SYLLABUS aps1001h PROJECT MANAGEMENT Summer 2021

INSTRUCTOR: Keith Ramon Farndale (keith.farndale@utoronto.ca)

OFFICE HOURS: By appointment, then quite available by telephone, MS Teams, etc.

ONLINE: Asynchronous online.   **PREREQUISITE:** None.

COURSE DATES: July 5 to August 23, 2021.

COURSE OVERVIEW: Project management (PM) has evolved from an accidental job title into a chosen profession, especially for engineers. (This course started as an offering to graduate engineers; we now welcome students in other masters degrees with STEM undergrad degrees.) Even if you choose to follow a strictly technical career path, you will almost certainly work on projects, and this course can help you understand that context. Employers value competence in project management. This course covers most of the knowledge areas of the globally recognized PM Body of Knowledge: scope, cost, time, risk, resources, stakeholders, communication and procurement management. We take a practical applied approach. We include video lectures, reference to web pages, text readings. We have team papers and presentations on "lessons learned" from actual projects. We attract a mix of part-time students from the working world, and full-time students with little work experience.

COURSE OBJECTIVES:
• Understand the common framework and terminology of project management.
• Be better able to fit into a formal project environment, or to manage your own less formal projects.
• Add techniques to your PM "toolbox", increasing your value to your organization and the marketplace.
• Increase your own PM "lessons learned" by sharing experiences with others.
• Gain exposure to Microsoft Project software.
• Optional: With further preparation, be prepared to take a project management designation examination.

REQUIRED TEXTBOOK: Part 1 of *A Guide to the PM Body of Knowledge (PMBOK® Guide) 6th ed*, Project Management Institute, 2017. Easily available. A PDF file can be accessed in the UofT Libraries but you may not download or print.

TEAMS: Three to four students in a team. It is to your advantage to self-form into groups early. It may be useful to team with people from your own discipline so you can choose a relevant project. You can solicit members in Quercus Discussions. Because of drop-outs, I finalize teams just after the course drop date.

OUTLINE: Modules 5, 7, and 9 have more content than others.

Jun 28, Course content "Module 1 Introduction" will be made available on the portal.
Jul 5, Nominal start of course.
Jul 5, Course add deadline, but you may ask instructor for late enrolment.
Jul 9, 2 Integration Management
Jul 12, Course drop date
Jul 13, 3 Stakeholder Management
Jul 16, 4 Scope Management
Jul 16, Submit your comments on previous papers, via Quercus, due 11:59 pm Eastern Time.
Jul 17, Final date for team formation. Any ungrouped students assigned into teams.
Jul 20, 5 Time Management
Jul 23, 6 Organizing for Projects
Jul 27, Mid-Term Exam to end of module 5, at 12:00 pm noon Eastern Time, online, 70 minutes long
Jul 27, 7 Cost Management
Jul 30, 8 Procurement Management
Jul 30, Microsoft Project MPP file due 11:59 pm Eastern Time, one per team, by email to instructor.
Aug 3, 9 Risk Management
Aug 6, 10 Communications Management
Aug 10, 11 (Human) Resources Management

Aug 13, 12 Wrap-up
Aug 6-10, Video Presentations
Aug 12, Team paper due 11:59 pm, in PDF, by one student through Quercus.
Aug 17, Final Exam at 12:00 pm noon, online, 70 minutes long.
Aug 23, **Individual paper** due 11:59 pm, in PDF, through Quercus.
Sept 3, Instructor will submit final grades.

QUERCUS LEARNING PORTAL: If you are having trouble, contact q.help@utoronto.ca.

BB COLLABORATE: Available through Quercus. The "Course Room" is always open. We use it for our team video presentations. Your team may use it for meetings and to practice your video presentation.

YOUR EMAIL: You must be able to receive email sent to your utoronto.ca address.

MARKING SCHEME:
3% Review and Comments, via Quercus, more info below.
9% Mid-Term Exam, online in Quercus, more info below.
3% for team MPP file, submitted by just one team member via email, displaying WBS and schedule.
3% for participation in Quercus discussion boards.
35% Team Project, submitted by just one team member via Quercus, more info below
5% Video Presentation, more info below.
28% Individual Paper, via Quercus, more info below.
3% for completion of the Multiple-Choice Tests within Quercus. Note that your actual scores on the tests do not matter.
11% Final Exam, online in Quercus, see more info below.

REVIEW & COMMENTS ON PREVIOUS PAPERS: I will provide a link to a folder with several previous team papers of differing quality. Please select and read two of them and submit an individual short write-up with your observations. About 800 words sent in a DOC or PDF via Quercus. Surprises, or similarities among the papers, or other observations. You can also comment if you think the papers do or do not meet my specification for team papers. No special format, except of course use quotation marks if quoting from the papers. No need to refer to other sources.

This allows us all to learn from other teams' papers, and gives you a chance to see good and not-so-good examples of what I am looking for.

Review & Comment	Description
< 2.4 / 3	▪ A bit thin.
2.4 / 3	▪ Good content, critical thinking.
3 / 3	▪ Beyond expectations.

MID-TERM AND FINAL EXAMS: Open book, online, short answer and long answer, a few multiple-choice, bullet points are encouraged, time-limited questions.

MICROSOFT PROJECT: The popular software Microsoft Project is available to all engineering students through your Microsoft Azure account. I will arrange an Azure account for non-engineering students, and will announce the directions to all students.

There is no Microsoft Project For Mac. But you can use the free version of ProjectLibre (www.projectlibre.com), an open source application intended as a clone of Microsoft Project. It has a Mac version. Project Libre may not have the usability or full features of Microsoft Project but has sufficient for our purposes. Save your file as an XML.

MPP FILE SUBMISSION:
Each team submits an MPP (Microsoft Project) file by email, displaying a WBS and schedule for the work your team will do on your own project to research, write and submit your team paper. (It is NOT a retroactive plan for the Boeing 787 or other project you have decided to study.) So you can actually prepare your WBS and schedule without even having chosen your subject. I will look for the following:

- Include your team letter designation in the filename.
- The WBS hierarchical structure, and the WBS column inserted into the display.
- The schedule should be based on a critical path network. In Microsoft Project terms, with "links" between the tasks.
- No links at the summary task level please. It is better practice to put the links between the bottom-level tasks.
- Most tasks should be "auto-scheduled", not "manual scheduled".
- Most tasks should be "as soon as possible". You may have report submission tasks or milestones which have "must finish on" or "finish no later than" constraints. (Double-click on the task name, select Advanced tab.)
- Resource names assigned to most of the bottom-level tasks. Do not worry about "overallocation".
- Start the project with a milestone ♦, finish with a milestone ♦.

Tips: When first opening a new Microsoft Project file, go to File, Options, Schedule, Scheduling options, and ensure it is set to Auto Scheduled. I suggest to never select "effort-driven" unless you are quite familiar with MS Project and intend to use this method.

I will look for the above points. I will test it by dragging a task to the right, and seeing subsequent dates change in response.

PARTICIPATION: Points are gathered (1) from participating in the Quercus discussion board, and (2) some from attending at least three other teams' video presentations.

Discussion Board: You will use Quercus for asking questions (and proposing answers) on course content and administration, and for class discussions initiated by me.

You will be required to engage in some of the discussions. At the time of the mid-term, I will evaluate discussion participation up to that time. And then at end of the term, I will re-evaluate participation to date.

TEAM PROJECT PAPER: See separate document "Requirements for Team Project".

VIDEO PRESENTATION: Presentation of your team project findings to me using BB Collaborate. A pre-recorded video with duration of 12 to 15 min followed by live Q&A. Other students may observe.

Each team member shall perform part of the presentation. I often ask the following questions, addressed to individual team members.

Q. Is there a larger issue behind these lessons (positive or negative), a root cause?

Q. "If there was a major supplier, what contract payment type was used?"

Q. "How did the project seem to address risks?"

Q. "Overall, would you consider it successful and why?"

Q. "If you consider the project to be a failure, who is to blame?"

It is better to say something like "Our research did not reveal the answer to that question…" than to stumble and guess. If you do not have time for all your lessons, just say "and there are more lessons in our written paper". My feedback may be useful to you in polishing your written paper. I will score as follows.

Video Presentation	Description
1 - 2 Mediocre	▪ Poorly developed aids (slide font too small, too much text). ▪ Not practiced, some repetition, mumbling or unclear explanations. ▪ Information poorly communicated, lacking clear introduction & conclusion. ▪ Clumsy use of the technology. (Be sure to practice the technology.)
3 - 4 Very good	▪ Well-developed aids, organized discussion. ▪ Practice evident, good tone, posture, vocabulary. ▪ Clearly stated background and lessons.
4.5 - Excellent	▪ Very professional presentation, clear, concise, appropriately animated. ▪ As if a presentation to a corporate client. ▪ Grabs our interest. Excellent answers to questions.

INDIVIDUAL PAPER: A paper describing how you can and will use the project management framework and tools from the course to manage your future projects or sub-projects. For less-experienced students I recognize that your paper may be speculative for the future.

Or how you will NOT use the tools and frameworks. You may certainly challenge "conventional wisdom" and come up with alternative approaches. I certainly do not need everyone to agree with my view or the text's view. You should include something from several or most of our knowledge areas. Be as specific as you can about how it can apply in your current or anticipated environment – work, academic, even personal.

For example, some of you may like to prepare and submit a plan for an upcoming project which could be a major house renovation, your PhD research, an internship, or a real work project. Some of you may start with a project in your workplace which did or did not go well, and you analyze how you could manage a similar project better in future.

The body of the report is 6-7 pages. They are not required, but if you draw on others' ideas of course you will use a reference list (cited in your paper) or bibliography (generally used but not cited) and possibly appendices of tables and figures (which must be discussed in the body text). No need for executive summary or table of contents. The body of the report should be double-spaced, Times New Roman 12 or similar. Zero tolerance for plagiarism. Please write in the "first person" using "I". Of course I will keep confidential.

You can certainly discuss with me how you will approach this assignment, or send me a one-page outline.

Individual Paper	Description
70-75%	Acceptable but uninspired. Less content.
78%	Good quality but mainly historical.
80% (most scores are here)	Good quality, future-oriented, broad and deep content, concrete applications.
85-90% (very few of these)	Wow!

ANTI-PLAGIARISM SUBMISSION SOFTWARE: Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

Turnitin "green" is not necessarily good enough.

ACADEMIC INTEGRITY: All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour and citation methods, please refer to resources including http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize, http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf.

ACCOMMODATION: Students with diverse learning styles and needs are welcome in the course. If you have a disability or a health consideration that may require accommodation, please approach the Accessibility Services Office (http://www.studentlife.utoronto.ca/as). They are available by appointment to assess needs, provide referrals and arrange appropriate accommodations.

WRITING SUPPORT: Work that is not well written or grammatically correct will not y be eligible for a grade in the A range, regardless of its quality in other respects. You may use the free writing support provided by the Graduate Centre for Academic Communication https://www.sgs.utoronto.ca/resources-supports/gcac/, for both native and non-native speakers of English.

EQUITY, DIVERSITY AND INCLUSION: U of T is committed to equity, human rights and respect for diversity. All members of this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against persons or communities.

RELIGIOUS OBSERVANCES: Please contact me about any anticipated conflicts between religious observances and course obligations such as tests and presentations.

FAMILY CARE RESPONSIBILITIES: U of T strives to provide a family-friendly environment. If you are a student parent or have family responsibilities, you may wish to visit www.familycare.utoronto.ca.