SYLLABUS - aps1001h PROJECT MANAGEMENT, Summer 2020

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

OFFICE HOURS: By appointment via Quercus or email. Then I can be quite available by telephone, MS Teams, etc, but not usually in person.

PREREQUISITE: None.

FORMAT OF COURSE: Asynchronous online.

COURSE DATES: July 2 to August 24, 2020.

COURSE OVERVIEW: Project management (PM) has evolved from being an accidental job title into being a chosen profession, especially for engineers. (This course started as an offering to MEng and MASc students; we now also 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 be working on projects, and this course can help you understand that context. Employers very much value competence in project management. This course covers most of the knowledge areas and processes of the globally recognized PM Body of Knowledge: integration, scope, cost, time, risk, human resources, stakeholders, communication and procurement management (but not quality management). We take a practical, applied approach. This online course includes video lectures, reference to web pages, text readings. We will have team papers on "lessons learned" from actual projects. We attract a mix of part-time students from the working world of projects, together with 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 reading, be prepared to take a project management designation examination.

REQUIRED TEXTBOOK: *A Guide to the PM Body of Knowledge (PMBOK® Guide) 6th ed*, Project Management Institute, 2017. It is always available in the UofT bookstore, and easily available from on-line bookstores. A PDF file can be downloaded from the UofT libraries.

OTHER M.ENG. COURSES RELEVANT TO PROJECT MANAGEMENT: I recommend one of the MEng leadership courses (iLead program), Management of Innovation, Human Resources Management. Financial Engineering or Financial Management helps understand the business case supporting a project.

TEAMS: Three to four students in a team. It is best for students to self-form into groups very early in the course. But because of possible drop-outs, we cannot finalize teams until just after the course drop date.

OUTLINE: Note that modules 5, 7, and 9 have significantly more content than others. Textbook and other readings are listed in an item in Module 1, and are duplicated in the first page of the notes for module 1.

Jun 26, Course content "Module 1 Introduction" will be made available on the portal.
Jul 2, Nominal start of course
Jul 7, 2 Integration Management
Jul 11, 3 Stakeholder Management
Jul 13, Course drop date, and final date for team formation. Any ungrouped students assigned into teams.
Jul 14, 4 Scope Management
Jul 14, Submit your comments on previous papers, via Quercus, due 11:59 pm Eastern Time.
Jul 18, 5 Time Management

Jul 21, 6 Organizing for Projects
Jul 24, Mid-Term Exam to end of module 5.
Jul 25, 7 Cost Management
Jul 28, 8 Procurement Management
Jul 30, Microsoft Project MPP file due 11:59 pm Eastern Time, one per team, by email to instructor.
Aug 1, 9 Risk Management
Aug 4, 10 Communications Management
Aug 8, 11 (Human) Resources Management
Aug 11, 12 Wrap-up
Aug 14, **Team paper** due 11:59 pm, in PDF, through Quercus.
Aug 17, Final Exam at 12:00 pm noon, online 110 minutes long.
Aug 24, **Individual paper** due 11:59 pm, in PDF, through Quercus.

QUERCUS: If you are having trouble with Quercus, contact the Quercus help team, q.help@utoronto.ca.

YOUR EMAIL: It is required that you be able to receive email at your utoronto.ca address. Without it, I cannot send you an email and Quercus cannot send you an announcement or discussion.

MARKING SCHEME:
3% Submission, via Quercus, more info below..
6% Mid-Term Exam, online via Quercus, more info below.
3% for team MPP file, submitted by just one team member via email, displaying WBS and schedule.
5% for participation in Quercus discussion boards.
30% Team Project, submitted by just one team member via Quercus, more info below.
5% Video Presentation, more info below.
35% Individual Report, via Quercus, see more info below.
3% for completion of the Multiple-Choice Tests within Quercus. Note that your actual scores on the tests do not matter.
10% Final Exam, online via Quercus, see more info below.

SUBMISSION: 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, etc. You can also comment if you think the papers you reviewed do or do not meet my specification for team papers. No special format, except of course use quotation marks if quoting from the papers.

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.

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 can arrange an Azure account for non-engineering students,.

Q: Can we download Microsoft Project for Mac?

A: No, there is no version for Mac. You can use an emulator to run Windows software, such as Parallels for Mac. Or, as someone says, "you can just remote control a computer in the engineering computer labs. They all have Microsoft Project in there." Or you can find Microsoft Project in computer labs in the Mississauga campus. Or you can use the free version of ProjectLibre (www.projectlibre.com), an open source PM software system intended as a replacement for Microsoft Project. It has a Mac version. Project Libre may not have the usability or full features of Microsoft Project, but I will allow you to use it.

MPP FILE SUBMISSION:
Each team is to submit an MPP (Microsoft Project) file by email to the instructor, displaying a WBS and schedule for the work your team will do on your own project to research, write a report, and submit. (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 between summary tasks please. It is better practice to put them 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 or all of the bottom-level tasks.
- Start 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 never select "effort-driven" unless you are quite familiar with MSP and intend to use this method.

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

DISCUSSIONS BOARD: We will be using *Quercus* for asking questions (and proposing answers) on course content and on course administration, and for class discussions. For your questions, you will be able "Start a New Discussion" and get good discussion and answers from classmates first, and then from myself. I will also pose questions on the discussions board.

You will be required to engage in some of the course content discussions. At the time of the mid-term, I will evaluate discussion board participation up to that time. And then at end of the term, I will re-evaluate participation for the whole term. Don't try to leave it all until the end!

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

INDIVIDUAL REPORT: A paper describing how you can and will use the project management framework and tools from the course to manage your current or future projects or sub-projects. For less-experienced students I recognize this 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, or to observe relevant factors. I certainly do not need everyone to agree with my view or the text's view.

Be specific if you can about how it can apply in your current or anticipated environment. The body of the report is 6 pages, followed by possible reference list or bibliography and possible appendices of tables and figures. If you use tables and figures, they must be discussed in the body text. The body of the report should be double spaced, Times New Roman 12 or similar. Zero tolerance for plagiarism. Use a reference list (all cited in your paper) and/or a bibliography (generally used but not cited) in your paper. I recommend you write in first person (using "I", "we").

You may certainly discuss with me how you will approach this assignment.

VIDEO PRESENTATION: Presentation of your team project findings to me using MS Teams or BB Collaborate. Duration 12 to 15 min plus Q&A. Some other students will be invited to attend.

Each team member shall perform part of the presentation. Try to be very well polished, as if it is a corporate presentation to a very important client. I will score for visual aids (such as, but not necessarily, PowerPoint), apparently practiced, clear introduction and crisp conclusion, interesting to audience, communicating good information, ability to answer questions. By the way, I often ask some of these questions, "If there was a major supplier, what contract payment type was used?" "How did the project address risks". Overall, would you consider it successful and why?"

My questions will be addressed to individual team members. By the way, it is better to say something like "Our research did not reveal the answer to that question…", etc, than to stumble and guess.

Video Presentation	Description
1-2 mediocre	▪ Poorly developed aids (slide font too small, too much text, poor props) ▪ Not practiced, some repetition, mumbling or unclear explanations ▪ Information poorly communicated, lacking clear introduction & conclusion
4 very good	▪ Well developed aids, organized discussion ▪ Practice evident, good tone, posture, vocabulary ▪ Clearly stated background, objectives, analysis, conclusions
5 excellent	▪ Very professional presentation, clear, concise, appropriately animated ▪ Audience gained PM knowledge, topic grabbed their interest ▪ Excellent answers to questions

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.

CODE OF BEHAVIOR ON ACADEMIC MATTERS: Please refer to the "Academic Integrity" item on the right hand side of Quercus course page. For information on possible sanctions in the case of academic misconduct, you may consult the Code of Behaviour on Academic Matters: http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/ppjun011995.pdf. **How Not to Plagiarize:** http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize.

ACCOMMODATIONS: Students with diverse learning styles and needs are welcome in this course. If you have a disability or a health consideration that may require accommodations, please approach the Accessibility Services Office (http://www.studentlife.utoronto.ca/as) as soon as possible. The staff are available by appointment to assess needs, provide referrals and arrange appropriate accommodations. The sooner you let them know your needs, the quicker we can assist you to achieve your course learning goals.

WRITING SUPPORT: Work that is not well written and grammatically correct will not usually be eligible for a grade in the A range, regardless of its quality in other respects. You may make use of the writing support provided to graduate students by the SGS Graduate Centre for Academic Communication (https://www.sgs.utoronto.ca/resources-supports/gcac/). GCAC offers free support designed for both native and non-native speakers of English: non-credit courses, single-session workshops, individual writing consultations, writing intensives, and further resources for academic writing and speaking.