answer is worth 2 points for a possible score of 30 points]

Please mark the following observations as True or False (T/F)

1. Although intellectual property management is a topic of current interest on university campuses, because intellectual property is a form of legal protection that is discretionary, its importance is separable from the university's missions of education and research. _____

2. There is a natural correlation between the reach of university intellectual property policies and the number of law suits filed by faculty over issues of ownership. Faculty are disinclined to contest university ownership where policies comprehensively require assignment of faculty intellectual property. _____

3. It is not true that the only situation in which the university can require an assignment of faculty inventions is where the university can establish that the faculty member was hired to invent. _____

4. Universities that protect know-how as trade secrets are in danger of violating their Bayh-Dole obligations. The decision in *Speck v. North Carolina Dairy Foundation* is a case in point. _____

5. Licensing professionals err by failing to recognize that the government's *unlimited rights* in a university's technical data and computer software under the FAR are more extensive than the government's world wide, non-exclusive royalty-free license to patents under Bayh-Dole. _____

6. Industrial patent holders rarely sue universities for patent infringement since universities are generally entitled to claim an experimental use exemption so long as they are using patents only for non-commercial research. _____

7. A major why the UBMTA is not universally used is because it is designed only to cover exchanges of materials between universities and other nonprofits. _____

8. Ownership of copyrightable materials developed in universities is more difficult for universities to claim than ownership of inventions because of the differences between federal copyright law and federal patent law on ownership. _____

9. Although export controls may pose a significant management problem for universities, universities can generally avoid them by ensuring that basic and applications research is publishable. _____

10. The licensing model of technology transfer preferred by U.S. universities is largely a consequence of Bayh-Dole requirements. _____

11. Conflict of interest concerns of universities are largely based on the perception of faculty bias in research. Conflict of interest issues on a university campus would be eliminated if faculty were not allowed to consult. _____

12. Because of the NIH regulations on conflict of interest, most universities have instituted conflicts management procedures that include signing off on faculty consulting agreements. ____

13. If a start-up company fails in its attempts to commercialize a product under a university license, the university will not necessarily lose royalties if it has taken an equity position in the company. _____

14. If you were searching for a case to support your contention that the university owns the copyrights of its faculty, you would not use *Weinstein v. University of Illinois*. ____

15. To avoid being sued for the illegal activities of their faculty, it is better for universities to register under the Digital Millennium Copyright Act than to routinely review faculty web pages to remove any infringing or defamatory materials. ____

PART II - Multiple Choice (15 questions)
[Each correct answer is worth 2 points for a possible score of 30 points]

There are 3 short/not so short hypotheticals below. Following each hypothetical are five multiple choice questions that are relevant to it, although in some cases the questions add new information. Please circle the best answer for each question based on the material to which it relates.

A. Professor Fred Formula, a professor in the Nuclear Engineering Department at High Performance University (HPU), has made an invention during the term of his employment by HPU. Since Prof. Formula conceived the idea for his invention while on sabbatical at Southwest State University, he has elected not to disclose the invention to HPU's Technology Transfer Office (TTO) because he believes the invention is owned by him, personally. It is Prof. Formula's intention to proceed with filing a patent application in his own name. While at Southwest State, Prof. Formula collaborated on a research project funded by A-1 Power Company, Inc., (A-1 Power), but was not paid under the research contract since HPU's policy is to fully compensate its faculty while they are on sabbatical. A-1 Power has become aware of the invention and its in-house patent attorney has called you, manager of HPU's TTO, inquiring when HPU will complete an assignment of the invention to A-1 Power, as required under its research contract with Southwest State.

1. Based on the facts as you know them, your first step in response to A-1 Power's inquiry would be to:

   a. immediately file a patent application on the invention in the name of High Performance University
   b. instruct Professor Formula to submit an invention disclosure to your office as soon as possible.
   c. review HPU's patent policies
   d. tell the company's patent counsel to call Southwest State since HPU has no contractual obligation to A-1 Power

2. High Performance University's strongest legal case for acquiring ownership of Professor Formula's invention is:

   a. The fact that Prof. Formula has signed HPU's invention assignment agreement
   b. Payment of Prof. Formula's salary while on sabbatical making the invention a work for hire
   c. The fact that Professor Formula reduced the invention to practice while home for a weekend visit.
   d. Professor Formula's ongoing research program funded by the Department of Energy which he is supervising while on sabbatical

3. Southwest State's strongest legal case for acquiring ownership of Prof. Formula's invention is:

a. The fact that Jolly Jump, a graduate student at Southwest, is most likely a co-inventor with Professor Formula
b. Its contractual requirement to assign all inventions made under the research program to A-1 Power
c. The fact that an administrative assistant handed a copy of Southwest's patent policies requiring assignment of any invention made using its facilities to Prof. Formula when he arrived on Southwest's campus
d. State law requiring university ownership of any invention made by university employees pursuant to a university research program

4. Considering the particular facts of this case, as between the following, the invention will most likely be owned:

a. Jointly by HPU and Southwest State
b. Jointly by Professor Formula and Jolly Jump
c. Solely by A-1 Power
d. Jointly by HPU and A-1 Power

5. The best way for the parties in the above case to have avoided the complexities they are facing in trying to sort out ownership of the Formula-Jump invention is:

a. For Southwest State not to have entered into a research agreement assigning ownership rights in inventions to A-1 Power
b. For HPU and Southwest State to have entered into an agreement whereby HPU would assign to Southwest State any invention made by Professor Formula while at Southwest State
c. For A-1 Power to have entered into a separate agreement with HPU covering ownership of any invention made by Professor Formula under the research program
d. For HPU, Southwest State and Professor Formula to have entered into an agreement covering disposition of inventions the Professor might make while at Southwest State.

B. Paula Processor is a rising star in the computer science department at New Technical State University (NewTech State). As a new assistant professor, she is aware of the difficult road ahead of her in trying to earn tenure. She knows she must teach, write proposals for research grants and publish. Although it seems like an overwhelming agenda, Paula, in addition, has an entrepreneurial streak that she is interested in cultivating. Her most recent accomplishment, conception of an algorithm that she hopes will permit marine biologists to decipher what porpoises are saying to one another underwater, appears to be potentially patentable and to have enormous commercial potential since there are many different applications for it. Paula's immediate problem, however, is that the invention is

not yet fully developed and she would like to find funding to continue her research in hopes of reducing the concept to practice. Because you, as associate general counsel at NewTech State, have been assisting NewTech State's technology transfer office and because you have been involved in developing NewTech State's intellectual property policies, Paula has come to you for advice.

1. If Paula tells you that she is trying to decide between submitting a proposal to the National Science Foundation for a two-year research program or contracting with Pacific Porpoises Inc., for a one-year research program at twice the funding level as the NSF program, but her main concern not giving up what rights she may already have in her invention, you would advise her that:

a. Until a patent issues there is nothing to give up so not to worry about it.
b. Since her invention has already been conceived, if she accepts NSF funds she will not have to give up rights to the government.
c. Accepting funding from Pacific Porpoises means that it is unlikely she will be able to start a company to commercialize her invention
d. If she accepts funding from Pacific Porpoises she should also insist upon a consulting contract

2. Assuming Paula decides to submit a proposal to NSF for funding, the major consequence that she would worry about would be:

a. That the algorithm will be export controlled
b. That the algorithm will be considered a subject invention
c. That the invention will be licensable only to a U.S. company
d. That she cannot consult for Pacific Porpoises during the term of her NSF sponsorship

3. While continuing work on her algorithmic invention, Paula is also supervising a graduate student who is pursuing a Ph.D. in acoustics. The student's thesis involves the sound waves generated by underwater mammals. In addition to his thesis, Paula's student, Wally Whale, has written a digital glossary that helps laypersons to distinguish underwater mammal sounds. Wally calls his digital work *Moby Dick's Dictionary*. Wally has come to your office asking as between himself, NewTech State and Professor Processor, who owns the dictionary? In discovering that NewTech State has yet to develop a policy covering copyright, relying on your understanding of U.S. copyright law, you tell Wally that:

a. As Wally's thesis supervisor, Professor Processor owns the dictionary under the scholarly works exception recognized by U.S. copyright law
b. No one owns the dictionary since it contains underwater mammal sounds which are facts and hence not copyrightable
c. The university owns the copyright in the dictionary as a work for hire since Wally, as a graduate student, is paid a stipend
d. The most relevant factor in your decision has to do with Wally's funding

4. Paula has decided to pursue funding from Pacific Porpoises since there is no certainty that NSF will fund her continuing research. Her deliberations with Pacific Porpoises have produced a term sheet from the company's general counsel that includes the following benefits to Pacific Porpoises:
(i) A royalty-free exclusive license to all research results
(ii) A right to Paula's consulting services for one year after the termination of the research project at a reasonable hourly rate;
(iii) An immediately exercisable option to acquire a royalty-bearing exclusive license to Paula's algorithm whether or not patentable
(iv) A right to share in royalties earned by NewTech State's licensing of inventions first conceived under the research program and later reduced to practice
(v) A right of first refusal for an exclusive license to *Moby Dick's Dictionary*.

Of the terms suggested by Pacific Porpoises, as the university lawyer responsible for ensuring that NewTech State does not enter into agreements which place it at risk, you are willing to accept:

a. All of them if Paula agrees
b. None of them
c. (ii) and (iii) if Paula agrees
d. (iii) and (iv)
e. (v) if Wally Whale agrees

5. Reviewing alternatives for the release of *Moby Dick's Dictionary*, you consider that NewTech State might distribute it over the Internet as an interactive dictionary to which new sounds can be added by interested scientists, underwater divers and children playing at the beach. If you were to seriously consider this approach, your greatest problem would be that:

a. if the university charges a subscription fee for access to *Moby Dick's Dictionary,* the work it will not qualify for a fundamental research exemption as basic research
b. NewTech State will risk potential liability as a publisher
c. by supporting this activity, NewTech State is carrying on a business and may lose its tax exempt status
d. NewTech State will be exposed to costly copyright infringement suits

C. The provost at Noteworthy University has been approached by the faculty in the art department with a series of proposals to bring the university's art department into the 21st century using new technology. The faculty have made three proposals, to wit:

Proposal No. 1 involves placing digital images of student artwork onto the departmental website so that art departments and students in other universities can appreciate the level of

mastery achieved by the students at Noteworthy University. In addition, the faculty think it will be useful to interest prospective art students in considering attending Noteworthy.

Proposal No. 2 is to help students exhibit and sell their artwork by establishing a publicly accessible on-line auction. Students will be encouraged to display digital images and descriptions of their work. The art department will collect any payments, guarantee delivery of the students' work to the buyers and keep 15% of the sales price as a royalty.

Proposal No. 3 concerns an art appraisal venture that the faculty would like to establish. The proposal would require the university to invest in the project in the amount of $200,000 to get it started. The university would be issued shares of stock in exchange for its investment. The venture would use the art department's website to advertise the company and display the experience of the participating faculty, but the venture would be a separate corporation, independent from the university. The faculty are firm in explaining to the Provost that their intention is not to personally profit from any of these activities but to enhance the prestige of the university as having a dynamic art department.

The Provost has called on you, an assistant university counsel who happens to have an undergraduate degree in art history, to help her sort through the issues that may arise as a consequence of the art department faculty's proposals

1. As you try to consider each of the proposals in its best light, since you are anxious to encourage the newly found entrepreneurial zeal of the art department, you believe the biggest obstacle most likely will be:

    a. issues involving ownership of the artworks
    b. tax-related issues
    c. copyright infringement liability for the university
    d. university conflict of interest issues

2. As to implementing the first proposal, you advise the Provost that:

    a. You believe the art department can digitize images of student artwork since university facilities have been used in developing the student work
    b. You believe the art department can digitize images of student artwork because all art students attend the university on scholarship and hence their artwork is work for hire and owned by the university.
    c. Since the university departmental websites are to be used only for educational purposes, the display of student work as part of university recruiting is improper
    d. You are worried about the origin of some of the student's work

3. The Provost is particularly enthusiastic about the second proposal since it seems to her that it benefits everyone. You send her a memo tactfully advising her that:

    a. This proposal may pose a private benefit problem for the university

b. The university may become liable for breach of warranty if purchasers of the artwork at the auction believe its quality has been misrepresented
c. Since student artwork does not qualify as technology, the university will be required to pay taxes on any royalties the university earns
d. As a 501(c)(3) charitable organization, the only way the university cannot legally auction off student work unless the university owns it.

4. You believe the Provost's reservations about the art department faculty's third proposal are well founded because:

a. As the art faculty's employer, the university will be liable for any damages caused by negligence of the faculty in delivering their appraisals
b. Investing in faculty-owned start-ups jeopardizes the university's tax exempt status
c. The involvement of the art faculty in the start-up company would automatically create a conflict of interest for those faculty and would have to be disclosed in any proposal for funding submitted by the art department to the National Endowment for the Arts (NEA) for funding
d. Being the primary investor in the company would create an institutional conflict of interest for Noteworthy University.

5. As a consequence of the proposals made by the art department faculty, you write a memo to the Provost advising her to:

a. Permit the faculty to proceed with proposal No. 1 so long as the university has registered under the Digital Millennium Copyright Act
b. Permit the faculty to proceed with proposal No. 2 as long as the university's internet service networks are not used for the auction
c. Permit the faculty to proceed with proposal No. 3 provided no art department faculty member has a seat on the company's board of directors
d. None of the above

PART III – Essays (Choose 2 out of 3)

Each essay will be scored on the basis of 0-20 points for a possible combined total of 40 points. Only the first 2 essays you choose will be scored, so answering all three will not be a productive use of your time ☺. Please use your bluebooks and be sure to record the numbers of the essay questions you are answering.

Problem #1

Magnate Industries has approached Professor Nancy Newteacher, a newly-hired assistant professor in the chemical engineering department at Global University, with a proposal to conduct a research project for the Company. Professor Newteacher is unsure of the acceptable terms and conditions for participating in an industrial research program, but knows that Global University is pro-actively seeking greater collaboration with industry. The new professor understands from the program manager at Magnate Industries that when the company provides funding for research and development, it does so under the unwavering principle that "if it pays for it, it owns it". As an intellectual property lawyer at Global, part of your job is the negotiation of funding agreements with industry that are stalled over intellectual property provisions. As soon as Professor Newteacher calls you to inform you of Magnate's position on ownership of the research, you know you will have to convince Magnate to change its position.

Problem #1 Assignment:
Write a letter to the Program Manager at Magnate Industries explaining the university's position on intellectual property ownership. In order to convince Magnate to change its position you know that, at a minimum, you will have to make a legal arguments as well as arguments of principle.

Problem #2

You are an associate in the law firm of Huey, Dewey & Louie, LLC, located in Concord, New Hampshire. One of the reasons you were fortunate enough to land a position at the firm had to do with your stellar performance during your three years at Franklin Pierce Law Center getting your J.D. ***and*** passing the NH bar. The president of Man in the Mountain State University (MMU), a satellite of the UNH system, has contacted the firm because he has become aware at meetings with other university presidents that many of them see their intellectual property policies as being sadly out of date. Because of your background, the firm's senior partner, Ms. Huey, assigns you the task of responding to the concerns the MMU president has about his existing policies. The president tells you that his main areas of concern are:

(a) A 1979 patent policy which favors faculty members owning their inventions and requires any proceeds earned by the university from faculty who voluntarily assign it to be placed in a pool and shared with all faculty in the inventor's department.
(b) The copyright policy that requires faculty to assign all scholarly copyrights to the university as works for hire since the faculty is hired to teach.

(c) A policy that permits faculty to take with them when they leave the university all data and biological materials developed by them while at MMU
(d) A rudimentary insight into the rights and obligations concerning intellectual property that may be gleaned from careful reading and interpretation of the policies, but no written agreement with the faculty

Problem #2 Assignment:

You are to prepare a fairly short memorandum that can be sent to MMU's president analyzing the university's intellectual property policies from the perspective of current law and custom and recommending changes that should be made in them. Your purpose is to bring MMU closer to the normal practices of most universities as you understood them to be from your course in Managing Knowledge Assets in the University – which you thoroughly enjoyed while at Pierce Law ☺. You know you are expected to be responsive to each of the president's concerns.

Problem #3

Developing knowledge asset management systems for universities is a complex task and often poorly accomplished. During this semester, you have been exposed to many of the factors that must be considered in establishing management systems, policies and procedures to address problems commonly encountered by the university as a community of both developers and users of knowledge.

Problem #3 Assignment:

Choosing one of the management areas we have studied this semester, design a road map for managing it that you might use in a presentation to university management or faculty. Examples that you might choose, but are not required to, are material transfer agreements, research policies, intellectual property policies, applicable federal laws, internet issues, liability issues as a user of 3rd party owned intellectual property >>>>>>>

Your road map can be presented in any format you would like (overheads, diagram, flow chart, text) as long as it clearly explains to its intended audience what the management problem is and your solution for remedying it.

END OF EXAM ☺