



SCHOOL OF ENGINEERING AND TECHNOLOGY

INDIANA UNIVERSITY-PURDUE UNIVERSITY
Indianapolis

Purdue School of Engineering and Technology

Master of Science in Technology Student Handbook

Department of Technology Leadership and Communication
(TLC)

June 2017 Edition

<http://enr.iupui.edu/main/academics/grad/index.php>

<http://www.engr.iupui.edu/departments/tlc/grad/index.php>

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1. Introduction

Welcome to the Master of Science in Technology (MST) degree program at IUPUI. This handbook describes the requirements, policies, and regulations for the MST degree program offered by the Purdue School of Engineering and Technology at Indiana University-Purdue University, Indianapolis (IUPUI). The guidelines and procures in this handbook will help you in moving smoothly through your studies, in preparing your Plan of Study (see Section 6), and in meeting the degree requirements for completing the degree and graduating.

The School of Engineering and Technology offers graduate instruction leading to the Master of Science (M.S.) degree that enables you to concentrate your professional studies in technology by pursuing an interdisciplinary selection of classes relevant to your interests or in any of the areas of focus, concentrations, and/or certificates that the school offers. Concentrations have specific Plan of Study requirements and are listed on your transcript after graduation.

Department of Computer Information & Graphics Technology

Concentration: Information Assurance & Security

Department of Engineering Technology

Concentration: Facilities Management

Concentration: Motorsports

Department of Technology Leadership & Communication

Certificate: Human Resources Development

The MST program also offers either a directed project or course-only option.

When you have completed all degree requirements, the Purdue University Graduate School will grant your degree. The Purdue School of Engineering and Technology Graduate Programs Office (<http://www.engr.iupui.edu/gradprogs/>) works closely with the Purdue University Graduate School in West Lafayette (<http://www.gradschool.purdue.edu>) and the IUPUI Graduate Office (<http://www.iupui.edu/~gradoff/>) in coordinating and administering graduate Technology degrees, certificates, and concentrations.

Additionally, if you are an international student you will have contacts with the Office of International Affairs at IUPUI (<http://international.iupui.edu/>) regarding visas and immigration requirements. The School of Engineering and Technology Graduate Programs Office in the Dean's office in ET215 can direct you to the appropriate office for specific questions.

After admission, your first major task is to contact your academic advisor to develop your Master's Plan of Study before you earn 15 credit hours. The Plan of Study defines the academic program leading to the degree. Meet with the graduate program contact in your department to address questions about requirements, plans of study, or other academic matters.

2. Applying for Admission

This section provides an overview to the requirements, types of admission, time limits and opportunities for financial assistance relative to graduate study in the MST degree at IUPUI.

Visit the School of Engineering and Technology graduate programs [website for application information](#) for domestic and international applicants.

To apply to the MST degree program, submit the following:

- a form on which you provide additional information
- an electronic IUPUI graduate application for admission to the Graduate School
- three letters of recommendation
- a 400 word statement of purpose indicating your career goals and purposes for pursuing graduate studies
- official original transcripts of all college coursework
- results of the graduate examination required by your desired concentration, focus area, or certificate (as applicable – see Chapter 8)

If you are pursuing the interdisciplinary path of the MST, submit the GRE score only if you have not earned a BS degree from a USA regionally accredited institution. (Even if you hold a degree from a USA regionally accredited institution, you are welcome to submit the GRE score if you choose to do so.)

If you are an international applicant whose first language is not English, also submit official TOEFL or IELTS scores. Minimum test scores required for admission are listed in the document "[Frequently Asked Questions](#)" found at the Purdue School of Engineering and Technology Graduate Programs Office application website for international applicants.

After you submit all required application materials, an admissions committee in the relevant department reviews the materials to determine if they meet the MST admissions criteria.

Departmental graduate admissions decisions typically are based on a combination of the quality of your undergraduate work, graduate examination scores, letters of recommendation, and the overall potential that each student presents. The admissions committee examines your background, reasons, and goals for seeking the degree and determines whether you would be likely to be successful in the program.

The admission committee recommendation may be one of the following:

- Admission without Conditions for Continued Enrollment
- Admit with Conditions for Continued Enrollment (these conditions will be specified)

- Recommend applying for Graduate Non-Degree status and taking courses to demonstrate ability to successfully pursue graduate level work (you must reapply for admission to the School of Engineering and Technology after fulfilling conditions specified), or
- Deny.

Incoming students who have a "B" (3.00/4.00) or better grade point average in prior study are typically admitted without conditions.

After this initial review, MST admission recommendations are forwarded to the School of Engineering and Technology Associate Dean for Graduate Studies for review and recommendation to the Purdue University Graduate School for official approval of admission.

Financial Assistance

Availability

A limited number of teaching assistantships, graduate assistantships, and/or research assistantships, which include a modest stipend and tuition waiver, are available from each department within the MST program. If you are interested in an assistantship, direct your request to the Graduate Chair of the relevant department.

Assistantship Appointments

In order to provide opportunity for you to progress satisfactorily toward your degree objective, graduate appointments will ordinarily be offered for no more than one-half time and for a maximum of two (2) academic years. Renewal of graduate appointments for additional time will be based on satisfactory performance in the position and academic progress toward Plan of Study requirements, as well as the availability of positions.

Teaching assistantships (TA) and Research Assistantships (RA) include a tuition waiver during the semester of the assistantship. Normally teaching assistantships are not available in the summer. However, if you have a teaching assistantship in the spring and the following fall semester, a tuition waiver for the summer is still available to you.

Assistantships do not cover the cost of student fees assessed each semester. You will be responsible for those fees.

3. Getting Started After Admission

Once you have been formally admitted, the School of Engineering and Technology Graduate Programs Office will send you an enrollment notification by U.S. postal mail or by e-mail.

If you have questions regarding advising and registration, contact your department.

Your IUPUI e-mail is the primary mode of communication that the Office of Graduate Programs uses to communicate with you. If you typically use another e-mail account, set up your IUPUI account to forward messages to your most-commonly-used account.

To be prepared for registration, review Chapter 8 in this Handbook to learn about the program, its requirements, and the courses. In addition, consult the following:

- **Schedule of Classes.** The official Course Offerings for each semester are accessible in the Student Center area of One.IU (<https://one.iu.edu/>), the gateway to the university's web-based Student Information System (SIS). From here, you can search for the Schedule of Classes as well as the course registration system. Activate your IUPUI username to register. If you need assistance with registration, contact your advisor.
- **Consult with your advisor to decide which courses to take in your first semester.**

When you have your class schedule prepared and are ready to register, go to One.IU <https://one.iu.edu> and search for Class Registration.

4. Understanding the MS Technology Degree and Requirements

The Master of Science in Technology (MST) program requires a minimum of 33 credit hours. It is designed so that graduates holding a B.S. degree in a technology discipline or a related area can complete their degree as either a full time or a part time student. The program can typically be completed in four semesters (two academic years) of full-time work.

The MST degree has two options: Directed Project or “Course Only”.

- The Directed Project option requires 30 hours of coursework and three credit hours of an individual Directed Project (see Appendix A for details).
- The “Course Only” option requires 33 hours of coursework.

All plans of study (except areas of concentration) for the MST require you to complete nine credit hours of core courses, as listed in the table below. (See section 8 of this Handbook for concentration Plan of Study details.)

Credit Hour Requirements	“Course Only” Option	Directed Project Option
Required Core Technology Courses <ul style="list-style-type: none"> • TECH 50700 Measurement and Evaluation in Industry and Technology • TECH 50801 Quality and Productivity in Industry and Technology • OLS 57100 Advanced Project Management or TECH 50400 Motorsports Project Management 	9	9
Related Area of Study (see note)	24	21
Directed Project	None	3
Total Credits	33	33

Note: The related area of study must include graduate level courses from an approved course list offered by Technology or other departments. See your academic advisor for requirements in your focus area, concentration, or certificate. More than 50% of all the coursework must be from a Purdue School. Some course numbers are pending approval at this time.

Choosing the M.S. Directed Project Option

If you wish to pursue an independent research project in your area of interest or specialization, while under the direction of an academic advisor, select the Directed Project option. You will take 30 hours of coursework in addition to the directed project, which is worth three credit hours. See Appendix A for complete Directed Project information.

Examination Requirement

If you are completing a directed project, you must pass a final oral examination in order to graduate. You will take this public exam during the session in which you have declared candidacy, usually the last semester before graduation. Your examining committee will conduct the examination and evaluate mastery of content related to the plan of study. A second purpose of this oral examination is for you to defend the directed project.

Schedule the final oral examination with your advisor at least three weeks prior to the date of the examination. If your performance is not acceptable in one or more areas, the examining committee will specify what you must do in order to eliminate deficiencies.

Members of the Examining Committee

The examining committee will normally include the members of your advisory committee. The Dean for Graduate Studies may appoint additional members. The advisory committee chairperson (the major professor) may recommend additional members for appointment.

Choosing the “Course Only” Option

In consultation with your advisor, you may choose to complete 33 hours of relevant courses in order to earn the MST.

Completing the MST within Time Limitations

If you take courses on a full-time basis, you can typically complete the degree requirements in about two years. However, if you elect to take courses on a part-time basis, that choice will extend the time to degree completion.

We expect that you will complete the degree in five years from the time you first enroll.

If you do not enroll in courses for three consecutive semesters, you may be required to submit a new Plan of Study or may be dismissed from the degree program. In this case, you will be automatically placed in inactive academic status.

Re-enrolling after being placed on inactive academic status

If you are placed on inactive academic status and you wish to re-enroll, submit an IUPUI graduate application plus one current recommendation from an MST faculty member. You do not need to submit the other supporting application materials.

After submitting this application for re-admission, wait for the Purdue University Graduate School to approve it officially before enrolling for classes. If you enroll in and take a class before the Graduate School approves your new application for re-admission, those courses will be considered invalid and will not count toward the MST degree.

Achieving minimum grade requirements

To be in good academic standing, you must maintain a cumulative grade point index of at least 3.00 out of 4.00 in the courses on your Plan of Study.

If you are not in good standing at the end of a semester, you will be automatically placed on the academic checklist and sent a warning letter.

If you are on the academic checklist, you must meet with your advisor and complete the form “Request for Temporary Checklist Clearance” so that you can register for the coming semester.

If your cumulative grade point index remains below 3.00 at the end of the succeeding semester or summer session, you will be placed on probation, which means that you may not be able to register for further graduate courses until the Technology Graduate Committee reviews and approves your case.

If you take a course more than once while enrolled as a graduate student, only the most recent grade received in the course will count in computing the grade point average.

Transfer courses are *not* included in the computation of the cumulative grade point average.

To earn the MST degree, you must achieve a final cumulative grade point index of 3.00 or higher in courses that are on the Plan of Study. If you earn a grade of “F” in a course that is on the approved Plan of Study, you must repeat the course and receive a minimum grade of C or higher.

Demonstrating English Language Proficiency for International Students

Taking the English for Academic Purposes (EAP) placement test

According to IUPUI policy, most international students who are non-native speakers of English must take the English for Academic Purposes (EAP) Placement Test prior to registering for classes, even if you have taken the TOEFL.

Your letter of admission from the Office of International Affairs will indicate if you are required to take this test. If you obtain a TOEFL iBT score of 100 or higher and obtain an IELTS score of 7.5 or higher, you do not have to take the EAP test.

You are required to take all of the courses the placement test results determine and receive passing grades in those courses. You must begin taking the first English language course in the first semester of enrollment and complete the requirements in sequence before graduation.

One exception applies: If you are placed into English G013 “Reading/Writing for Academic Purposes,” you may replace G013 by taking TCM 46000 “Engineering Communication in Academic Contexts”.

If you do not complete these English requirements, you will not be approved for graduation.

If you believe that the results of the first EAP exam do not reflect your English abilities accurately, you may take it a second time within the first two weeks of beginning classes. If you decide to retake the EAP examination, the results of the second exam will determine your placement. A third examination will not be an option.

Completing the SPEAK Test (for International Graduate Teaching Assistants)

If you are a non-native speaker of English, you must take a test relating to your oral English proficiency before you are assigned duties that involve direct student contact (teaching assistants, laboratory assistants, graders, and tutors). You must take and pass the SPEAK Test, a nationally standardized test, before you are given an academic appointment. If you are not able to obtain the required minimum scores, you will take an ESL course, G020 “Communication Skills for International Teaching Assistants” (3 units) and take the SPEAK test again before you can accept your appointment.

5. Creating a Master's Advisory Committee

Selecting a Major Professor/Advisor

You will be assigned a temporary advisor upon admission who will help in establishing a timely and effective initiation of your program. Once you start your program and have taken a few classes, determine whom you would like to serve as your major professor and academic advisor. Choose a major professor before the end of your second semester.

Each graduate degree Plan of Study is unique to the individual student and his/her background, experience, and degree objectives. To guide the development of a Plan of Study, select a major professor (advisor) to chair your advisory committee and assist you through the program. The major professor will become the most important contact person, and the major professor/student relationship must be a mutually acceptable one. The major professor serves as your advocate, mentor, and supervisor.

This person should be associated with your area of specialization and must have a Regular (R.1, R.2, R.3, R.3A, R.5, R.5A, R.6) or Special 1 (S.1) Appointment from the Purdue Graduate School. (See appendix C to find a list of approved Purdue Graduate School professors in Technology at IUPUI).

Selecting an Advisory Committee

You and your major professor will select an advisory committee. The duties of that committee are to assist you in preparing the Plan of Study and to offer advice during your graduate work. Your initial advisor should initiate you becoming acquainted with potential faculty members to serve on your advisory committee.

When you complete your Plan of Study (see Chapter 6), you will also complete the part of the form that lists the members of your advisory committee. Discuss the Plan of Study with your preferred potential advisory committee members and secure their permission to list them on the Plan of Study before you submit the plan for signatures. These people also need to have Regular (R.1, R.2, R.3, R.3A, R.5, R.5A, R.6) or Special 1 (S.1) Appointments. (See Appendix C)

The advisory committee consists of three members of the graduate faculty. The major professor and at least one other member should be from the School of Engineering and Technology graduate faculty (see Appendix A). The third member may represent a related subject area from your Plan of Study. This member must also be a member of the Purdue University graduate faculty. Members of the committee need not be faculty with whom you have taken course work. Contact your academic advisor for recommendations for appropriate graduate committee members.

A co-advisor may be designated when advantageous and where it can build faculty experience in advising. If your Plan of Study and/or research project would be significantly improved by the expertise of a faculty member or a person outside of the university, you and your major professor may request consideration for special certification for such service.

Such requests require a rationale and description of the expertise. Rout the request to the Purdue Graduate School via the School of Engineering and Technology Graduate Programs Office (ET 215).

If possible, begin selecting your advisory committee during your first semester and be sure it is complete by the end of your second semester if you are a full-time student. The committee will help you develop the Plan of Study and review/approve your directed project proposal, if applicable, which must be approved before work on the project may begin.

6. Completing the Master's Plan of Study

Faculty members in the MST program believe that advanced study should be tailored to the individual and his/her professional and intellectual objectives. Thus, the Plan of Study is unique to each student's needs and desires.

To facilitate an individually tailored program, each Master's degree Plan of Study consists of a primary area and one or more related areas. (Both the primary area and the related area are based on the relationship of the course content and not necessarily on the departmental course prefix.)

Developing the Plan of Study begins when you register for your initial courses. Your advisor and/or major professor will discuss your background, interests, and degree objectives as you prepare for the first enrollment. The major professor will also recommend possible related areas and advisors. Major professors should maintain a list of potential IUPUI courses, and appropriate faculty contacts, relevant to their areas, in order to assist graduate students in developing their Plan of Study.

The Master's Plan of Study form (GS Form 6) must include all courses you will take to meet the degree requirements. (See Appendix B and refer to website [Forms for Students](#)). Include the names for the primary and related areas of study; the course number, course title, and credits for each course; and the date when the course was or will be completed.

Each member of your advisory committee and you will sign the Plan of Study. After review, the Dean for Graduate Studies also signs the plan. The plan is then submitted to the Graduate School for formal approval.

You and your major professor should periodically access the approved Plan of Study and review your progress towards completion.

After an approved Plan of Study is on file, committee and course changes can be made at any time by completing the appropriate forms.

Completing Core Course Requirements (Primary)

All Master of Science in Technology plans of study will have a primary area of nine credit hours including the following core courses.

- TECH 50700 Measurement and Evaluation in Industry and Technology
- TECH 50801 Quality and Productivity in Industry and Technology
- OLS 57100 Advanced Project Management or TECH 50400 Motorsports Project Management

If you need to request an exception to these courses, discuss acceptable substitutes with your major professor.

Completing Related Area Requirements

Each Plan of Study must include 21-24 semester hours of courses from at least one Related area (21 if completing a directed project, 24 if pursuing a “*course only*” option). Related area courses are based on your focus area (such as Electrical and Computer Engineering Technology-ECET, Mechanical Engineering Technology-MET, Computer and Information Technology-CIT, Leadership/Human Resource Development-OLS/HRD, or Technical Communication-TCM) or area of concentration (listed in Chapter 1 of this Handbook). Each Related area ideally should have a faculty representative on your advisory committee.

If pursuing a concentration, see Chapter 8 of this Handbook to learn about the course requirements for the concentration you wish to pursue.

Undergraduate credit

Effective in Fall 2016, no courses below the 500 level will be permitted on the Plan of Study.

Independent Study credit

You may include a maximum of 6 semester hours of independent study credits in your Plan of Study.

Full-time study requirements for International Students with F-1 visas

To maintain F-1 visa status, you must enroll full-time (at least eight credit hours) each fall and spring semester. You do not need to enroll in summer semesters, but you may. Additionally, you are allowed to enroll in one on-line course each semester except for the final semester of study, during which you cannot enroll in an online course.

Determining if Other Courses Can Be Included in Your Plan of Study

In addition to the courses you plan to take while earning the MST, you may be able to apply courses you have already taken to your Plan of Study. These additional courses may include:

- undergraduate excess credit from graduate level courses,
- transfer credit, and/or
- post-baccalaureate registrant credit (Graduate Non-Degree - GND).

You can include up to 15 credit hours of courses (total) in these three categories in your Master’s Degree Plan of Study. Only 12 of these 15 credits can come from Undergraduate Excess Credit and/or Post Baccalaureate Registrant (GND) courses.

Details about each of these categories follow.

Including Undergraduate Excess Credit

If you earned your undergraduate degree at IUPUI, and if you took 500-level graduate courses in excess of your undergraduate degree course requirements, you may apply a maximum of 12 semester hours of such credit to your Plan of Study if the courses meet the following conditions:

- You declared the course as graduate work at the time that grades were filed for that semester.
- You took the course during your senior year;
- You received a grade of at least "B" in the course;
- The course was designated as a graduate course;
- You performed your work in the course at the level required for graduate students in the course, and
- Your advisory committee approves including these credits.

Including transfer credit in your Plan of Study

You may include a maximum of half the required course credit hours (15) earned at another accredited institution, or from any non-Purdue schools at IUPUI, in your Plan of Study.

Graduate School policy states that all courses transferred

- must be acceptable for graduate credit at the school at which they were taken,
- must not have been used to meet the requirements for another degree, and
- must have been completed with a grade of "B" or better.

To include these transfer courses in your Plan of Study, submit to your advisor a catalog description of the course and an official transcript showing completion of the course with the grade received ("B" grade or better only).

Grades from transfer courses will not be included in computing the graduate GPA.

Your advisory committee must approve inclusion of these courses in your Plan of Study.

Including Graduate Non-Degree Credit (Post-Baccalaureate Registrant Credit)

The Graduate School has created an enrollment category known as graduate non-degree (GND) to enable people who have a bachelor's degree to enroll in graduate courses without being officially admitted to a graduate program.

You can include a limited amount of credit earned in this category on your Plan of Study at the discretion of the advisory committee, the recommendation of the Assistant Dean for Graduate Studies, and the approval of the Graduate School.

You can include a maximum of 12 semester hours of GND graduate credit in your Plan of Study. In order to include a course, you must have earned at least a "B" grade.

Preparing and Filing the Master's Plan of Study (GS Form 6)

Before you complete 15 credit hours toward the MST, contact your advisor for assistance in preparing a draft of the Master's Plan of Study, GS Form 6. A Word version of this form is available at the graduate programs website [Forms for Students](#).

If you were admitted with conditions, you must have met them or be in the process of meeting them at the time you submit the Plan of Study.

If you have not met all of the conditions, the head of the graduate program or the department chair must create a written statement explaining why the condition/s have not been met and/or the resolution to the conditions, if relevant.

To file the Plan of Study for approval, follow these steps.

1. Review the portions of this Handbook to determine the requirements for the option (concentration, focus area, and/or certificate as well as direct project option or course-only option) you wish to pursue. Select courses that meet the degree requirements, and are appropriate for your area and interest. If possible, check that the courses you need will be offered at a time when you wish to take them.
2. Prepare a draft of your Plan of Study (sample included in Appendix B).
 - a. Indicate courses in your primary area with a “P” in the left-most column labeled “Area.” List primary area courses together as a group.
 - b. Indicate related area courses with an “R” in the “Area” column. List related area courses together as a group.
3. Select a faculty member as your major professor and the chair of your advisory committee. Confer with him/her for advice on the Plan of Study and his/her informal agreement to the plan when it is submitted in final format.
4. In consultation with your major professor, select two additional faculty members to serve on your graduate advisory committee. To find qualified faculty members, see Appendix C.
5. Activate your Purdue Career Account if you have not already done so. Instructions for doing so are contained in an e-mail you received several months after admission.
6. Prepare and submit an on-line Plan of Study following the instructions at <http://graduate.iupui.edu/doc/forms/plan-of-study-purdue.pdf>

The on-line system will route your plan to your committee members and the graduate office for approval.

After the Plan of Study is officially approved, if you wish to make changes, complete a “Change to the Plan of Study” GS Form 13 found at <http://enr.iupui.edu/sites/graduateprograms/current-students/forms.php>.

Registering for your Final Semester

You must register for Candidacy in the final semester in addition to enrolling in the remaining course work on your Plan of Study.

In the final semester:

- Enroll in at least one credit of fee-bearing coursework, i.e. a regular course(s) or a directed project, and
- Register for CAND 99100 Candidate to declare your status as a “candidate for degree”. CAND 99100 has no credit and zero cost.

If graduation is cancelled or postponed, in subsequent semester/s you will again:

- Enroll in at least 1 credit of fee-bearing coursework, i.e. a regular course(s) or a directed project, and
- Register for CAND 99100 to declare your status as a “candidate for a degree”.

7. Overall Master's Degree Procedural Checklist

This checklist will help you map a path through the MST. This checklist provides a general picture of the process, but there may be individual exceptions.

Specific and official deadlines are announced each semester, will be emailed to all MST graduate students, and are available from the School of Engineering and Technology Graduate Programs Office [graduation information](#) website.

Prior to the First Semester

1. Be aware of *admission condition/s for continued enrollment*, if any, which must be satisfied.
2. Study the graduate handbook carefully. With the help of your major professor, discuss your career and educational objectives and draft a preliminary Plan of Study.
3. Register for classes. See the enrollment packet that you received after admission for instructions on how to register. In addition, complete the steps needed for obtaining an ID card and a parking permit, if needed. Instructions for doing so are also included in the packet.

Succeeding Semesters

1. Select a Master's committee consisting of your major professor and at least two graduate faculty members.
2. Discuss the preliminary Plan of Study with each of the members of the advisory committee.
3. Using the Plan of Study (GS Form 6, <http://enr.iupui.edu/sites/graduateprograms/current-students/index.php>), submit a draft Plan of Study to your committee members.
4. Refine the Plan of Study, if needed, based on the committee's suggestions.
5. If you have admission condition/s ensure that you have met the condition/s.
6. Activate your Purdue Career Account, following the instructions you received via e-mail several months after admission.
7. Submit your final Plan of Study using the instructions at <http://graduate.iupui.edu/doc/forms/plan-of-study-purdue.pdf>
8. Identify a tentative directed project if you are pursuing this option.
9. Register for classes for the next semester. This option is usually available about halfway through a semester.
10. Apply for graduation. Watch for the deadline; it comes a couple of semesters before graduation.

Final Semester

1. Register for the remaining course/s on your Plan of Study.
2. Register for *Candidacy (CAND) 99100* to declare your status as a “candidate for degree” plus a minimum of 1 credit hour of a fee-bearing course. CAND 99100 is a “no credit, no cost” registration. (CAND 99200 and 99300 may only be used in exceptional cases with approval of the IUPUI Graduate Office.)
3. Insure that any changes in your Plan of Study have been approved.
4. Present your Directed Project, if you have chosen that option.

8. Department of Technology Leadership & Communication

Core Requirements

The Department of Technology Leadership and Communication (TLC) believes that graduate students should acquire the necessary knowledge, skills and abilities to make data-driven decisions in an increasingly diverse, global, and interdisciplinary world. Therefore, courses in quantitative research methods, project management, and quality and productivity are included in the TLC required core courses.

Additionally, the TLC department believes that you should have multiple pathways to academic and career success. We have created a flexible degree program that allows you to take TLC graduate courses and receive an academic certificate in Human Resource Development and/or the MS in Technology (MST) degree. Along with required core courses, you can focus on Human Resource Development (HRD), Organizational Leadership (OLS), and/or Technical Communication (TCM), supplemented by courses from related fields. The table below presents required and related coursework requirements for TLC MST programs.

Credit Hour Requirements	Course Only Option	Directed Project Option
Required Core Courses <ul style="list-style-type: none"> TECH 50700 Measurement and Evaluation in Industry and Technology TECH 50801 Quality and Productivity in Industry and Technology OLS 57100 Advanced Project Management in Technology 	9	9
Courses in a Related Area of Study	24	21
Directed Project	None	3
Total Credits	33	33

These core courses may be offered online, partially online (hybrid), or in face-to-face formats. Details for a specific semester are available in the campus Schedule of Courses.

Each course is worth three credit hours.

Core course descriptions:

OLS 57100	Advanced Project Management in Technology	This course enables the student to learn project management through the application of project approaches in a team based setting. Through the application of project tools and templates, the student learns the project life-cycle approach as demonstrated through actual and simulated project situations. The course presents the terms and approaches used in industry today and allows the student to apply these methods through both individual and team based settings.
TECH 50700	Measurement and Evaluation in Industry and Technology	An introduction to measurement strategies in industrial, technical, and human resource development environments. The evaluation of measurement outcomes will be the primary focus of the course.
TECH 50801	Quality and Productivity in Industry and Technology	This course examines the process optimization utilizing contemporary quality and systems engineering methodologies, specifically Six Sigma, Lean, Toyota Production System (TPS) and Constraint Management. Direct application of principles to an industry field project is required. This course covers optimization and management of production, service and transactional processes.

Certificate in Human Resource Development

The TLC department offers a graduate certificate in Human Resource Development (HRD). This Certificate will provide you with skills that qualify for specialized professional and managerial positions, such as:

- HR/HRD generalist with early career experience
- Manager or supervisor of training/HRD related functions
- Government employee involved in workforce/career related areas
- Nonprofit training/HR/HRD professional
- Current or aspiring consulting firm employee
- Training professionals/specialist
- Manager/executive interested in employee and organizational development

Housed in the Department of Technology Leadership and Communication, the Graduate Certificate in HRD requires 12 credit hours, including three required courses (9 credit hours total) and one elective (3 credit hours total).

The table below provides an overview of the graduate Certificate in Human Resource Development.

Course Requirements – Human Resource Development Certificate	Credit Hours
Required Core Courses <ul style="list-style-type: none"> • OLS 57400—Managerial Training and Development (3 credits) • OLS 51500—Foundations of Human Resource Development (3 credits) • OLS 58200—Leadership and Organization Change (3 credits) 	9
Elective (see note)	3
Total Credits	12

Note: The elective must be three credit hours of graduate level coursework from the Purdue School of Engineering and Technology or another IUPUI school or graduate program. Your TLC advisor must approve this course and it must be appropriate for the HRD Certificate.

Upon completion of the HRD certificate, you should be able to:

- assess, analyze, plan, implement, evaluate, and synthesize knowledge as you think critically, solve problems, and make decisions in HRD contexts,
- apply HRD perspectives to workforce/employee learning and development, especially in technically-oriented organizations,
- communicate and interact productively with a diverse and changing workforce and citizenry, and
- design and develop action research problem-solving approaches, access published research, and apply its knowledge to inform organizational action and decision-making.

You may earn this certificate while earning the MS in Technology. Courses will count toward both the MS degree and the HRD Certificate. Both the degree and the certificate will appear on your transcript after graduation.

If you are applying for the HRD Certificate and the MS in Technology at the same time, please see a TLC advisor for details on how to do so.

Focus Areas with the MS in Technology – HRD, OLS, or TCM

Focus areas include coursework related to a specific discipline or topic in addition to the MST core courses. Focus areas do not appear on your final transcript, but they provide you with a defined plan of study to fit your interests and career goals.

Human Resource Development (HRD) Focus

Given the dynamic global changes to the knowledge economy and the needs for an agile and vibrant workforce worldwide, HRD has become an increasingly important field of research and practice. The increasing demand for HRD-related professional and academic backgrounds and training is becoming particularly obvious in urban settings. Specifically the objectives of HRD area of focus are:

1. To enrich your capacity to
 - develop HRD-related knowledge;
 - understand HRD-related theory;
 - investigate HRD- related research; and
 - develop related competencies associated with HRD practice.
2. To enhance the scholarship of graduate students who are interested in the knowledge, theory and practice elements of HRD including: management, public affairs, education, engineering, health care, communication, and psychology.
3. To augment the professional development of individuals who seek an academic or industry focus in HRD as a way to support a career in HRD or to support professional and managerial development as it relates to HRD for employees, subordinates or other roles related to individual professional interests.

Courses in managerial training and development, foundations of human resource development, organizational change, project management and related human resource development areas will be available to students who choose the HRD area of focus. The table below provides an overview of core and related courses that students in this focus are take.

Requirements for an HRD focus include

Credit Hour Requirements	Course Only Option	Directed Project Option
Required Core TLC Courses <ul style="list-style-type: none"> • TECH 50700 Measurement and Evaluation in Industry and Technology • TECH 50801 Quality and Productivity in Industry and Technology (pending course number approval) • OLS 57100 Advanced Project Management (pending course number approval) 	9	9
Courses in a related area of study, including <ul style="list-style-type: none"> OLS 57400—Managerial Training and Development (3 credits) OLS 51500—Foundations of Human Resource Development (3 credits) OLS 58200—Leadership and Organization Change (3 credits) 	24	21
Directed Project	None	3

Total Credits	33	33
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Note: The related area of study must include courses from an approved course list offered by the Purdue School of Engineering and Technology or other approved academic units. See your academic advisor for requirements in your area of focus.

If you are pursuing the HRD Certificate along with the HRD focus, the courses that you take for the Certificate will count toward the MS in Technology with an HRD focus area, and vice versa. However, in order to fulfill the MS in Technology requirements, you will take courses in addition to those required for the HRD Certificate. Check with your advisor for details.

Organizational Leadership Focus

Leadership in science, technology, engineering and mathematics (STEM) is more important to organizational competitiveness, sustainability, and success. The MST focus area in Leadership provides opportunities for those who desire leadership roles in business, government or industry. Specifically the objectives of this focus area are:

1. To provide a program that generates and disseminates knowledge about leadership within the context of STEM expertise
2. To ensure that graduates possess the knowledge, skills, abilities, resources, and perspectives necessary to be effective leaders in STEM and STEM-related professions
3. To enhance economic opportunities for graduates and the organizations where they are employed
4. To engage in research, scholarship, and creative endeavors that add knowledge to the discipline of leadership

Courses in leadership theory and application, ethics, managerial training and development, organizational change, coaching and mentoring, project management, conflict management and coaching, international leadership, sustainability and related leadership development areas will be available to students who choose the Leadership area of focus. The table below provides an overview of core and related courses that students in this focus area take.

Requirements for an Organizational Leadership focus include

Credit Hour Requirements	Course-Only Option	Directed Project Option
Required Core TLC Courses <ul style="list-style-type: none"> • TECH 50700 Measurement and Evaluation in Industry and Technology • TECH 50801 Quality and Productivity in Industry and Technology • OLS 57100 Advanced Project Management in Technology 	9	9
Courses in a related area of study, focused especially on Leadership	24	21
Directed Project	None	3
Total Credits	33	33

Note: The related area of study must include courses from an approved course list offered by the Purdue School

of Engineering and Technology or other approved academic units. See your academic advisor for courses in your area of focus.

Technical Communication Focus

With the expanding sophistication of the processes and technical requirements of Technical Communication, the need for technical communicators who have expertise in communication and a solid foundation in technology and technical concepts is growing.

An MS in Technology with a focus area in Technical Communication prepares graduates for roles such as

- Technical Writer/Communicator
- Technical Editor
- Usability Specialist
- Web Designer
- Multimedia Content Developer
- Technical Trainer
- Technical Communication Manager

While pursuing the MS in Technology with a focus in Technical Communication, in addition to the core courses, you may take courses in

- Effective Workplace Technical Communication
- Visual Technical Communication
- Managing Document Quality
- Teaching Technical and Professional Communication
- Research Approaches in Technical and Professional Communication

These courses are currently in the approval process, so they may be offered with an OLS 58100 course number. Check the campus Schedule of Courses for details about a specific semester.

Requirements for a Technical Communication focus include:

Credit Hour Requirements	Course-Only Option	Directed Project Option
Required Core TLC Courses <ul style="list-style-type: none"> • TECH 50700 Measurement and Evaluation in Industry and Technology • TECH 50801 Quality and Productivity in Industry and Technology • OLS 57100 Advanced Project Management) 	9	9
Courses in a related area of study, focused on Technical Communication	24	21
Directed Project	None	3
Total Credits	33	33

TLC Graduate Course Descriptions

The following approved graduate courses will count toward the requirements of the MS in Technology with a focus on Leadership and/or Human Resource Development. All courses are worth three credit hours unless indicated otherwise.

OLS 50100	Leadership and Ethics	An examination of ethical, legal and policy issues facing business and technology leaders. Topics include ethical decision-making, corporate social responsibility, codes of ethics, public policies and government regulations, international business practices, technology innovation, risk management in a global environment, and specific areas of law-employment, health and safety, environmental, contract, warranties and liabilities, intellectual property, technology law, and international laws and regulations. This course uses the case study method and involves active discussion and debate.
OLS 51500	Foundations of Human Resource Development	A survey course emphasizing the human resource function (and its development) in the context of the work organization. Human resource development topics include exploration of various training and development techniques, the relation of training to organizational strategies, training needs analysis, evaluation of training, and career development. The strategic approach to human resource management also is covered, including what human resource professionals can and should do to help the organization succeed.
OLS 56300	Sustainable Practices in Business & Industry in the European Union	This course examines and critically assesses sustainable practices in businesses, industries, and/or municipalities in Germany or France. Students will spend one week in Marseille, France or Mannheim, Germany visiting, touring, and analyzing businesses, industries or municipalities on their sustainable practices. In addition, to learning about the organization's sustainable practices, students will also learn about their specific country's culture and some language skills.
OLS 57400	Managerial Training & Development	Review of current managerial education and development theories and practices; discussion of fundamental social, economic, and political changes affecting business and the work of managing; implications of these changes for individual manager development and continued growth.
OLS 58000	Interpersonal Skills for Leaders	Development and improvement of interpersonal dynamic skills for effective leadership in organizations. Emphasis on action learning and real-world application of skills.
OLS 58100	Workshop in OLS (1-6 credit hours)	Courses using this number may cover special topics, an internship, or an independent study.
OLS 58200	Leadership & Organizational Change	This course explores issues in leadership and organizational change. Included are change theories, utilizing resistance to change, contemporary approaches to change, the future workplace, and researching best practices in organizational change.
OLS 58300	Coaching & Mentoring in Organizations	This course explores issues and practices in technologically driven organizations pertaining to the roles and functions that coaching and mentoring play in employees development. The focus of the course is on identifying coaching opportunities, enhancing communication skills, developing and implementing coaching and mentoring strategies, and evaluating the outcomes of these strategies.
OLS 59800	Directed MS Project (1-6 credit hours)	A formal investigation of a particular issue or problem under the guidance of the Directed Project Chair and Advisory Committee.

Many of these courses are offered online, partially online (hybrid), or in face-to-face formats. Details for a specific semester are available in the campus Schedule of Courses.

Additional courses are in the process of being approved, so check the campus Schedule of Courses for course offerings in a given semester. Courses in the process of being approved will be offered with the OLS 58100 designation.

For Additional TLC Information

For additional information related to graduate certificates, courses, or focus areas offered by the Department of Technology Leadership and Communication, get in touch with:

Marjorie Rush Hovde, PhD
Associate Professor of Technical Communication
Chair of the Graduate Programs
Department of Technology Leadership & Communication
Purdue School of Engineering and Technology, ET 324F
799 W. Michigan St.
Indianapolis, IN 46202
317-274-0825
mhovde@iupui.edu

Appendix A: M.S. DIRECTED PROJECTS

To pursue the M.S. Directed Project, you must first develop a proposal and secure its approval by your advisory committee.

The directed project is an applied research project that is more extensive and sophisticated than a graduate-level independent study and less formal than a master's thesis. The overall objective of the requirement is to engage each graduate student in a study, typically with an industry, business, or education focus, which is sufficiently involved as to require more than one semester to conceive, conduct, and report. The focus is on a topic with practical implications rather than original research.

Directed Project Characteristics

- Written for business, industry, or other organizations
- Results in a tangible product of value to business and industry, or education for business and industry
- Usually involves a technical problem solving activity
- Is documented to permit replication
- Usually involves some form of validation
- Generally requires application of a synthesis of coursework
- Able to be published (recommended but not required)

Directed Project Objectives

By successfully completing a Directed Project, you demonstrate your ability to:

- Identify a business or industry relevant solution to a technology related problem
- Define and/or validate a business or industry relevant problem
- Address a technological problem in a systematic and replicable manner
- Use technical/professional research and/or development procedures effectively
- Identify criteria for success/solution of the problem
- Gather information appropriate to the problem by employing business research procedures
- Document the research and development activity in a manner that permits replication and assessment of key decisions and alternatives
- Write effectively in a form customary to business and industry, typically using APA format
- Prepare and deliver a presentation in a form customary to business and industry

Effective Directed Project Practices

- A directed project requires you to select and employ effective research and development procedures to address the problem.
- A directed project generates a new solution, product, or procedure. It may involve “proof of concept,” and it must be of direct value to business or industry or to education for business or industry.
- A possible component (although not a requirement) of the directed project might be an Implementation Plan (i.e., recommendations for deploying the developed solution). This plan should include the suggested near and midterm steps.
- We encourage the involvement of industry partners for validation or other relevant activities.
- Teams of students working on larger projects are permissible as long as each has a unique and significant contribution and that there is a high degree of independence so that one student’s success is not predicated on another’s.
- The written documents should employ either a) business or industry style manuals such as the *Chicago Manual of Style*, b) other relevant business/industry writing style manual, or c) the APA manual when required by the advisor.

Preparing M.S. Directed Project Proposals

Every individual and every proposed project is unique. The exact approach that you take is ultimately at the discretion of your major professor (advisor) and your graduate committee.

At the start of your second-to-the-last semester, begin thinking about your directed project topic in consultation with your advisor. Think of it in terms of a workplace problem or need that should be addressed.

Whether a proposal is prepared for a graduate advisory committee or for an employer, proposals must be succinct and direct. Clear, jargon-free prose that establishes the need for the study and a proposed method of solution are required. While School of Engineering Technology faculty have not established specific proposal length requirements, a proposal should be sufficiently detailed to enable the graduate committee to render effective judgment and share appropriate advice on how to proceed.

In addition to content, pay attention to format and style. Most publication manuals include both style and format guidelines.

Format is the physical layout of a paper. Rules for indention, type face, line length, etc., are considered format issues.

Style requirements are created to facilitate clear communication. Writing style involves the selection of words and the organization of those words in a sentence. Style includes formality, person, complexity of language, abbreviation standards etc.

Mechanics of writing include spelling, punctuation, and grammar usage that conforms to professional conventions.

Write the proposal in future tense. Thus, state procedures as, "This proposed study will collect data using . . ." or "Results of this study will be used to"

School of Engineering and Technology standards recommend that the proposal be written in third person. It is seldom necessary to refer to oneself in a formal paper. Use a writing style that does not include either personal identification with a personal pronoun (I, we) or a given name (Jane Doe). If such a strategy is not possible, use an appropriate third person term such as "this developer" or "this researcher". This practice should be used only as a last resort, as it is considered ambiguous in many cases.

Directed Project Proposal Contents

Cover Page

The cover page must follow the format used by the template in Appendix B. This format includes spaces for each advisor to sign and date the proposal. Committee member information should be entered using the first name, middle initial, and last name. Do not use academic or degree titles such as Professor, Dr., etc., before the name. List the major professor (committee chairperson) first and then each related area advisor. The committee member's relationship to the Plan of Study is listed below his/her name. Thus, if the primary area on the Plan of Study is listed as "Technology", the committee chairperson (major professor) would be listed as follows.

Susan P. Jones,
Chair Technology

If the Plan of Study includes two related areas titled "Communications" and "Applied Computing," the committee members would be listed as follows.

Alexander G. Bell
Communications
A. Paul McIntosh
Applied Computing

Abstract (1 page maximum)

Prepare an abstract that succinctly describes the proposed problem addressed, purpose for the study, significance of the proposed study, and an overview of the proposed methods and the anticipated deliverables.

Introduction (1-3 pages)

The introduction establishes a frame of reference in the reader's mind. Appropriate introductions are brief and designed to establish the context and need for a study.

Choose one of several possible ways to construct an introduction that will accomplish its intended goal.

One common method is to identify the problem in global terms. This approach creates an overall frame of reference that makes it much easier for the reader to focus on the

more detailed portions of the proposal.

Another method is to identify a plausible alternative to established methods of addressing the problem at hand. For example, sometimes when employing conventional methods, an unexpected outcome (anomaly) occurs. Given this, the proposal could be focused on ascertaining if the outcome was due to chance or whether other factors exist that would make the unexpected a more likely future occurrence. Given the pace of development, often wholly new techniques or procedures may offer an alternative to current methodologies. The beginnings of these new approaches are placed in the introduction to set the stage for the proposed project.

Problem Statement

A problem is something that needs to be solved. Therefore, the statement of the problem is merely a brief description of what is wrong, written in specific enough terms that the reader can see the problem. In this section, you may want to analyze the problem, covering topics such as the history of the problem, the causes and effects, etc.

In the problem statement, do not restate the introduction, do not describe the methods to be used, and do not propose a suggested solution.

Significance

After stating the problem, establish its significance, showing the importance of the proposed study. Tie the problem to your overall Plan of Study and career goals, as appropriate. Generally, this section should "sell" the project as being worthy of doing in the business/industry and/or academic/disciplinary context. One of the effective methods of strengthening this section is to highlight key citations from credible sources that indicate that the problem is real and that things would be better if it were solved. In addition, you may discuss the effects on the business if the problem is not solved.

Literature Review

The review of literature serves several important functions.

First, it is a method to indicate that the problem is more universal than the specific proposal.

Second, it serves as a justification for the proposed study in that others have addressed related problems.

Third, it positions the work in the field giving context to what has and has not been done and where this project/thesis is positioned therein.

Fourth, it identifies possible methods for the conduct of the study by identifying possible data collection strategies, statistical procedures, or sources of other procedural information.

Finally, the review of literature should document justification for the proposed study.

There are three principle justifications for additional investigation of a problem. One justification is that there are plausible alternative hypotheses to conclusions reported in existing studies. That is, there may be another possible variable that is influencing the results of existing studies. The second reason for proposing a new study is to determine if the

reported study can be duplicated (replicated) in a new environment. A third reason for conducting a study accounts for the introduction of new data or procedures that have become available. In this case, the review of literature serves to demonstrate that no examples of the use of new techniques could be found.

Typically, literature review sections include some appropriate description of the following:

- A description of the methodology and terms employed to conduct the review of the literature itself
- A description of the literature pertinent to choices of data collection and analysis
- A thematically organized summary of the review of the literature

For the purposes of a proposal, the review of literature should focus on the key studies. These cannot be determined without extensive review of the literature prior to the preparation of the proposal. The review must be sufficiently extensive to insure that all sides of an issue have been researched and that a balanced evaluation of the problem area has been accomplished.

Because a proposal is limited by space constraints, only the most germane studies should be included.

Purpose

Once the problem and its significance have been stated, the specific purpose of the project must be described. Indicate what you propose to do about the problem, i.e., what part of it you wish to address and what the deliverables of your work will be. You can state the purpose in one of three ways, as shown in the following examples:

1. Research Purpose: The purpose of this study is to determine to what extent the duration and frequency of physical therapy influence health care costs following traumatic injury.
2. Research Question: Does the duration and frequency of physical therapy influence health care costs following traumatic injury?
3. Research Hypothesis: The health care costs of patients who participate in physical therapy over an 8-week period following traumatic injury are significantly less than the costs of patients provided only 4 weeks of therapy.

Definitions

Include definitions whenever it is necessary to inform the reader of the unique way in which the terms are to be used in the proposed project. For example, if learning is to be defined as "a change in behavior," both the entering and terminal behaviors must be defined. However, when terms are used in standard ways, it is not necessary to include the definitions. Be sure to spell out all acronyms.

Assumptions

Every study requires some assumptions; they will vary with the type of problem. For example, one assumption could be that all members of the group being studied know Windows-based operating systems. Another assumption may be that employees will be

willing to participate in the training exercise being proposed. Assumptions, of course, must be established as part of the proposal writing stage and they must be approved by the major professor and committee.

Scope or Delimitations

This section describes the scope or delimitations of a project, i.e., statements about things that you will NOT address. There are always constraining factors in a study. This is particularly true of directed projects in which time, money, and other resources are limited to those that the individual student can bring to the study.

A delimitation is a factor that will narrow the scope of the study being proposed. This is a factor that is known about before the study is performed. For example, one delimitation may be that time does not allow a follow-up after the initial treatment or evaluation. Will the study be limited to a single facility of Corporation X, or will it be conducted at multiple sites? Clearly, a multiple-site study is more generalizable than a study at a single location. The signed proposal is the contract for the study. If the proposal were ambiguous about its limits, you could be in the position of having to gather further information.

Note that delimitations are distinctly different from limitations. A limitation is a weakness or restriction on inference. An example would be a survey having a response rate low enough to produce unreliable and invalid information.

Methodology (or Procedures)

All procedures to be used in the proposed study should be defined. For empirical studies, define the population, sampling frame, and sampling method. Whenever possible, justify the proposed procedure by reference to other published studies that recommend the steps defined. This will insure that the advisory committee understands the steps you wish to take and will establish those steps as appropriate in other published studies.

Time Action Plan

A time action plan establishes the period in which the conduct of the proposed study will occur. This section is vital when there are strict time constraints on data collection or other factors affecting the conduct of the study. This plan also helps communicate your proposed time allocation for each major component of the project.

Limitations

Limitations are descriptions of weaknesses of a study. If you know about these limitations at the time of generating the proposal, reveal them explicitly in advance. Often, however, in addition to any weaknesses known in advance of conducting a project, some invariably arise during the course of project execution. These new limitations will be added to the limitations section of the final project report, and they must be taken into account when discussing the project conclusions.

References

The reference list should include only the publications cited in the body of the proposal. All reference citations within the body of the proposal and the reference list must comply with

the standards of the most recent edition of the Publication Manual of the American Psychological Association.

Note on Use of Acronyms

If you use acronyms to reduce volume/repetition in a proposal, use the full term the first time followed by the acronym in parentheses. Thereafter, the acronym may be used in lieu of the full term.

The paragraph below demonstrates the inappropriate and excessive use of acronyms because readers do not know the meaning of the acronyms.

What would happen if the president of the BBB requested the assistance of the FTC in order to convince the DOC that it should investigate the effect of WSJ interference with NAFTA signatories regarding concerns about the impact of UL standards on GATT? I hope that the need will never arise.

Preparing the Final M.S. Directed Project Report

The directed project final report uses the project proposal as its foundation. During the proposal development process, you created a procedure to follow to conduct the project. The final report now modifies the Methodology section to describe what exactly what you did and adds new sections to discuss what the findings and conclusions are. Note and justify any deviations from the proposal.

The tense found in the proposal draft is changed from future (what is planned) to past (what was done) when converting the proposal document into the final report.

The final report will typically retain all of the sections of the project proposal except the Time Action Plan. The following sections are added to the original proposal items.

Results (or Findings)

In this section, report and discuss the results of the project. When reporting findings, simply report factual information, including test scores, changes observed in lab performance, etc. Even if your results are not what you expected, you may still have important information to report. Later, in the Discussion you will interpret or explain the significance of the findings.

Conclusion, Discussion, and Recommendations

Based on the findings, draw conclusions, interpreted and considered within the context established by the study's delimitations and limitations. Additionally, link conclusions to key points or questions from the literature review. The conclusions form the basis for the final evaluation of the project. After drawing conclusions and determining the effect of the study, you may make final recommendations for further work and or research.

For example, assume that a new laboratory activity is developed. This activity was implemented in one laboratory section. During post-testing, the laboratory scores were higher in the section that utilized the activity. However, the activity required twice as much laboratory time, compared to the normal activities. It might be concluded that the instruction was effective, as evidenced by the test scores. A recommendation might be that the instruction should take less time. A second recommendation might be to track students who

received this instruction and note if improvement in related areas was found, compared to students who did not receive the special instruction.

Appendices

Include appendices as needed. Title each appendix item. Remember to refer to each appendix somewhere in the body of the final report.

Final Oral Examination Procedures

Appointment of the Examining Committee and scheduling the final oral examination

The examining committee will usually be identical to your advisory committee. The major professor and you are jointly responsible for finding a common date, time, and period when all advisory committee members can meet for the examination, within the deadlines established by the Graduate School. The major professor is expected to take initiative in assisting you with this procedure.

No later than three weeks prior to the examination date, the major professor will communicate the date, time, period, facilities, and equipment needs for the meeting are to be transmitted to the School of Engineering and Technology Graduate Programs Office who will confirm its receipt.

If the examining committee is to be different from the advisory committee, a replacement member must be appointed and a Request for Appointment of Examining Committee form completed and submitted to the Graduate Programs Office no less than three weeks prior to the examination date.

Following the notice of final examination date, the department will schedule an appropriate meeting room (equipment other than standard equipment offered is the responsibility of the student to arrange) and prepare the necessary forms.

The school graduate office will distribute copies of approved forms to the student and all advisory committee members.

The day prior to the final examination date, the department will forward a file of relevant student records, including "Report of the Examining Committee" form GS-7 to the major professor.

It is the major professor's responsibility to obtain all required committee member signatures and return the signed form to the school graduate office in advance of the established deadlines.

Completing the Directed Project Requirement

At the conclusion of the final oral examination, the major professor and each member of the examining committee will sign the Report of the Examining Committee form GS-7; the major professor will forward the form to the appropriate office for processing.

If the examining committee indicates any problems or deficiencies in the report, these items must be corrected before the project or report will be approved by each committee member.

In order to graduate during any semester, complete all required edits/corrections and submit

them for approval before the established deadlines.

Finally, submit a copy of the approved final project report to the Graduate Office, major professor, and each member of the examining committee requesting a copy.

Checklist of Steps in Completing a Directed Project

1. Explore a topic/problem/issue with your major professor as part of your Plan of Study development.
2. Prepare a brief preliminary proposal describing the problem, rationale, related literature, and procedures.
3. Discuss the preliminary proposal with the major professor.
4. Expand and refine the proposal, if needed, based on the major professor's suggestions.
5. Circulate the tentative proposal for advisory committee comments and revisions.
6. Secure approval signatures from all members of the advisory committee on the cover page of the final version of the proposal.
7. Distribute a copy of the approved proposal to each advisory committee member and file the original in your department's Graduate Programs Office.
8. Carry out the proposed investigation.
9. Prepare an appropriate report following the format described, including, but not limited to, a description of the problem, rationale, related literature, procedures, results and/or recommendations, and a discussion of the results/recommendations.
10. Three weeks or more before the exam date, confer with all members of the advisory committee to establish a date and time for the final oral examination. A conference room will be arranged and confirmation sent to all committee members.
11. Meet with the major professor to edit the report into a final draft.
12. Only after receiving permission from your major professor, deliver a copy of the final report to each examining committee member at least two weeks prior to the final oral examination.
13. Defend the investigation to the examining committee and other interested faculty and students during the final oral examination.
14. Correct any identified deficiencies.
15. Secure approval signatures from each member of the examining committee on the completed report.
16. Submit the original signed final project report to the School of Engineering and Technology Office of Graduate Studies, a copy to the major professor, and a copy to each examining committee member requesting a copy.

Appendix B: Forms and Templates

Purdue Master's Plan of Study (GS Form 6)

Purdue Change to the Master's Plan of Study (GS Form 13)

Purdue Report of Master's Examining Committee (GS Form 7)

Directed Project Proposal Cover Sheet

Directed Project Final Report Cover Sheet

**PURDUE UNIVERSITY
GRADUATE SCHOOL
Report of Master's Examining Committee**

Name of Candidate _____ PUID No. _____

Department _____ Department Code _____

Date Examination Held _____

Degree Sought:

- Master of Arts
- Master of Science
- Master of _____

Basis of Recommendation:

- Oral examination of the candidate
- Written examination
- Conference of the committee in the absence of the candidate

Degree Recommendation:

- Recommend that the candidate be certified to the faculty for the above degree*
- Do **NOT** recommend that the candidate be certified to the faculty for the above degree

Thesis Award (if applicable):

- Do consider nominating this student for an outstanding thesis award
- Do **NOT** consider nominating this student for an outstanding thesis award

Examination

Approve Disapprove

Examining Committee:

Graduate Faculty Identifier

<input type="checkbox"/>	<input type="checkbox"/>	_____ , Chair	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

Recorded

by: _____

Head of the Graduate Program

Date

This report should be forwarded to the Graduate School as soon as the examination is completed.

*Committee certification for a master's degree requires that all members of a three-person committee concur that the student has satisfactorily completed the examination. If the committee has four or more members, a single member may withhold his or her signature of approval.



**SCHOOL OF ENGINEERING
AND TECHNOLOGY**

INDIANA UNIVERSITY-PURDUE UNIVERSITY
Indianapolis

TITLE

A Directed Project Proposal

Submitted to the Faculty

of

Purdue School of Engineering and
Technology Indianapolis

by

Your Name

In partial fulfillment of the requirements
for the

Degree of Master of Science in
Technology

Committee Member

Approval Signature

Date

Professor Name, Chair

Related Area

Professor Name

Related Area

Professor Name

Related Area



**SCHOOL OF ENGINEERING
AND TECHNOLOGY**

INDIANA UNIVERSITY-PURDUE UNIVERSITY
Indianapolis

TITLE

A Directed Project Final Report

Submitted to the Faculty

of

Purdue School of Engineering and Technology
Indianapolis

by

Your Name

In partial fulfillment of the requirements for the

Degree of Master of Science in Technology

Committee Member

Approval Signature

Date

Professor Name, Chair

Related Area

Professor Name

Related Area

Professor Name

Related Area

Appendix C: IUPUI Technology Graduate Faculty and Identifiers

As you complete your plan of study, you will select from among Purdue Graduate Faculty members and include their identifying numbers on the Plan of Study form.

To access the current list of graduate faculty and their identifiers:

1. Go to the Graduate School database:
https://ias.itap.purdue.edu/rgs/wpu_intra.pu_dispauth
2. Type in your Purdue Career account login.
3. Click on “Graduate Faculty Appointment Information” tab in the top menu bar.
4. Click on “View Other Depts” tab.
5. Select from the drop-down menu: Campus: Indianapolis (IUPUI).
6. Select: Department: (TECH) TECHNOLOGY.

You will find the Faculty Identifier number in the second column.

The Chair of your Thesis or Directed Project committee should be associated with your area of specialization and must have a

Regular (R.1, R.2, R.3, R.3A, R.5, R.5A, R.6)

or

Special 1 (S.1)

appointment from the Purdue Graduate School.

You can find this information in the column with the word “Level” at the top.