### **Module 13 Supplementary Materials**

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#### Overview of Intellectual Property

#### What is Intellectual Property?

When we think of property interests, we typically think of a house, a car, and other tangible assets. Intellectual property presents a second type of property interest that is referred to as "non-tangible" or "intangible" property. Intangible property interests fall within one of four primary categories: copyright, patents, trademarks and trade secrets. They are collectively referred to as "intellectual property" because they result from the use of one's intellect, creativity, research and analyses, planning and hard work.

While everyone creates works that qualify as Intellectual Property, much of what we, as individuals, create has little value from a commercial, cultural or historical perspective. On the other hand, Intellectual Property that faculty, research scientists and students create in connection with courses and sponsored research may have commercial and educational value.

#### How is IP Relevant to Universities?

Research universities, such as Maryland, include as one of their primary missions the creation and sharing of Intellectual Property. Because it takes money, equipment, physical facilities, and scientific and creative personnel and support staff to create Intellectual Property, universities promulgate Intellectual Property policies. Those "IP Policies" apply to faculty, students, staff, and visiting researchers to delineate the institution's rights to own, use, and license to third parties IP created by those persons; the rights of creators and inventors in IP they create, and the distribution of revenue that may be earned from IP that is commercialized among the inventors, creators and the institution.

In addition, the good will of universities is often reflected in their trademarks and trademarked goods. A national sports championship for a university increases pride and support for the university and the sale of trademarked t-shirts, hats, jackets and bumper stickers. That revenue, in turn, supports university projects and student scholarships.

#### <u>Legal Bases of Intellectual Property</u>

University IP Policies are based on federal laws that recognize, create, shape and specify how to protect each type of IP. In the US, copyrights and patent rights were first recognized and granted protection under Article I, Section 8 of the Constitution of the United States:

[Congress shall have the power] To promote the Progress of Science and Useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries. . . .

The constitutional provision for copyrights and patents is implemented in Title 17 and 35, respectively of the U.S. Code. States may not enact patent and copyright laws; those forms of intellectual property are within the exclusive jurisdiction of the federal government.

Trade secrets and trademarks, on the other hand, are the subject of both federal and state laws. The Lanham Act is a federal law that governs what can be trademarked and what constitutes trademark infringement. State trademark laws will often mimic the Lanham Act. The owner of a trademark may register that mark with the US Patent and Trademark Office or with the appropriate state office. State laws govern trade secrets.

#### Copyright

#### What is a copyrightable Work?

Original works of authorship that are fixed in a tangible medium of expression are protected by copyright. "Works of authorship" include paintings, architectural designs, novels, poems, drawings, songs and lyrics, choreography, scholarly articles, and similar creative works. A work is fixed in a "tangible medium of expression" when it is written on paper, typed on a computer and saved, audio recorded or audio-video recorded, filmed, etc. A work is "original" if it is more than a documentary copy of an existing work and reflects something not found in existing works. Hard work alone does not render something original and copyrightable. While the first person to develop the yellow pages may have wanted to prevent others from taking advantage of his hard work, yellow pages do not reflect the originality that is necessary to warrant copyright protection.

It is important to keep in mind that copyright does not protect ideas. Copyright protects a specific expression of ideas and only for a limited period of time. For example, while most war movies revolve around common themes of conflict, loss, death, and separation from loved ones, those themes are expressed differently and uniquely from film to film and each film's expression of those themes receives copyright protection.

#### Who owns copyright?

Generally, the person(s) who creates a copyrightable work owns copyright in the work. The work for hire doctrine is an exception to that rule. That doctrine provides that employers own copyright in works created by their employees in the course of their work. In addition, a person who commissions an artist to create a work may hold the copyright if the commission agreement makes that clear.

The University IP Policy follows the work for hire doctrine except with respect to copyrightable works created by faculty under particular circumstances in which circumstances the faculty member retains copyright.

What rights does the copyright owner have?

The copyright law gives the copyright holder exclusive rights to:

- \* Copy the work; e.g., publish
- \* Distribute the work; e.g., sell, license, give away the work
- \* Make new works based on the original work; e.g., translate the work into a different language
- \* Publicly perform the work; e.g., public musical recital
- \* Publicly display the work; e.g., place a painting on a web site and
- \* The right to authorize others to exercise any of those rights.

#### How long does copyright last?

How long copyright lasts depends on when the work was created and what the copyright law provided at the time the work was created. Works created today are protected for 70 years after the death of the creator or 95 years after creation when an employer or corporation owns the copyright. See attached chart.

What does the creator have to do to copyright a work?

Nothing. BUT a copyright owner may register copyright in a work with the US Copyright Office and may include a notice of copyright on the work. Notice and registration make clear who owns the copyright and when the work was created. Registration in particular may enable the owner to obtain higher damages in a case of infringement than would be available if the work was not registered.

Does the owner of copyright have to authorize all uses of his work?

The copyright law provides that it is not an infringement for individuals to reproduce a copyrighted work for personal research, purposes of criticism, news reporting, teaching, scholarship and research. In addition, library employees are allowed to make and distribute one copy of works in their collections if the copy is made without commercial purpose and contains a notice of copyright and to make several copies of works that are scarce or damaged for preservation and security. Individuals who want to copy, distribute, perform, or make derivative works in other situations should obtain the written permission of the owner of copyright.

#### Patents and Inventions

Inventions are discoveries that take the form of processes, machines, composition of matter or ingredients, manufacturing objects, physical appearances of objects and new plants that can be asexually reproduced. Inventions may be protected by one of three types of patents:

## Utility Patents cover the useful or working features of a mechanical, chemical or electrical invention and apply to

- Processes, actions or a series of actions performed on a subject to transform it (e.g., computer software);
- Machines;
- Manufacturing objects; and
- Material compositions (e.g, combining two or more ingredients to produce a new and homogeneous substance)
- ₩ Design Patents (35 U.S.C. §171) cover the physical appearance or ornamental design of an article.
- ## Plant patents cover discoveries of distinct and new varieties of plants that are asexually reproduced.

#### What qualifies for patent protection?

To qualify for patent protection, an invention must fall within one of the categories listed above, and be

- Useful (e.g., exhibit practical applications of formulae or equations, produce useful, concrete, tangible results)
- Novel (e.g., not offered for sale and not in use or published for more than one vear)
- Unobvious (not evident in already existing inventions, articles, etc. and not apparent to someone of average competence in the relevant area of technology)

#### Who owns patent rights?

Under US patent law, only the original inventor or his/her assignee can apply for a patent. As a practical matter, however, companies and universities require their employees to assign to the companies and universities all rights in inventions employees create in the scope of their work (and often outside and unrelated to the scope of their employment). This means that the employer files for inventions created by its employees and identifies its employees as the inventors.

#### The Bayh-Dole Act

The Bayh-Dole Act requires that university employees who create inventions with federal funding assign rights in those inventions to their employing university.

As a result of Bayh-Dole and policy considerations, the UM Policy on Intellectual Property requires University inventors to assign their rights in inventions they develop to the University under specific circumstances.

#### Who is an inventor?

A person who makes creative contributions to the original idea or key characteristics of an invention is an inventor. A person who contributes labor or follows directions to do a, b, or c, but does not provide creative input is not an inventor.

When more than one person claims patent rights in a particular invention, the person who is found, under US law, to have been the first to invent will acquire the patent

rights to the invention. The date of first invention is determined by the date the invention was:

- \*\* Conceived or formulated in the inventor's mind in enough detail that someone knowledgeable in the field could practice the invention to practice without undue experimentation or research; and
- Actually reduced to practice; i.e., physically constructed and tested to determine it is
  works as contemplated or constructively reduced to practice by the filing of a patent
  application.

It is imperative for inventors to keep a detailed log or diary of all actions h/s has taken to support a particular date of conception and reduction to practice.

What rights does the patent holder have?

If the US Patent Office grants a patent for a particular invention, the holder of the patent acquires a right to exclude others from making, using or selling the invention that is covered by the patent in the US for a limited period of time. Utility and plant patents last for 20 years from the date of filing. Design patents last for 14 years from the date the design patent is issued.

The owner of a patent may not be able to apply or use his patent, however, if the invention requires using another party's patent to operate. The owner will have to obtain a license from that other patent owner in order to practice h/h patent.

#### Trademarks

A trademark or service mark is a name, design, seal, insignia, or other symbol that an entity uses to identify and distinguish itself and its goods and services from those of another entity, or to indicate to the public its authorization, sponsorship, or affiliation with the provider of goods or services.

Are there limits on what can be used as a trademark?

In order to qualify for trademark protection, the name or symbol must be in use in commerce to represent a particular good or service and it may not be confusingly similar to a mark already in use to represent a similar good or service. In addition, certain material cannot be trademarked; e.g., the US or state flags.

How does a mark become trademarked?

A mark is "trademarked" as soon as long as it is actually used to represent a good or service to the public. However, the owner of a trademark may want to obtain stronger protection for the mark by seeking a federal registration for the mark. Federal registration provides benefits that are otherwise not available in the case of infringement.

The owner of trademark that is registered with the US Patent and Trademark Office may signify that registration by including ® in uses of its mark. The owner of a trademark that is not registered with the federal government may use the symbol TM to publicize it is claiming trademark rights.

What rights does the owner of trademark receive?

The owner of a trademark has the right to prevent others from using that trademark or a similar name or image in connection with goods or services similar to those with which the owner uses its trademark. Having that right enables the owner to prevent others from taking advantage of the good will associate with the owner's trademark and protect the public from being misled or confused about the source of particular goods and services.

The University of Maryland's trademarks and guidelines for using and licensing its marks are available at <a href="http://www.trademarks.umd.edu/guidelines/">http://www.trademarks.umd.edu/guidelines/</a>.

#### **Trade Secrets**

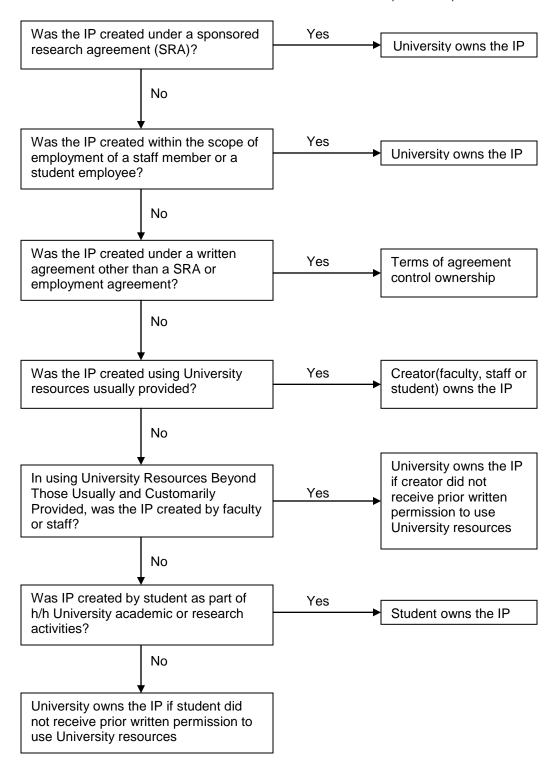
What is a trade secret?

A trade secret is any information, ideas or tangible content that is not generally known to the public or within a particular trade or business and that has value because it is not known. Any information that a company contends has value as a result of not being known can qualify as a trade secret. Trade secrets are governed by state law, which varies from state to state.

How are trade secrets protected?

The owner of a trade secret protects it by ensuring it does not become public. Nondisclosure agreements allow the owner of a trade secret to share it with others provided the recipient agrees to maintain the confidentiality of the information. Trade secret law prevents persons who have legal access to the information from disclosing it to others who don't have a right to know the information. Protection lasts as long as the information remains secret; i.e., is not disclosed or is not learned or discovered by someone else who makes it public.

## GENERAL RULES GOVERNING OF OWNERSHIP OF INTELLECTUAL PROPERTY CREATED BY UNIVERSITY FACULTY, STAFF, STUDENTS



<sup>\*</sup> For every rule, exceptions may be made.

# BASIC FORMS OF INTELLECTUAL PROPERTY SIMILARITIES AND DIFFERENCES

	PATENTS	COPYRIGHT	TRADE MARKS
Legal Basis	Constitution gives authority to Congress to protect patents	Constitution gives authority to Congress to protect writings	No Constitutional authority. Federal law is based on power of Congress to regulate interstate commerce
What is protected	Utility patent covers functional features of process, product, machine, or composition of matter (including software); Design patent protects ornamental designs for manufactured goods.	Protects tangible expression and communication of ideas—not the ideas.	Protects symbols -words, names, sounds, smells, trade dress or shape
Underlying policy	Encourage investment in new technology and discoveries	Encourage creativity	Prevent consumer confusion
Criteria	Must be "new and useful" as judged by subject matter, utility, novelty, and non-obviousness	Originality, creativity, fixed in a tangible form	Must be used to identify goods or services; not generic (e.g., cannot trademark geographic terms)
How are rights obtained?	Federal registration (can take up to 2 years)	Rights automatic upon creation. Formal registration of copyright with Copyright Office provides benefits in litigation.	Common law rights automatic upon use in commerce. Federal registration provides greater geographic rights and benefits in the event of infringement. Federal registration can take up to 2 or more years.
Duration of Protection ◊	20 years from date application is filed	Life +70 individual author/the lesser of 95 yrs from publication or 120 from creation for works for hire and anonymous works	Have to file an affidavit of use and application for renewal every 10 years for federal reg.; otherwise, protection is coextensive with use

 $\Diamond$ The duration of copyright and patent protection has changed over time. The time listed above applies to copyrights and patents created or granted today.