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## Course Syllabus

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### Course Information

OPRE 6376.PW1

Advanced Project Management and Simulation

Fall 2016

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### Professor Contact Information

Dr. Bill Hefley

[William.Hefley@utdallas.edu](mailto:William.Hefley@utdallas.edu)

Dr. Jeff Hicks

[jeff.hicks@utdallas.edu](mailto:jeff.hicks@utdallas.edu)

Dr. Jim Szot

[jimszot@utdallas.edu](mailto:jimszot@utdallas.edu) (grading instructor of record)

Office hours by appointment – please email to schedule an appointment

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### Course Pre-requisites, Co-requisites, and/or Other Restrictions

OPRE 6375 Project Execution and Closeout

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### Course Description

This course explores advanced topics in project management including project organizational competence and maturity models, project portfolio management, program management, PM offices, alternate project management methodologies, and leadership & management perspectives. It includes a simulation modeling all five of the project management process groups and concludes with an introduction to the Business Core Phase of the degree program.

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### Student Learning Objectives/Outcomes

Students will demonstrate the ability to

- Describe the processes for aligning an organization's projects with its strategic objectives
  - Describe techniques used to assure organizational processes are effective and efficient
  - Describe the characteristics, advantages, and disadvantages of alternate project management methodologies
  - Use a behavioral instrument as a tool to improve project team effectiveness
  - Plan and execute a simulated project
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### Required Textbooks and Materials

#### *Articles and Case Studies*

##### *Portfolio and Program Management*

Australian Institute of Project Management. (2014). AIPM Professional Competency Standards for Project Management, Part F – Certified Practicing Portfolio Executive (CPPE) [Available from [https://www.aipm.com.au/documents/aipm-key-documents/aipm\\_portfolio\\_executive\\_professional\\_competency\\_s.aspx](https://www.aipm.com.au/documents/aipm-key-documents/aipm_portfolio_executive_professional_competency_s.aspx)]

Cooper, R., & Edgett, S. (1997). Portfolio management in new product development: Lessons from the leaders--I. *Research Technology Management*, 40(5), 16-28. [available online in UT Dallas McDermott Library]

Cooper, R., & Edgett, S. (1997). Portfolio management in new product development: Lessons from the leaders--II. *Research Technology Management*, 40(6), 43-52. [available online in UT Dallas McDermott Library]

Tsaturyan, T. & Müller, R. (2015). Integration and governance of multiple project management offices (PMOs) at large organizations. *International Journal of Project Management* 33, 1098–1110 [available online in UT Dallas McDermott Library]

#### *Project Management Office (PMO)*

Aubry, M., Müller, R., Hobbs, B., & Blomquist, T. (2010). Project management offices in transition. *International Journal of Project Management*, 28(8), 766-778 [available online in UT Dallas McDermott Library]

Ward, J. & Daniel, E. (2013). The role of project management offices (PMOs) in IS project success and management satisfaction. *Journal of Enterprise Information Management*, 26(3), 316 – 336. [available online in UT Dallas McDermott Library]

Sheives, T. and Barton, S (2011). Only at 7-Eleven – A PMO Case Study. Retrieved from <http://jindal.utdallas.edu/files/11SheivesBarton-Paper.pdf>

#### *Agile*

The Agile manifesto, <http://agilemanifesto.org/>

Cohen, M. and Schwaber, K. (2003). The Need for Agile Project Management. *Agile Times*, 1 (1/03). Retrieved from <http://www.mountaingoatsoftware.com/articles/14-the-need-for-agile-project-management>

Scrum Alliance. (2015). The 2015 State of Scrum Report. Westminster, CO: Scrum Alliance. Retrieved from [https://www.scrumalliance.org/scrum/media/scrumalliancemedial/files\\_and\\_pdfs/state\\_of\\_scrum/scrum-alliance-state-of-scrum-2015.pdf](https://www.scrumalliance.org/scrum/media/scrumalliancemedial/files_and_pdfs/state_of_scrum/scrum-alliance-state-of-scrum-2015.pdf)

Axelos. (2016). The AXELOS 2016 PRINCE2® Report, April 2016 (Agile section, pages 41-51). Retrieved from <https://www.axelos.com/Corporate/media/Files/AXELOS-PRINCE2-Report-2016.pdf>

J. Sutherland and N. Ahmad. (2011). How a Traditional Project Manager Transforms to Scrum: PMBOK vs. Scrum, presented at Agile 2011, Salt Lake City. Retrieved from <https://www.scruminc.com/scrumpapers/>

#### *Other Certifications*

PMI. (2016). Program Management Professional (PgMP)®. Retrieved from <http://www.pmi.org/certification/program-management-professional-pgmp.aspx>

PMI. (2016). Portfolio Management Professional (PfMP)®. Retrieved from <http://www.pmi.org/certification/portfolio-management-professional-pfmp.aspx>

- Axelos. (2016). What is Portfolio Management? Retrieved from <https://www.axelos.com/best-practice-solutions/mop/what-is-mop>
- PMI. (2016). PMI Agile Certified Practitioner (PMI-ACP)®. Retrieved from <http://www.pmi.org/certification/agile-management-acp.aspx>
- Scrum.org. (2016). Certification Assessments. Retrieved from <https://www.scrum.org>
- Scrum Alliance. (2016). Certifications in Scrum, the leading framework for Agile software development. Retrieved from: <https://www.scrumalliance.org/certifications>
- Axelos. (2016). PRINCE2 Qualifications. Retrieved from <https://www.axelos.com/qualifications/prince2-qualifications>
- Axelos. (2016). PRINCE2 Agile Qualification. Retrieved from <https://www.axelos.com/qualifications/prince2-qualifications/prince2-agile>
- International Project Management Association. (2016). About Certification: Moving PM Competence Forward. Retrieved from <http://www.ipma.world/certification/>

*Books (purchased by student or available online):*

- Perry, M. (2009). *Business driven PMO setup: Practical insights, techniques and case examples for ensuring success*. Fort Lauderdale, FL: J. Ross Publishing. ISBN 978-1-60427-013-6 [available as eBook in UT Dallas McDermott Library]
- Project Management Institute. (2013). *Organizational project management maturity model (OPM3®)* (3<sup>rd</sup> ed.). Newtown Square, PA: Project Management Institute. ISBN 978-1-935589-70-9 [PMI Standards]
- Project Management Institute. (2013). *The standard for portfolio management* (3<sup>rd</sup> ed.). Newtown Square, PA: Project Management Institute. ISBN 978-1-935589-69-3 [PMI Standards]
- Project Management Institute. (2013). *The standard for program management* (3<sup>rd</sup> ed.). Newtown Square, PA: Project Management Institute. ISBN 978-1-935589-68-6 [PMI Standards]
- Sutherland, J. (2012). *The scrum papers: Nuts, bolts, and origins of an agile process* (version 1.1). Retrieved from [https://www.researchgate.net/publication/242437392\\_The\\_Scrum\\_Papers\\_Nuts\\_Bolts\\_and\\_Origins\\_of\\_an\\_Agile\\_Process](https://www.researchgate.net/publication/242437392_The_Scrum_Papers_Nuts_Bolts_and_Origins_of_an_Agile_Process)

*Other Useful Resources:*

- Project Management Institute. (2016). *Governance of portfolios, programs, and projects: A practice guide*. Newtown Square, PA: Project Management Institute. ISBN 978-1-62825-088-6 [PMI Standards]
- Project Management Institute. (2014). *Implementing organizational project management: A practice guide*. Newtown Square, PA: Project Management Institute. ISBN 978-1-62825-035-0 [PMI Standards]
- Kendall, G. I. and Rollins, S. C. (2003). *Advanced project portfolio management and the PMO*. Boca Raton, FL: J. Ross Publishing. ISBN 1-932159-02-9

Letavec, C. J. (2006). *The program management office: Establishing, managing and growing the value of a PMO*. Boca Raton, FL: J. Ross Publishing. ISBN 978-1932159592

Rubin, K. (2012). *Essential Scrum: A Practical Guide to the Most Popular Agile Process*. Addison-Wesley Professional; ISBN: 978-0137043293

Chin, G. (2004). *Agile project management: How to succeed in the face of changing project requirements*. New York: AMACOM. ISBN 0-8144-7176-5

### Assignments & Academic Calendar

Title/Date	Overview	Objectives	Assignments
<p><b>Major Assignment: Career Management Plan</b></p> <p><b>Jeff Hicks</b></p>	<p>The final Major Assignment in the Project Management Core Phase, The Career Management Plan, asks you to integrate and apply what you have learned about organizational behavior and the power side of project management to your organization and career.</p> <p>To complete this assignment you will need to interview at least four sources in your organization, including peers, subordinates and supervisors.</p>	<p>To understand more about what others see as your strengths and challenges, to aid in building critical relationships within or outside the organization, and to enable you to make more active and better informed decisions about your career development and planning.</p>	<p><b>Individual Assignment</b></p> <ul style="list-style-type: none"> <li>• Detailed instructions are found on eLearning Assignments</li> <li>• Post your Career Management Plan by <b>11:59 PM, 7 January 2017</b></li> </ul>

Title/Date	Overview	Objectives	Assignments
<p><b>Organizational Project Management, Portfolio Management and Program Management</b></p> <p><b>Bill Hefley</b></p> <p><b>December 5 – 11</b></p>	<p>Organizations that effectively adopt project management often ensure that the processes surrounding the management of projects are supported from the top levels of the organization by using portfolio and program governance structures. This module introduces organizational project management, portfolio management and program management in the context of organization-wide adoption of project management.</p>	<p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Discuss the key elements of organizational competence in project-based organizations</li> <li>2. Describe key factors in project management maturity models</li> <li>3. Describe a framework for organizational project management competence and organizational project management</li> <li>4. Define and describe the application of portfolio management in organizations</li> <li>5. Discuss the benefits of portfolio management and the challenges organizations face when they do not manage using it</li> <li>6. Discuss the portfolio management application of the stage gate process</li> <li>7. Describe the important differences between program management and project management</li> <li>8. Discuss the benefits of program management</li> </ol>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• PMI, <i>Organizational Project Management Maturity Model</i>, pages 1-39</li> <li>• Cooper and Edgett, <i>Portfolio Management... I and II</i></li> <li>• PMI, <i>The Standard for Portfolio Management</i></li> <li>• AIPM, AIPM Professional Competency Standards for Project Management, Part F – Certified Practicing Portfolio Executive (CPPE)</li> <li>• PMI, <i>The Standard for Program Management</i></li> <li>• Tsaturyan &amp; Müller, <i>Integration and governance of multiple project management offices (PMOs) at large organizations.</i></li> </ul> <p><b>Individual Assignments</b></p> <ul style="list-style-type: none"> <li>• <b>Pre-class:</b> Be prepared to discuss your own company's portfolio management process during class.</li> <li>• <b>Post-class:</b> Use the lecture slides that describe the 16 point Kerzner Project Maturity Model and complete an assessment of your company (or one you are familiar with) using the 16 points. Post your assessment results (completed spreadsheet) to eLearning before <b>11:59 PM, December 17, 2016.</b></li> </ul> <p><b>Web Conference: Dec. 11, 2016, 5:00 PM CT</b></p>

Title/Date	Overview	Objectives	Assignments
<p><b>The Project Management Office I</b></p> <p><b>Bill Hefley</b></p> <p><b>December 12 – 18</b></p>	<p>PMOs have become an essential element in most successful project centered organizations. They have morphed considerably over the years. There are different types with different functions and the goal is to find the one structure that is suitable for the organizational culture. This module provides an overview of the types of project office structures and the key elements of each.</p>	<p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the functions of the different types of project management offices</li> <li>2. Discuss how project management offices interface with other processes in an organization</li> <li>3. Describe the different maturity levels of a project management office</li> <li>4. Discuss the methods used to establish an effective PMO culture</li> <li>5. Describe how to effectively sell a PMO into an organization</li> <li>6. Describe the key benefits of having a PMO</li> </ol>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• Perry, <i>Business Driven PMO Setup: Practical Insights, Techniques and Case Examples for Ensuring Success</i></li> <li>• Aubry, et al, Project management offices in transition.</li> <li>• Ward &amp; Daniel, The role of project management offices (PMOs) in IS project success and management satisfaction.</li> </ul> <p><b>Team Assignment</b></p> <ul style="list-style-type: none"> <li>• Prepare a PowerPoint presentation for your team project that answers the seven question questionnaire on PMOs. Post on eLearning by <b>11:59 PM, December 17, 2016.</b></li> </ul> <p><b>Web Conference: Dec. 18, 2016, 5:00 PM CT</b></p>
<p><b>The Project Management Office II</b></p> <p><b>Bill Hefley</b></p> <p><b>December 19 – 25</b></p>	<p>This module focusses exclusively on the business-driven and value-added PMOs. Examples are discussed and analyzed.</p>	<p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the functions of a business-driven value-centered PMO</li> <li>2. Describe how a business-driven value-centered PMO is established in an organization</li> <li>3. Discuss how to ensure that the PMO is aligned with the needs of the organization</li> <li>4. Describe how to ensure the PMO is seen as a value-added department rather than an “overhead” department</li> <li>5. Discuss how a business-centered PMO can be a transformational PMO</li> </ol>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• <i>Sheives, Only at 7-Eleven – A PMO Case Study</i></li> </ul> <p><b>Individual Assignment</b></p> <ul style="list-style-type: none"> <li>• Read the 7-Eleven case study and write a 1,000 word paper that describes the steps that were taken and the characteristics that were developed so that the PMO was business-driven and value-centered. Post your paper to eLearning before <b>11:59 PM, January 14, 2017</b></li> </ul> <p><b>No Web Conference this week</b></p>

Title/Date	Overview	Objectives	Assignments
<p><b>New Project Management Concepts &amp; Agile Project Management</b></p> <p><b>Bill Hefley</b></p> <p><b>January 9 – 15</b></p>	<p>New project management concepts and new Non-PMI organizations have become well-established in the last several years.</p> <p>The newest concept to emerge that has taken a real stronghold in software development projects is Agile Project Management. The fundamentals of this approach will be described relative to its features, benefits, and the differences with traditional PMI related project management.</p>	<p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the fundamental features of Agile Project Management</li> <li>2. Discuss the benefits of Agile Project Management and where its application is best suited</li> <li>3. Discuss the fundamentals of Scrum</li> <li>4. Discuss the benefits of Scrum</li> <li>5. Discuss the defined roles in Scrum</li> </ol>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• Cohn and Schwaber, <i>The Need for Agile Project Management</i></li> <li>• Scrum Alliance. The 2015 State of Scrum Report.</li> <li>• Sutherland and Schwaber, <i>The Scrum Papers...</i>, Chapter 1: Introduction to Scrum</li> <li>• Sutherland and Ahmad. How a Traditional Project Manager Transforms to Scrum: PMBOK vs. Scrum</li> <li>• The AXELOS 2016 PRINCE2® Report, April 2016 (Agile section, pages 41-51).</li> </ul> <p><b>Individual Assignment</b></p> <ul style="list-style-type: none"> <li>• In table format, generate a comparison of Scrum with traditional project management</li> <li>• Post to eLearning by <b>11:59 PM January 14, 2017.</b></li> <li>• Be prepared to discuss during the web conference.</li> </ul> <p><b>Web Conference: Jan. 15, 2017, 5:00 PM CT</b></p>

Title/Date	Overview	Objectives	Assignments
<p><b>Scrum and Project Management</b></p> <p><b>Bill Hefley</b></p> <p><b>On-campus retreat</b> <b>January 19 AM</b></p>	<p>Scrum is the most popular of all Agile methodologies. This module expands on the basics discussed in the previous module and provides some good examples and practice in implementing Scrum in organizations and understanding where Scrum fits and does not fit in certain projects.</p> <p>This module also examines other PM methodology frameworks such as Prince2 and IPMA. These two non-PMI organizations have achieved increased notoriety in recent years.</p>	<p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the challenges of conducting Scrum in real life projects</li> <li>2. Discuss the leadership roles and participant roles in scrum by conducting some mock scrum meetings</li> <li>3. Describe the key steps in implementing Scrum in an organization</li> <li>4. Describe a few of the key tools used to support Scrum</li> <li>5. Describe some scrum lessons learned after reviewing a scrum case study</li> <li>6. Discuss the differences between Agile Project Management and PMI's project management processes</li> <li>6. Discuss the differences in a scrum culture versus a traditional project management culture</li> <li>7. Describe several key non-PMI organizations and their features and differences from PMI</li> </ol>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• Sutherland and Schwaber, The Scrum Papers...: <ul style="list-style-type: none"> <li>○ Chapters 2-3: Introduction to Scrum</li> <li>○ Chapter 7: Case Studies</li> </ul> </li> </ul> <p><b>In-class Team Assignments</b></p> <ul style="list-style-type: none"> <li>• Instructions will be provided in class</li> <li>• Post your results to eLearning by <b>11:59 PM, January 19, 2017.</b></li> </ul>

Title/Date	Overview	Objectives	Assignments
<p><b>Behavioral Assessment</b></p> <p><b>Jeff Hicks</b></p> <p><b>On-campus retreat</b> <b>January 19 PM</b></p>	<p>In this module, we will explore human behavior, how we perceive ourselves as behaving, and how others perceive that same behavior. We'll measure our behavior under both normal and stressful conditions by completing a widely used and effective behavioral instrument, LIFO, or Life Orientation.</p> <p>We will use the Dr. Stuart Atkins' LIFO Instrument to first measure our own behavioral strengths, followed by others' perception of our demonstrated behavioral characteristics.</p>	<p>This module introduces the use of a behavioral measurement instrument as a tool to improve project team effectiveness.</p> <p>There are three critical considerations regarding project team member behavior:</p> <ol style="list-style-type: none"> <li>1. Understanding the behavioral strengths of each team member</li> <li>2. Understanding the behavioral strengths of the project manager</li> <li>3. Understanding the behavioral strengths of team members and project managers under both normal and adverse conditions...such as high stress.</li> </ol> <p>A team that is well aware of the behavioral strengths and characteristics of the manager and the team members before the stress environment occurs is a team that is better prepared to work efficiently and effectively under stress.</p>	<p><b>In-class assignments</b></p>
<p><b>Project Simulation</b></p> <p><b>Jim Szot</b></p> <p><b>January 20-21</b></p>	<p>Project teams compete in a simulated project environment</p>	<p>Demonstrate your ability to work as a team to plan and execute a simulated project</p>	<p><b>Reading Assignments</b></p> <ul style="list-style-type: none"> <li>• Pinto and Parente</li> </ul> <p><b>Individual Assignment</b></p> <ul style="list-style-type: none"> <li>• Review your prior preparatory assignments, the simulation player quick start guide and Sim Professionals PowerPoint video presentations found in the eLearning Lectures section.</li> </ul> <p><b>Team Assignment</b></p> <ul style="list-style-type: none"> <li>• Reports and presentations assigned during the simulation. Post on eLearning by <b>11:59 PM, January 21, 2017</b></li> </ul>

Title/Date	Overview	Objectives	Assignments
<b>Into to Business Core</b>  <b>Jim Joiner</b> <b>Jim Szot</b>  <b>January 21 PM</b>	Information on the International Study Trip and a preview of Business Core course topics	Prepare you to start the Business Core phase of the program	

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## Grading Policy

Graded assignments should be posted to eLearning or delivered in class by the stated deadlines. For assignments to be posted to eLearning: If you do not find a link, e-mail Wei Wang [[weiwang@utdallas.edu](mailto:weiwang@utdallas.edu)], Debbie Samac [[debbie@utdallas.edu](mailto:debbie@utdallas.edu)] and Jim Szot [[jimszot@utdallas.edu](mailto:jimszot@utdallas.edu)].

Assignments	Module	Percentage	Type	Due Date
Organizational Assessment	Org. Project Mgt... (Hefley)	5%	Individual	December 17
PowerPoint Presentation	PMO I (Hefley)	5%	Team	December 17
Career Management Plan	Course (Hicks)	50%	Individual	January 7
7-Eleven case study	PMO II (Hefley)	10%	Individual	January 14
Scrum comparison	New PM Concepts and Agile PM (Hefley)	5%	Individual	January 14
User stories (in-class)	Scrum and PM (Hefley)	5%	Team	January 19
LIFO participation	Behavioral Assessment (Hicks)	5%	Individual	January 19
Project simulation reports and presentations (in-class)	Project Simulation (Szot)	15%	Team	January 21

Possible course grades are A, A-, B+, B, B-, C+, C, and F. The anticipated grading scale based on past experience is shown below. This scale is subject to revision based on analysis of class performance by, and at the sole discretion, of the instructor of record.

Percentage Score	Grade	Percentage Score	Grade	Percentage Score	Grade
95-100	A	80 < 85	B	65 < 70	C
90 < 95	A-	75 < 80	B-	< 65	F
85 < 90	B+	70 < 75	C+		

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## Technical Support

For assistance with eLearning, WebEx, and other Project Management Program technology issues, e-mail Wei Wang [[weiwang@utdallas.edu](mailto:weiwang@utdallas.edu)] and Debbie Samac [[debbie@utdallas.edu](mailto:debbie@utdallas.edu)].

If you experience any problems with your UTD account you may send an email to [assist@utdallas.edu](mailto:assist@utdallas.edu) or call the UTD Computer Helpdesk at 972-883-2911. **Do not contact the UTD Computer Helpdesk for questions about or problems with eLearning or WebEx.** They cannot help you – these tools are supported by the Project Management Program.

## **Comet Creed**

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*This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:*

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

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## **UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

***The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.***