



Technology Transfer and Commercialization Student Guide

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Introduction

Universities are major sources of fundamental knowledge underlying the new products and processes essential to economic competitiveness. In this context, facilitating the process whereby university creative and scholarly works may be put to public use and/or commercial application (i.e., "technology transfer") is an important aspect of the service mission of a public university. In turn, the protection of concepts with commercial potential (inventions or creations) via patents and copyrights is an essential aspect of the technology transfer process. Without such protection, companies are unlikely to invest the funds required to commercialize new technology.

This document is intended to serve as a practical guide – a road map – on technology transfer as it relates to academic work of PASSHE University students, which include:

- Undergraduate, graduate, and post-graduate students
- Full-time and part-time students

Staff and student employees, emeritus/retired faculty, visiting scholars/scientists, contract employees, consultants and others engaged in research at the University should consult the [Non-Faculty Technology Transfer Guide](#). Tenured, probationary non-tenured, and non-tenure track faculty should consult the [Faculty Technology Transfer Guide](#).

- Goals
- Inventions Overview

Goals

The goal of preparing and distributing these guidelines is fourfold:

- Assist students in the commercialization of their products
- Make inventions and creations resulting from the efforts of students available to industry and the public on an effective and nondiscriminatory basis
- Obtain revenue for students who invent and create
- Define the rights and responsibilities of all parties involved in development of Technology Transfer and Commercialization at PASSHE Universities

Inasmuch as PASSHE only recently initiated a program to enhance its stewardship of its patent and related copyright activities, the policies and procedures cited herein are subject to ongoing review and possible future modification.

This document provides guidance for both the ordinary and the extra-ordinary academic situations, particularly for sponsorship, case studies, theses and dissertations.

Inventions Overview

Invention(s) with commercial potential may involve novel machines, devices, compositions of matter (compounds, mixtures, genetically engineered cells, plants, animals), genetic forms, software and computer systems, production processes, plant varieties, etc. Such inventions, and the patents and the copyrightable materials related to inventions that reserve rights to them, are the type of *Intellectual Property* that is the focus of these guidelines.

Student Invention Ownership

The advent of heightened interest around the issue of ownership of the *Intellectual Property* rights of what is created, invented or discovered by students has created a much more complex situation on the part of students, faculty and providers of sponsorship and case studies.

PASSHE Universities respect the long-standing tradition that students own their academic work. In general, any Intellectual Property (such as theses and dissertations, inventions, discoveries, creations and new technologies) conceived or first reduced to practice by a student at a PASSHE University as a work product (including homework assignments, laboratory experiments, special and independent study projects) of a “for credit” course will be owned by the student. Generally, undergraduate and graduate students own any Intellectual Property that they create through enrollment in courses for academic credit. The University does not claim ownership of such Intellectual Property unless one or more of the following exceptions apply:

Note: For the technology transfer procedures associated with each of the following scenarios, see *Student Technology Transfer Procedures*.

- **Material Support** – When the University provides Material Support beyond the standard for student research, including academic credit and non-credit work, Intellectual Property will be owned by the University.
- **Faculty Collaboration** – When there is collaboration between a student and **University faculty** or staff to create works as part of research or development activities, Intellectual Property will be owned by the University.
- **Special Situations** – Special Situations may occur in certain courses or special projects where students are presented with the opportunity to participate in projects or activities in which the ownership of any resulting Intellectual Property must be assigned either to the University or to a sponsoring entity as a condition of the student's participation.

Note: Special Student Intellectual Property Agreements are available to deal with all of the situations requiring assignment, or notification of the sponsors of the research.

When a student who is employed by the University creates Intellectual Property as part of their **work duties**, Intellectual Property will be owned by the University and will be subject to University policies and procedures governing Intellectual Property and patents. **University employees** include students working for pay, compensation, or tuition waivers through sponsored projects, work-study, work-for-hire arrangements or other classifications. Students acting as employees are covered by the requirements that are applicable to other University employees and outlined in the [Non-Faculty Technology Transfer Guide](#).

When the University owns the Intellectual Property, it may pursue protection and commercialization opportunities for the Intellectual Property and the **Inventor**. University ownership of Intellectual Property does not necessarily preclude students from receiving royalties resulting from commercialization of the work. In fact, in many cases University ownership can facilitate generation of royalties, license fees or other income. See [Non-Faculty Technology Transfer Guide](#) for more information on the commercialization process.

Student Considerations

- Creations during Courses
- Comparing Graduate and Undergraduate Students
- Undergraduate Theses
- Graduate Theses
- Unpaid Work Experiences
- Internships
- Artistic Creations
- Case-Based, Company-Driven Solutions
- Faculty Contributions and/or Collaboration
- Publishing
- Student Inventor Benefits
- Conflict of Interest with Faculty
- University Grant Awards

Creations during Courses

What if the student makes an invention in a course they are taking?

If any student, graduate or undergraduate, taking any course for credit develops **Intellectual Property**, the Intellectual Property belongs to the student and an Intellectual Property assignment agreement is not required (no matter who paid for the course).

Comparing Graduate and Undergraduate Students

Are graduate students different from undergraduate students?

If graduate or undergraduate students are doing any research (including but not limited to research for *Graduate Thesis* or *Dissertation* preparation), and do not receive *Material Support* from the University or involve *Faculty Collaboration*, then the *Intellectual Property* belongs to the student.

Undergraduate Theses

What about undergraduate theses?

For required senior thesis, or seminar with a research component, the student must have available an option that allows them to retain their *Intellectual Property*. That is, an option that allows them to complete the work without *Material Support* or *Faculty Collaboration*. This may require a change in topic.

Graduate Theses

What about graduate theses or dissertations?

If the outcome of a *Graduate Thesis* or *Dissertation* may possibly be a *Patentable Invention* and the student receives *Material Support* from the University, then the *Intellectual Property* is owned by the University. When a *Patentable Invention* is a possibility in this situation, the student must sign a *Student Intellectual Property University Agreement* at the first meeting of the project or course or as soon as the need becomes apparent.

Unpaid Work Experiences

What if a student works "for free" in a University laboratory to gain experience?

If students are working for free – receiving no pay or compensation – in a University lab or research facility, the **Intellectual Property** will be owned by the student. However, the student cannot be:

- Receiving **Material Support** from the University
- Collaborating with faculty (**Faculty Collaboration**)
- Participating in **Special Situations** in a for-credit course

In those exceptions, the Intellectual Property belongs to the University and the student must sign a **Student Intellectual Property University Agreement**.

Note: For the technology transfer procedures associated with each of the following scenarios, see Student Technology Transfer Procedures.

Internships

What about summer students or student interns, both at a PASSHE University and at other institutions?

Summer students and student interns at the PASSHE University and PASSHE students at other institutions must abide by the policies of the host institutions, including signing any appropriate **Intellectual Property** agreement for the host institution.

Artistic Creations

What about artistic works created by students?

Artistic work, including poetry, sculpture, graphic arts, painting, etc., created as part of academic required coursework, all rights rest with the creator. When there is some specific agreement/contract which designates the students' effort as a **Work for Hire**, the **Intellectual Property** belongs to the University or to a sponsor.

Case-Based, Company-Driven Solutions

What about special situations where students develop design changes or problem solving in case-based learning on problems submitted by companies?

If students develop **Intellectual Property** while solving a problem in a "for credit" course using case-based learning based on externally-submitted (company, institute, or non-profit) problems:

- The Intellectual Property belongs to the students if there is no agreement to the contrary
- If sponsors want to retain Intellectual Property rights, they need to have students assign their Intellectual Property rights by signing the **Student Intellectual Property Company Agreement** at the first meeting of the project or course.
- Students can choose to participate in projects requiring them to assign their rights
- Student must have a "non assignment" option, which allows them to complete alternate assignments for equal credit.
- Forms are available to deal with all of the situations requiring assignment, or notification of the sponsors of the research. For more detailed guidance, see **Student Intellectual Property Agreements**.
- Faculty members have the responsibility to collect the appropriate Intellectual Property Agreement signed by the student at the first meeting of the project or course.

Faculty Contributions and/or Collaboration

What about situations where the original idea for a student thesis or dissertation comes from the faculty?

Situations can arise where a faculty and a student are co-authors or co-inventors. In a case of co-inventorship, the faculty member and student will each be guided individually by the set of guidelines that apply to them. It's conceivable that the student will be required to assign his/her share of ownership rights, but the faculty may be allowed to retain their share of ownership. It is difficult to commercialize such an invention, so the University will explore options to simplify the matter. The University will have the option to return the student's rights to the student, thus allowing the faculty and student to move forward privately, without University support for patent costs. Another option is for the faculty to agree to voluntarily assign ownership to the University so that the University may submit the invention disclosure to the Technology Transfer Office for evaluation.

Publishing

What about publishing?

Any public disclosure, such as a publication, presentation, thesis or thesis defense, has an impact on patenting. By keeping the **University Authorized Officials** informed of upcoming public disclosures, the University can formulate a patent strategy that minimally impacts publications and presentations. Students retain the right to publish and present, unless limited by sponsorship agreements. Institutions' and academic programs' policies /guidelines for completion of theses and dissertations should address how public defense, open presentation, and publication of theses and dissertations will be reconciled with the need to safeguard against risk of disclosure or loss of protection of patentable concepts and materials.

Student Inventor Benefits

How can a student Inventor benefit from transferring ownership to the University?

When the University receives an assignment of ownership from an **Inventor**, the University can take steps to file for patent protection of the invention, paying all the filing and legal costs of doing so. Initial legal costs can range from \$8,000 to \$15,000. Total costs can range up to \$25,000. The Universities have access to attorneys who specialize in patent law. The University can also provide the services of experienced Technology Licensing Officers who assess the invention for its commercial potential, and seek out businesses, both regionally and nationally, that may buy licenses to use the invention, thus generating income for both the Inventor and the University. The University can take future legal action to ensure no one uses the patented invention without permission and otherwise protects the value of the invention. Patents require payment of annual maintenance fees, which the University will assume. The Technology Licensing Officers monitor all licensing agreements to ensure license fee payments are consistent with agreements and actual product sales or profitability. License agreements signed by the University will typically allow access to examine the licensee's financial records to ensure the product's sales and profitability are properly represented to the University and the Inventor.

After assignment, an Inventor can remain an active participant in commercialization efforts, as the Technology Licensing Officers will follow-up on all leads provided by the Inventor. It is possible that the University can secure additional research funds from the licensees under sponsored research agreements.

In summary, an inventor can only realize income from their invention if it is properly protected through the filing and issuance of a patent, and if it is successfully marketed to business. All revenues are shared with the inventors. These services are provided by the University at no cost to the Inventor, when the invention is assigned to the University.

Conflict of Interest with Faculty

What if I, as a student, feel my faculty advisor has a conflict of interest in requesting assignments from me and my classmates?

In the event of a conflict with a faculty advisor, a student should consult with the designated *University Authorized Officials*.

University Grant Awards

The University makes grant awards to students who apply for research funding. The awards are small ~\$500. The recipient students receive funding, use lab space and use faculty's time.

Is this a level of resources not normally available or would it be considered normally available since anyone can apply?

Yes, this is an example of *Material Support* beyond the standard because it is a grant that very few students receive and because the students work closely with faculty in a way not normally available to all students.

Student Technology Transfer Procedures

The University does not claim ownership of *Intellectual Property* unless one or more of the following exceptions, each of which requiring that specific technology transfer procedures be completed, apply:

- *Material Support*
- *Faculty Collaboration*
- *Special Situations*
- *Student Employment*

Material Support

Student receives Material Support from the University, including material support for work for academic credit.

1. Student receives approval or finalizes arrangements with academic department or faculty for **Material Support** beyond the standard.
2. Approving authority (i.e. the department chair or director, faculty advisor) provides student with the [Student Technology Transfer Guide](#) and secures student's signature on a **Student Intellectual Property University Agreement**.
3. Approving authority forwards the Student's forms to the **University Authorized Officials** or designee.
4. Student participates in research and makes or contributes to a discovery or invention.
5. Student completes **Technology Disclosure** or signs Principal Investigator's disclosure as a "co-Inventor".
 - After-the- fact determination of "Beyond the Standard" may occur frequently. When a student is named as an **Inventor** on a disclosure it is imperative to determine if they are a PASSHE Employee or a PASSHE student who received **Material Support** beyond the standard. The correct agreements are then secured from the student before proceeding.
6. University (using PSRF services) evaluates the invention for commercial potential and patentability.
7. Student's interest in the invention is assigned to the University or University "releases" to the student.

Faculty Collaboration

Student receives Faculty Collaboration beyond the standard.

1. Student receives approval or finalizes arrangements with academic department or faculty for **Faculty Collaboration** beyond the standard.
2. Approving authority (i.e. the department chair or director, faculty advisor) provides student with the [Student Technology Transfer Guide](#) and secures student's signature on a **Student Intellectual Property University Agreement**.
3. Approving authority forwards the Students forms to the **University Authorized Officials** or designee.
4. Student participates in research and makes or contributes to a discovery or invention.
5. Student completes **Technology Disclosure** or signs Principal Investigator's disclosure as a "co-Inventor".
 - After-the- fact determination of "Beyond the Standard" may occur frequently. When a student is named as an inventor on a disclosure it is imperative to determine if they are a PASSHE Employee or a PASSHE student who received **Faculty Collaboration** beyond the standard. The correct agreements are then secured from the student before proceeding.
6. University (using PSRF services) evaluates the invention for commercial potential and patentability.
7. Student's interest in the invention is assigned to the University or University "releases" to the student.

Special Situations

Student participates in a class assignment for credit and the resulting Intellectual Property must be assigned to the University or external sponsor.

1. Instructor secures the Sponsor's signature on [Student Research Sponsorship Acknowledgement](#) and then forwards it to the [University Authorized Officials](#) or designee.
2. Sponsor and University reach agreement on ownership of any [Intellectual Property](#) created by the assignment.
3. Instructor presents the assignment to the class.
4. All students have the right to opt-out of the assignment and to receive other, equivalent, for-credit class work.
5. Students who opt-in for the assignment receive the [Student Technology Transfer Guide](#) and sign the [Student Intellectual Property University Agreement](#) or [Student Intellectual Property Company Agreement](#).
6. Class Instructor collects the [Student Intellectual Property University Agreement](#) or [Student Intellectual Property Company Agreement](#) from all students who opt-in for the assignment.
7. Class Instructors forwards all [Student Intellectual Property Agreements](#) to the University Authorized Officials or designee.
8. Student participates in research and makes or contributes to a discovery or invention.
9. Student(s) completes [Technology Disclosure](#) as a "co-Inventor".
10. University or Sponsor evaluates the invention for commercial potential and patentability. If University has rights of ownership, it can send to PSRF via PASSHE.
11. Student's interest in the invention is assigned to the University or Sponsor, or released to student.

Student Employment

Student employed in research capacity – Student is covered by the [Non-Faculty Technology Transfer Guide](#).

1. Student is hired for a research position. Employment conditions require the student to sign the [Non-Faculty Intellectual Property Agreement](#).
2. Student reports to work.
3. Upon reporting to employment, student signs an acknowledgement of receipt of the [Non-Faculty Technology Transfer Guide](#). Receipt is retained in personnel file. Appointing officer/administrator (e.g. department chair or director) collects the [Non-Faculty Intellectual Property Agreement](#) and then forwards it to *University Authorized Officials* or designee.
4. Student participates in research and makes or contributes to a discovery or invention.
5. Student completes [Technology Disclosure](#) or signs Principal Investigator's disclosure as a "co-Inventor".
6. University (using PSRF services) evaluates the invention for commercial potential and patentability.
7. Student's interest in the invention is assigned to the University or Sponsor, or released to student.

Student Intellectual Property Agreements

Set forth below are rights and responsibilities regarding [Intellectual Property](#) created as a student at the (*insert PASSHE university name*) University of Pennsylvania.

General Rule: Any Intellectual Property (such as undergraduate theses, graduate theses and dissertations, inventions, discoveries, creations and new technologies) conceived or first reduced to practice by a student at the (*insert PASSHE university name*) University of Pennsylvania (“University”) as a work product (including homework assignments, laboratory experiments, special and independent study projects) of a “for credit” course will be owned by the student, with three exceptions. Those exceptions are:

Note: For the technology transfer procedures associated with each of the following scenarios, see [Student Technology Transfer Procedures](#).

- **Faculty Collaboration** – When the student collaborates with faculty or staff beyond the standard to create works as part of research or development activities, including non-credit, unpaid work.
- **Material Support** – When the student receives staff, salary, facility or material support beyond the standard level provided by the University to students, including non-credit work.
- **Special Situations** – In certain courses or special projects where students are presented with the opportunity to participate in projects or activities in which the ownership of any resulting Intellectual Property must be assigned either to the University or to a sponsoring entity as a condition of the student's participation. See [Special Situation Exception Options](#), [Retention and Assignment of Rights in Special Situations](#), and [Acknowledgement by Sponsor](#) for more information.

In the above exceptions, the University will own the Intellectual Property. Faculty advisors supervising students in these situations are responsible for ensuring that students file the [Student Intellectual Property University Agreement](#). It should be signed at the first meeting of the project or course or as soon as the need becomes apparent.

The student owns intellectual Property conceived or first reduced to practice in graduate research or graduate thesis preparation, unless it falls under the exceptions.

Special Situation Exception Options

Situations may occur in certain courses where students are presented with the opportunity to participate in projects or activities in which the ownership of any resulting **Intellectual Property** must be assigned either to the University or to a sponsoring entity (such as a company) as a condition of the student's participation. Students are never obligated to participate in projects or activities that require the assignment of the student's Intellectual Property to the University or to another entity. In these situations, students will always be presented with two options:

- To participate in alternative projects or activities that do not require the student to assign their Intellectual Property
- To participate in projects or activities that require the student to assign their Intellectual Property

The student's grade and/or evaluation of performance in the course will not be affected by the student's decision to participate or not to participate in projects or activities requiring the assignment of the student's Intellectual Property.

Students should understand that the assignment of Intellectual Property is a binding legal agreement and that they have the right to seek independent legal advice at their own expense prior to signing this agreement.

When a sponsor uses student research results, the sponsor is required to sign the **Student Research Sponsorship Acknowledgement** form which acknowledges that:

- The student research results are not warranted by the University
- The sponsor indemnifies the University
- The student research results are not the work of the University

Retention and Assignment of Rights in Special Situations

- If students wish to retain ownership of their **Intellectual Property** and decline to assign their rights to any other entity, no further action is required. However, they do not participate in the special project but in an alternative assignment for equal credit.
- If students agree to assign to the University all rights that they may acquire in inventions, discoveries or rights of patent that are conceived or first actually reduced to practice by them as a result of their participation in the course, they need to complete the **Student Intellectual Property University Agreement**.
- If students agree to assign to the Sponsor all rights that they may acquire in inventions, discoveries or rights of patent that are conceived or first actually reduced to practice by them as a result of their participation in that course, they must complete the **Student Intellectual Property Company Agreement**.

Acknowledgement by Sponsor

Student project results are provided “as is” without any representation or warranties whatsoever, whether express or implied, including, but not necessarily limited to any warranty as to fitness for particular purposes, merchantability, or non-infringement. All research performed is to be done by University students and is not subject to peer review or independent verification of results. The sponsor hereby agrees to indemnify and hold harmless the University, its agents, employees, students and volunteers for any and all harm, loss, liability, claims, or damages which may arise from your use of the student project results in whatever manner or form.

The student project results are not the work of the University and any references either internally or to third parties shall clearly identify the source of the student project results as student research performed at the University without subsequent independent evaluation.

The sponsor is required to sign the [Student Research Sponsorship Acknowledgement](#) form. Faculty are required to collect the [Student Intellectual Property University Agreement](#) form or the [Student Intellectual Property Company Agreement](#) form and the [Student Research Sponsorship Acknowledgement](#) form at the first meeting of the class or project, or as soon as the need becomes apparent.

If a student believes the faculty advisor has a conflict of interest in implementing these procedures, the student should consult with the [University Authorized Official \(AO\)](#).

Forms and Agreements

- [Technology Disclosure](#)
- [Software Disclosure](#)
- [Student Intellectual Property University Agreement](#)
- [Student Intellectual Property Company Agreement](#)
- [Student Research Sponsorship Acknowledgement](#)

Technology Disclosure

The Technology Disclosure establishes a legal record of the invention while helping to facilitate the assessment and management of the technology. After reviewing the disclosure form, the Technology Transfer Office will contact the discloser(s)/inventor(s) to review the technology and discuss possible protection and commercialization strategies.

- See [Technology Disclosure Form](#).

Software Disclosure

Use the Software Disclosure form to disclose software inventions to the [University Authorized Officials](#). Prompt disclosure allows the University to secure [Intellectual Property](#) rights as appropriate and to fulfill obligations to external sponsors of research.

- See [Software Disclosure](#).

Student Intellectual Property University Agreement

The Student Intellectual Property Agreement with University is required to be signed and collected by the faculty advisor/instructor at the start of any University project or activity that qualifies for the exemptions, in which case the University will own the Intellectual Property:

Note: For the technology transfer procedures associated with the exception scenarios, see [Student Technology Transfer Procedures](#).

- See [Student Intellectual Property Agreement with the University](#).

Student Intellectual Property Company Agreement

The Student Intellectual Property Agreement with Company Sponsor is required to be signed and collected by the faculty advisor/instructor at the start of any Company-Sponsored project or activity that qualifies for the exemptions, in which case the Sponsor will own the Intellectual Property:

Note: For the technology transfer procedures associated with the exception scenarios, see [Student Technology Transfer Procedures](#).

- See [Student Intellectual Property Agreement with the Company Sponsor](#).

Student Research Sponsorship Acknowledgement

The Student Research Sponsorship Acknowledgement must be signed by the sponsor in cases where the student participates in a class assignment for credit and the resulting Intellectual Property must be assigned to the external sponsor.

- See [Student Research Sponsorship Acknowledgement](#).

Definitions

Bayh-Dole Act

Enacted on December 12, 1980 The Patent & Trademark Act (Public Law 96-517) created a uniform patent policy among Federal agencies that fund research. Bayh-Dole enables small businesses and non-profit organizations, including universities, to retain title to materials and products they invent under federal funding. Subsequent amendments created uniform licensing guidelines and expanded the law to include all federally funded contractors (Public Law 98-620). The implementing regulations for Bayh-Dole are published at 37 CFR Part 401.

Commissioned work

Commissioned works include, but are not limited to, courseware development specifically assigned or required as part of regular teaching duties.

Copyright

A form of protection that prevents copying of “original works of authorship” that is tangible. These works include literary works, musical works, dramatic works, sculptural works, architectural works, pantomimes, choreography, pictorials, graphics, motion pictures, sound recording and software.

Courseware

A complete substantially computer-based package of content, assessment materials, and structure for interaction that permits a course to be taught without requiring physical access to a student.

Dissertation

A dissertation is an extended written treatise, in which the doctoral student expounds original research results and interpretations. The dissertation is an essay that demonstrates excellence in scholarly ability, intellectual acuity, and erudition. The dissertation stands as the culmination of the degree of Doctor of Philosophy (Ph.D.), Doctor of Education (D.Ed.), or Doctor of Psychology in Clinical Psychology (Psy.D.). A dissertation is required of all doctoral candidates and must demonstrate the candidate's mastery of his/her research and reflect the results of an original investigation in the principal field of study. The goal should be to make a definite original contribution to knowledge in the field. To qualify as a thesis or dissertation, the document typically:

- Must be demonstrably original work
- Must be the student's own work
- Must never have been previously submitted for college credit or used for any other academic purpose
- Must never have been published in its entirety (including on the Internet)
- Must demonstrate mastery of written, standard American English
- The topic must be sufficiently important to be approved by the thesis/dissertation committee, and the methodology must be efficacious and acceptable to the same committee

Faculty Collaboration

A student and faculty working together that goes beyond the standard for an undergraduate or graduate student at a PASSHE University. The term must be defined in comparison to the usual level of support provided to all students within a department or discipline. The definition may vary from one discipline to another. The determination must be made by the department or division head, subject to the affirmation of the dean. Collaboration may take the form of a student assisting faculty with research or creative activities. It may take the form of students and faculty working together to develop an exhibit or production of works of art, outside of for-credit courses. It does not include independent study courses taken for credit. It does not include work for pay or other compensation under the guidance of a faculty or staff person. Should a question arise about whether collaboration is beyond the standard, a written statement will be obtained from the unit leader (department or division head, dean, director, etc.) concerning the level of collaboration.

Graduate Thesis

A graduate thesis is a scholarly piece of writing in which a graduate student is expected to show a command of the relevant scholarship in his/her field and contribute to that scholarship. It should confront an unresolved question and present a resolution. The thesis stands as the culmination of a research master's or clinical doctoral degree.

Independent Study

An independent study is a course of study, for credit, designed by a graduate or undergraduate student and a sponsoring faculty member. The student works independently on the project and material throughout the term, consulting with the faculty member on a periodic basis.

Individual's "own time"

Time other than that devoted to normal and assigned functions in teaching, university service, direction and conduct of research on university premises and utilizing University facilities.

Intellectual Property

Term used to describe the patents, copyrights, mask work protection, trade secrets, and plant variety protection certificates that cover or pertain to inventions.

Intellectual Property Agreement

An agreement between the University and University personnel which is signed prior to the start of research or a creative project or at the time of appointment of certain individuals (as outlined in the agreement) which outline specific duties and responsibilities in the event of a discovery or invention and binds the individual to follow these guidelines. See the [Student Intellectual Property University Agreement](#) or the [Student Intellectual Property Company Agreement](#).

Invention(s)

Any technical contribution, discovery, process, method, use, design, improvement, modification or combinations thereof, conceived of and reduced to practice during the course of research carried out for or at the University. Includes computer software, novel machines, devices, compositions of matter (compounds, mixtures, genetically engineered cells, plants or animals), genetic forms, mask works, production processes, production methods, plant varieties, etc. that did not exist before.

For an invention to qualify for a U.S. patent it must be novel, non-obvious, and useful. It can be: a device, a manufacturable article, a machine, a composition of matter, a process or method, or a new, useful improvement.

Invention and Copyright Assignment Agreement

An agreement between the University and the faculty, staff or student inventor(s) or developer(s) which allocates between the University and the inventor, the title, ownership and rights to the invention or materials that results from research carried out at or for the University in exchange for the monetary considerations.

Inventor

One who conceives and either personally or through someone else reduces the invention to practice. The conception of an invention is complete if the inventor is able to make a disclosure that would enable someone skilled in the art to make the invention without extensive research or experimentation. Someone who constructs the invention based on the inventor's conception or who merely assists in the reduction to practice of an invention is not an inventor. Failure to name the correct inventors can result in invalidation of the patent. It is the obligation of all inventors to adequately document their inventive contributions in laboratory notebooks. Inventorship is distinct from authorship and ownership.

Material Support

Material support for student academic research will mean that for the project that produced the Intellectual Property the creator received staff, salary or facility support beyond the standard resources provided to a student in the University. The term must be defined in comparison to the usual level of support provided to all students within a department or discipline. The definition may vary from one discipline to another. The determination must be made by the department or division head, subject to the affirmation of the dean. Should a question arise about whether support is beyond the standard, a written statement will be obtained from the unit leader (department or division head, dean, director, etc.) concerning the level of use of PASSHE University support and facilities.

Material Transfer Agreements

Mechanisms for obtaining needed research materials, including but not limited to biological material. They are frequently required when a provider of material or data deems it necessary in the following circumstances:

- The material and/or information is proprietary;
- The material or information is being maintained as a trade secret;
- The material is infectious, hazardous or subject to special regulations;
- The provider is concerned about potential liability; and/or
- The provider wishes to obtain rights to the results of the research in which the material or information is to be used (COGR, 2003)

Only a **University Authorized Official (AO)** can sign a Material Transfer Agreement after legal review.

Materials

Those items which arise from work performed by faculty, staff or students that can lead to copyright protection and could include course work, books, films, recordings, grants, software and other publications developed outside of those needed for individual classroom instruction as defined in Article 39, Paragraph B. 2. of the APSCUF Collective Bargaining Agreement. This should not be confused with research materials described in Material Transfer Agreements.

Net Income

As defined in the APSCUF CBA, is the total income generated by the licensing, sale, distribution or commercialization of an invention, less the direct and indirect expenses incurred by the University for:

- Substantial use of University resources/support/facilities.
- The sale or licensing of the invention.
- The production, development, maintenance, and distribution of the patent or copyright and/or invention.
- Litigation and other steps to obtain, maintain, enforce or defend patent or copyright.

Other Covered Individuals

Individuals who are required to sign the Intellectual Property Agreement, but are not employees or students of the University are considered "Other Covered Individuals." This includes emeritus/retired faculty, visiting scholars/scientists, contract employees, consultants and others engaged in research at the University who are not employees or students.

Patent

A grant to the owner or assignee of the patent the right to exclude others from making, using or selling the invention for a term of twenty years from the date of the patent application. Provisional patents are typically filed as a "placeholder" for one year; non-provisional patents are examined and patents issued by the US Patent Office.

Patentable Invention

A novel, non-obvious, and useful discovery that excludes printed matter and pure algorithms, but includes:

- device
- manufacturable article
- machine
- composition of matter
- process or method
- new, useful improvement

Special Situations

Projects or activities that are part of a for-credit course where students are presented with the opportunity to participate, in which the ownership of any resulting Intellectual Property must be assigned either to the University or to a sponsoring entity (such as a company) as a condition of the student's participation.

Sponsored Research

Research and creative activities or service projects funded by Federal and non-Federal agencies and organizations.

Substantial Use of Institutional Resources

Substantial use of institutional resources is a provision in the APSCUF CBA and only applies to faculty of PASSHE Universities. The term has no applicability to other employees or to students or to non-employees. It means that for the project that produced the *Intellectual Property* the faculty member/creator received staff, salary or material support beyond that normally provided to the creator (i.e. faculty) at the University. For operational purposes it is defined identically to that of Paragraph C. 4. of Article 39 of the APSCUF CBA. It is reproduced here for completeness.

Use of University resources/support/facilities will be considered substantial if the use of such resources/support/facilities is important to the creation of *Intellectual Property* and the University aid exceeds a cumulative total of \$40,000 per project, for any combination of the items listed below over a three-year period. Examples of such support items include but are not limited to the following:

- Alternate assignment, and/or special assignment for a specific project or task.
- Use of University funds designated for a specific project or task.
- Use of University-owned, administered, leased equipment, facilities, materials or technological information.
- Support provided by other public or private organizations when it is arranged, administered, or controlled by the University.
- Assistance of one or more University employees or students, or others who are assigned to the project or task.
- Cash investments or cash purchases.

Examples of such support do not include the following:

- Mere incidental use of University resources/support/facilities.
- Normal academic use of facilities commonly available to faculty members, staff, or the public, such as libraries, offices, office equipment, or internet services.
- Use of university sabbatical leave unless there was substantial use of University resources/support/facilities as defined above.

Technology transfer

The process whereby University creative and scholarly works may be put to public use and/or commercial application.

TLO

Technology Licensing Officers (TLO) evaluate inventions for commercialization potential and negotiates licensing agreements, among other duties.

TTO

PASSHE Technology Transfer Office, system-wide, central clearing-house for patent management for all PASSHE Universities. The TTO engages the services of Technology Licensing Offices and outside legal counsel.

Undergraduate Thesis

A substantial work of undergraduate student research designed to provide a culminating experience that allows students to explore scientific areas of their most passionate interests, engage in the process of discovery, and make a creative contribution in their areas of interest and expertise, supervised by a faculty thesis mentor. If completed as part of degree requirements, the student owns the thesis.

University employees

Part-time and full-time faculty, part-time and full-time staff and administrators, paid or otherwise compensated undergraduate and graduate students and others with a defined relation to the University. Students who receive a tuition waiver conditioned on work or service hours are considered University employees for purposes of this policy.

University Authorized Official (AO)

The individual at a given University who is authorized to handle PASSHE Technology Transfer and Commercialization issues. See PASSHE University Authorized Officials.

University personnel

University employees and other covered individuals including:

- Part-time and full-time faculty
- Part-time and full-time staff and administrators
- Fellows and visiting scholars/scientists
- Contract employees
- Consultants
- Paid or otherwise compensated undergraduate and graduate students – Students who receive a tuition waiver conditioned on work or service hours are considered University employees or personnel for purposes of this policy, although students who receive an unconditioned tuition waiver are NOT included in the definition
- Others engaged in research at the University who are not employees or students

University faculty

PASSHE University faculty, which includes:

- Tenured faculty
- Probationary non-tenured faculty
- Non-tenure track faculty

University facilities

Any facility available to the *Inventor* as a direct result of the inventor's affiliation with the PASSHE University, or any facility available under the University's policies on co-operative use of research equipment, or policy on use of facilities by emerging technology enterprises, and which would not otherwise be available to a non-PASSHE affiliated individual.

University-sponsored Research

Research covered under an official University research contract and any research like activity or other creative endeavor carried out by employees in the course of their official duties or responsibilities, or any activity that makes substantial use of institutional resources.

University-supported Research

Research and creative endeavors supported by the PASSHE University carried out by employees in the course of their official duties or responsibilities, or any student research and creative endeavors that receives material support from the PASSHE University.

Work for Hire

The U.S. Copyright Act defines a “work made for hire” as (1) a work prepared by an employee within the scope of his her employment; or (2) a work specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire. For the purpose of the foregoing sentence, a “supplementary work” is a work prepared for publication as a secondary adjunct to a work by another author for the purpose of introducing, concluding, illustrating, explaining, revising, commenting upon, or assisting in the use of the other work, such as forewords, afterwords, pictorial illustrations, maps, charts, tables, editorial notes, musical arrangements, answer material for tests, bibliographies, appendixes, and indexes, and an “instructional text” is a literary, pictorial, or graphic work prepared for publication and with the purpose of use in systematic instructional activities. The CBA further clarifies that the creator is compensated by PASSHE. An operational definition for students:

- Work conducted by faculty, employees or students as part of the scope of employment
- Under campus consulting, extra service or technical assistance arrangements regardless of the form of compensation

An operational definition for faculty:

- Work commissioned by the University and created by faculty under campus consulting
- Extra service or technical assistance agreements regardless of compensation
- Work completed by non-faculty employees and personnel as part of employment

Ownership and creative control of works made for hire by PASSHE faculty will be governed by an agreement between the University and the faculty member made prior to the commencement of the work.¹

¹ APSCUF CBA, Art. 39.B.9

University Authorized Officials

PASSHE University	University Authorized Official	Designee to confirm Substantial Use	Official to sign License Agreements	Senior Sponsored Research Administrator
Bloomsburg	Assistant VP/ Dean of Graduate Studies and Research	Dean of the College of Science and Technology	Director of Sponsored Programs and Research	Assistant VP/Dean of Graduate Studies and Research
California	Provost	Dean of the Eberly College of Science & Technology	VP for Administration and Finance	Director of Grants and Contracts
Cheyney	Provost/VP Academic Affairs or President	Provost/VP Academic Affairs	VP Finance and Administration	VP Institutional Advancement
Clarion	Provost/VP for Academic Affairs	Provost/VP for Academic Affairs	VP for Finance and Administration	Asst VPAA/Research and Graduate Studies
East Stroudsburg	President	Provost	VP Finance & Administration	Director Office of Sponsored Projects and Research
Edinboro	President or Provost	Dean, School of Science, Management & Technology	VP for Finance and Administration	Dean of Graduate Studies and Research
Indiana	Provost	VP for Research & Dean of Graduate Studies	VP for Administration and Finance	VP for Research & Dean of Graduate Studies

Kutztown	Provost	Vice Provost	VP for Administration & Finance	Director, Office of Grants & Sponsored Projects
Lock Haven	Provost	Vice President for Finance, Administration and Technology	President	Dean of Library Services and Associate VP of Academic Affairs
Mansfield	Provost	Dean of Faculty	VP Finance and Administration	Director of Grants
Millersville	Assistant VP of Development	Dean of Graduate Studies	Provost	Director of Government and Foundation Support
Shippensburg	Provost and Senior VP for Academic Affairs	Director of Purchasing & Contracting	Associate VP for Administration and Finance	Executive Director, Institute for Public Service
Slippery Rock	Provost and Vice President for Academic Affairs	Director of Grants & Sponsored Research	Assistant Vice President of Finance	Director of Grants & Sponsored Research
West Chester	Provost	Provost	VP for Admin & Finance	Associate VP, Sponsored Research and Faculty Development