

Comprehensive Guidelines for the EM701 Project (Option 2)

The EM701: Option 2 Project is completed during the student's final semester (or last two semesters) of the Master's program under the guidance of a Committee Chair (ETM faculty) and two ETM faculty committee members, and includes a project (work or research focused), a project proposal, an executive summary, and an oral presentation (normally presented via Blackboard Collaborate). Specific deadlines are posted within the Blackboard Learn EM701 course site for each semester in which students enroll, to complete the course requirements for the EM701 project. General EM701 project mechanics, deliverables, milestones and timelines, and grading guidelines are covered in this document.

The EM701 Project is completed on a topic of interest to the student that demonstrates the breadth and depth of knowledge gained during the Engineering and Technology Management (ETM) Master's program. The EM701 project integrates skills from several different classes and at the same time extends the student's learning as students explore in depth, the topic of choice. The project can be directly work related allowing the student to select meaningful problems from the work environment and integrating the project with day-to-day work duties. The project can also be research focused, addressing a need in the broader community. In either case, it is also important to exclude any work related proprietary information from the project deliverables.

The project requires advanced planning. Students start by identifying a project, discussing the project idea with ETM faculty, providing a description of the project by completing the **EM701 Option 2 Project Enrollment Form**, and providing the project description to faculty along with a request for a committee chair and two committee members who agree to serve on the student's committee based on their project topic described on their completed project enrollment form. It is suggested that these activities be completed mid-way through the Masters program.

The intent of the project is to encourage the student to ponder the problem, solution, and implementation where feasible within the semester(s). Projects can be a continuation of an in-class project with additional effort required to develop, integrate and finalize the project; the beginning phase of a significant study to be completed later; or a succinct project with a start, process, and conclusion. By carefully selecting the project topic, the student could work on problems of importance to their current employment on the job – providing a valuable product to the employer, or problems important to the student's personal vision, local community, future plans, or of service around the world which the student is passionate about pursuing. The student may also propose other types of projects. The project topic may be suggested by the student in consultation with your chairperson; your chairperson will also have a set of acceptable research projects for the student to choose from.

In the end, the project is a needed solution in the workplace or community where you perform research, develop an approach to address the problem or further the research, outline the plan,

implement as feasible, gather and synthesize the findings, determine the value of the solution (see Determining Project Value), and describe future research needs, next steps, and lessons learned. Whatever the topic selected, the student must be able to find ETM faculty that approve his or her project proposal and agree to serve on his or her committee.

Many of the EM courses offer opportunities to advance the student's work on their EM701 project while meeting the EM course assignment objectives. Therefore, before enrolling for the EM701: Option 2 Project course, the project may already be implemented or is just in the process of being completed based on previous EM course work. The **EM701 Option 2 Project Enrollment Form** which contains the committee selection and initial project description, must be completed before the student can enroll in the EM701 Option 2: Project course.

The first course deliverable is a complete EM701 Option 2: Project Proposal as outlined in the **EM701 Option 2 Project Proposal Outline**. The project proposal is typically completed prior to the student completing the final implementation of the project. There are two options for completing the project proposal deliverable depending on how much time the student needs to complete the actual project itself (one or two semesters). For the two-semester option, students have the option to complete the project proposal in an initial EM701 Option 2: Project semester, enrolling for 1 credit, submitting the full project proposal by the fifth week (see Chair for schedule extension requests for project proposal only) and then completing the submission and feedback cycle with their faculty committee prior to their final semester. This allows the student more time to complete the actual project between the completed project proposal and the submission of the final executive summary and oral presentation. For the two-semester option, after the initial semester, students would sign up for a second and final EM701 Option 2: Project course, enrolling for 2 additional credits (for a total of 3 credits) during which students will re-submit their project proposal from the first semester for completeness (any updates should be noted) and then follow the final semester schedule. For the one semester option, where the student has defined and completed a majority of his or her project work on their EM701 project as previously described, working with their Chair and committee, well before their final semester of the ETM Masters, students enroll for 3 credits, and complete all three EM701: Option 2 project deliverables in their final semester. Under the one semester option, the full project proposal should be completed by the fifth week of the final semester of EM701 Option 2: Project (see Chair for schedule extension requests for project proposal only). In either scenario, the EM701 project must be completed prior to midway through the final semester of EM701 Option 2: Project in order to complete the executive summary and final oral presentation deliverables by their due dates which fall about midway through the final semester.

The second Project course deliverable is a EM701 Option 2: Executive Summary as outlined in the **EM701 Executive Summary Guidance and Tips**. The Executive Summary is a several page document that summarizes the purpose, goals, approach, findings, and synthesis of the project. It highlights the major points of the project, and it describes any results, conclusions, or

recommendations and your thoughts on applicability of your work to current business and technology events. Reading this summary should give any evaluator (your committee) a clear idea of the problem you are tackling, your approach to solving the problem, roughly where you are in the process, and your specific role (if your project is in the context of a larger company project). Consider it a succinct overview of your project effort. See ***EM701 Executive Summary Guidance and Tips*** for an executive summary notional outline.

The third Project course deliverable is a EM701 Option 2: Project Presentation. Students prepare a 20-minute oral report via BB Learn. The presentation is performed by the student to his or her selected committee, followed by questions and answer portion. The session is typically open to all faculty, student, the company (if applicable) and the community (if applicable). See the remaining sections for more detail in each area.

EM701: Option 2 Project Mechanics

A. Project Enrollment: complete the project description

Provide a solid project description (see ***EM701 Option 2 Project Enrollment***) prior to finding a committee chair interested in your project and committee members that can support your topic.

B. Select a committee

Discuss your proposed project with several faculty members. Typically, this will be mid-way through the program or shortly after finishing the fourth course in the program. Use these discussions to probe the project topic dimensions and to identify faculty interest. It is required to email the ***EM701 Option 2 Project Enrollment*** to the faculty (initially the Chair and committee members will be pending). The description states the intention of your project and provides a description of what you will do and why you will do it, and the email requests a Chair and two committee members. At this point you should be aware that the Chair is quite interested in your project. The Chair should have talents that can contribute to your expected needs and have the time to communicate with you in a timely manner. A clearly written description will contribute to a timely and successful completion of your project. Submit the completed ***EM701 Option 2 Project Enrollment*** to the ETM [academic coordinator](#) once you have your committee, and you and your committee have agreed on the chosen project.

C. Choose a mentor (optional)

It is often beneficial to have a Mentor (strongly suggested for students supported by their company whose project is to be an application project implemented by the company). A mentor

is a person with a master's degree or better who has completed a thesis or significant research project. The mentor is ideally from near the same area where your project efforts focus. The mentor is not the Chair, nor is s/he part of the Committee. ETM does not provide the mentor. The mentor gives encouragement, helps find leads, maintains topic validity, assists in finding resources, etc. If you have a mentor, add your mentor to your communications.

D. Enroll in EM701: Option 2 Project (one or two semesters)

Based on your progress on the EM701 project earlier in the ETM program, choose whether to enroll for one or two EM701 semesters in order to complete your EM701 project by the required deadlines. Two semester enrollees complete the EM701 Project Proposal in the first semester (1 credit) and the Executive Summary and Oral Project Presentation in the second semester (2 credits). One semester enrollees complete all three deliverables in one semester (3 credits). Students who have not made early progress on an EM701 project (for example as part of EM courses taken throughout the program) are strongly encouraged to consider enrolling in the EM701: Option 2 project over two semesters.

E. Complete the Project Proposal

Complete a substantial amount of the needed work – including detailed up-front planning, research and problem definition, background research, research approach, and preliminary findings – before submitting the project proposal. See the *EM701 Option 2 Project Proposal Outline (separate file)*. The project proposal is a living document that may change between the initial submission and the final completion of the project. The project proposal includes the project description and plan. In the project description, students provide the purpose of their project along with background, describe how they are going to carry out their project work, provide a description of the method/approach they intend to use, and discuss their anticipated findings. Students post their completed project proposal in week five of their first semester of EM701, whether they are completing the project in one or two semesters of EM701.

F. Complete the Executive Summary and Oral Presentation

Having already completed the bulk of the legwork for the actual project or research to be completed, use the final semester to complete the project and prepare the executive summary and oral presentation (documenting and analyzing the findings). In the final semester, students submit a several page Executive Summary that summarizes the purpose, goals, approach, findings, and synthesis of his or her project work, two (2) weeks prior to the student's scheduled oral presentation. Students prepare a presentation which they present in a 20-minute (hard limit) timeslot to the ETM faculty team, followed by questions from faculty, a private committee deliberation (while students wait in a break room), and a final meeting on the presentation

outcome. Students also provide a title, their committee Chair and members, and a project abstract limited to 350 words (final updated abstract from the project proposal) that upon the student's successful completion of the project, may be posted to the ETM website. These activities are completed about midway through the final semester of EM701.

G. Communicate with your Chair and Committee

Establish standards for communicating with your Chair and committee members during your EM701 semester(s). The recommendation is to communicate bi-weekly with your project committee chair and send monthly progress updates to your committee. The Chair is your major focus and director for the project and may be following several projects at once; it's up to the student to keep the chair up to date on progress, notify the Chair and committee when you have posted your deliverables in the BB Learn class, and meet the deadlines posted. Student success is enhanced with an informed committee and involved Chair.

EM701: Option 2 Project Deliverables

Prior to Enrollment

See **EM701 Option 2 Project Enrollment** (separate file). The project enrollment identifies your Chair and committee members, mentor (optional), tentative graduation date, proposed topic or title and project description. Students should post their completed project enrollment form in the first week of the EM701 semester. Note that the project committee listed on the **EM701 Option 2 Project Enrollment Form** must match the committee listed on the student's Program of Study (POS). If there is a discrepancy, the student must submit a Change of Committee form to the ETM [academic coordinator](#).

1st / Final Semester Project Proposal*

See the **EM701 Option 2 Project Proposal Outline** (separate file). The project proposal is a living document that may change between the initial submission and the final completion of the project. The project proposal includes the project description and plan. In the project description, students provide the purpose of their project along with background, describe how they are going to carry out their project work, provide a description of the method/approach they intend to use, and discuss their anticipated findings. Students post their completed project proposal in week five of their first semester of EM701, whether they are completing the project in one or two semesters of EM701. Students update the abstract in their project proposal when the project is complete for posting to the ETM website.

Final Semester Executive Summary*

A several page Executive Summary that summarizes the purpose, goals, approach, findings, and synthesis of his or her project work, is provided by the student two (2) weeks prior to the student’s scheduled oral presentation.

Final Semester Project Presentation*

An oral report of the EM701 project is presented midway through the final EM701 semester. The Committee grades the oral presentation and is required to attend the oral presentation. The audience includes the full committee and the mentor (if applicable), and may include peer students and appropriate individuals representing the student’s firm. However, per WSU policy, only faculty members may ask questions during the final oral presentation. Arrangements should be made early; see posted deadlines. Please note that the final semester of EM701 for the project option must be in the Spring or Fall semester.

*Be sure to include your academic integrity statement on the EM701 artifact title pages:

I commit myself to Washington State University's high standards to uphold academic honesty and scholarly values as established by the WSU's Standards of Conduct. I affirm that I have not given or received any unauthorized assistance on this assignment/examination, that the work product presented here is the work of the author(s) [myself or all team members listed], and that all materials from other sources (including books, articles, Internet, or other media), whether quoted or paraphrased, have been properly cited.

Typing or electronically signing my name above serves as my signature

*Current Job Title *Employer *Future email (*optional)

EM701: Option 2 Project Timeline

Prior to initial enrollment:

- Complete the *EM701 Option 2 Project Enrollment*
- Faculty agree to be Chair or members of your committee and approve project topic

First / Final Semester EM701 (must be Spring or Fall term):

- Meet periodically with the Chair; provide Committee a monthly summary

- Complete the EM701 Project Proposal (see **EM701 Option 2 Project Proposal Outline**); submit by the end of the fifth week; update abstract to reflect final project
- Chair and committee approve and provide feedback on the Project Proposal
- Execute plan; keep records of results; collect and analyze preliminary data

Final Semester EM701 (must be Spring or Fall term):

- Complete execution of project plan; document efforts, including success, and failures
- Prepare final written executive summary at least two weeks before final presentation
- Prepare and present oral presentation midway through final semester

EM701: Option 2 Project Grading

The Chair is responsible for grading the EM701 project. The Committee as a whole accepts or rejects the final project. If the student does not make sufficient progress in their first EM701: Option 2 Project semester, it is within the purview of the committee to require the student to switch to the EM701: Option 1 Case Study Exam course the following semester, and/or to award a “U” grade for the current semester (S-Satisfactory or U-Unsatisfactory). Two semesters of “U” grades will be the basis for removing a student from the Graduate School and program.

Grading criteria include (as a minimum):

- Effective planning and execution
- Quality of process development
 - Demonstration of depth and breadth criteria
 - Completeness of research/application/academics applied
 - Appropriateness of effort in relation to topic
- Quality of written deliverables and oral presentation
- Consideration of comments by mentor and committee members

Final Notes: Buffer your efforts. Pay attention to deadlines. The EM701 project demonstrates your ability to integrate and blend many different management skills from a variety of courses towards a significant problem. This is a test of management skills that will be of value to you and your employer or the community. Contributions may include: elimination of costly problems, increased value of the firm, improved processes, easier management, better quality, reduced flow time, increased profits, improved management control, or other matters of importance to the firm, the local or regional community, or the world.