# American Public University System

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#### School of Science, Technology, Engineering and Math Information Technology Department ITMG624: Information Technology Project Management Credit Hours: 3 Length of Course: 8 Weeks Prerequisite(s): Graduate Student Status

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## Instructor Information

Instructor: Email: Office Hours:

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## Course Description (Catalog)

This course explores successful project management for information technology projects. The System Development Life Cycle (SDLC) models are defined including the waterfall, spiral, incremental release, and prototyping models. Students will differentiate between these models and apply corresponding project management methods to identify critical checkpoints and reviews. Risk management, as applied to technology projects, is examined. Key project indicators are discussed, and students will explore defining measurement criteria for determining critical success factors on a project. The course defines the application of knowledge, skills, tools, and techniques to project activities and includes a tutorial for Microsoft Project. Emphasis is placed on the three dimensions of the information

technology project constraints: scope, time, and cost. Students are recommended to have access to Microsoft Project. Course software requirements with the appropriate versions are listed under the Resources.

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## **Course Scope**

This course provides students with the foundations for effective project management in modern organizations. The course begins with a comprehensive introduction to the main components of the project management discipline. Specifically, a comprehensive and thorough examination of the five project management process groups will increase the knowledge and understanding to oversee critical projects. Students will understand the challenges of initiating a project and developing a critical planning strategy to begin the project management cycle. Students will apply the concepts to develop critical project management plans that are used in the business environment. The course culminates with development of a detailed final project including concepts such as scope management, risk management, resource management, and schedule development.

This course explores successful techniques for managing information technology projects. Emphasis will be placed on typical corporate/organizational technology projects such as developing websites, upgrading software and hardware, implementing commercial off the shelf (COTS) software, etc. Several System Development Life Cycle (SDLC) models are examined including the waterfall, spiral, incremental release, and prototyping models. Students will differentiate between these models and apply corresponding project management methods to identify critical checkpoints and reviews. Emphasis will be placed on using templates and other practical methodologies to quickly create reasonable, accurate and appropriately detailed project plans.

Risk management practices, as applied to technology projects, are also examined. Key project indicators are discussed, and students will explore defining and tracking measurement criteria for determining/monitoring critical success factors on a project. The course defines the application of knowledge, skills, tools, and techniques to project activities and includes a tutorial for Microsoft Project. Emphasis is placed on managing the three dimensions of information technology project constraints: scope, time, and cost.

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## **Course Objectives**

Upon completion of this course of study, the student will be able to:

- CO#1: Analyze foundation principles of project management based on project life cycle models
- CO#2: Analyze attributes of IT project management and Portfolio Management
- CO#3: Deconstruct key element of a project charter and Statement of Work (SOW)
- CO#4: Analyze processes of project risk management with Work Breakdown Structure (WBS)
- CO#5: Analyze processes of realistic scheduling and estimation accuracy
- CO#6: Examine key components of a high performance project team with effective project communications

- CO#7: Summarize project success factors and applicable tools, techniques, and successful project metrics.
- CO#8: Examine key components of Enterprise Project Management (EPM), Project Management Offices (PMO), and successful requirement engineering methods Table of Contents

## **Course Delivery Method**

This course delivered via distance learning will enable students to complete academic work in a flexible manner, completely online. Resources and access to an online learning management system will be made available to each student. **Assignments are due by the dates listed in the schedule below** and include Forums questions (accomplished in groups through a threaded Forums), article reviews, research papers, and individual assignments. Assigned faculty will support the students throughout this eight-week course. <u>Table of Contents</u>

#### Resources

## **Required Text**

Verzuh, E.(2015). The Fast Forward MBA in Project Management (5th ed.). Wiley. ISBN 9781119086574

## **Optional Text**

Project Management Institute (2013). A Guide to the Project Management Body of Knowledge: PMBOK<sup>®</sup> Guide (5 ed.). Project Management Institute. ISBN 978-1935589679 or 1935589679

#### Software Requirements

- MS Word or any word processor with the ability to export a \*.txt file
- Adobe Acrobat Reader

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#### **Evaluation Procedures**

Your final course grade will be based upon the following:

Assignment	Grade Book Weights
Forums Participation	40
Article Summaries	20
Research Proposal	4
Risk Management Paper	10
Project Metrics Paper	10
Research Paper	16
Total Points	100

Course Submissions

## Introductions

In the Introductions under Forums, provide an introduction about yourself to the class. Include some information about your job and the time zone where you reside. Include your project management experience, if any, and your field of expertise (i.e. IT, Construction, Medical).

<u>All work must be original.</u> Please read and understand the University policy on academic dishonesty. You must credit your sources and provide the appropriate references on your assignments. All submitted work will use the APA citation format.

# **Article Summaries**

Each student will be required to complete four article summaries. Students will find a current article related to the subject of the week, summarize the article in their own words, and then describe how the article relates to course concepts. Each article summary will be a minimum of **two** pages. Additionally, you must provide the article used as the basis for the summary. Try to find peer-reviewed articles from APUS online library with at least 10 pages.

## **Risk Management Paper**

Write a paper discussing your work experience, observations, and/or outside reading on a topic involving practical risk management (e.g. disaster recovery, changes in project scope, technology risk, etc.). Be sure to relate your experiences to the course concepts. This will be a minimum of four pages.

# **Project Metrics Paper**

Write a paper discussing your work experience, observations, and/or outside reading on the use of practical project metrics, measurements, single value indicators (metric), and/or controlling variances (e.g. what facilities does Microsoft Project provide for Project Managers and Team Leaders to track progress against plan/budget). Be sure to relate your experiences to the course concepts. This will be a minimum of four pages.

## **Research Proposal and Research Paper**

Each student will be required to complete a research paper on an individually selected topic. The research paper should be a minimum of 10 pages and not to exceed 15 pages (including Cover Sheet and References page). The research paper should demonstrate your grasp of the concepts covered in the course. The topic can apply to a project management issue of particular interest to you or your work place. Each student will select and submit their topic for approval including a one-page proposal for approval.

Note that TurnItIn.com originality index report is required. It must be less than 10% and individual items have to be 1% or less. Class id and passcode will be published in the announcement section.

# Forums

Classroom interactions are a vital part of the online experience. Valuable knowledge can be gained from understanding the experiences of other class participants. Students are expected to actively participate in the Forums multiple times through the week.

# Initial Forum Response (1)

Please join the forums each week. Students must post a reply to weekly forums and reply to at least 2 other students for each Forum. Replies must be posted in the week due to receive full credit. The Forums are for student interaction and input should be submitted before the week ends in order to fully participate in the discussions. Students should demonstrate their own knowledge in the forums and avoid copying and pasting from websites.

## Guidelines:

- Post the initial response to each forum by 11:55pm, ET, Thursday.
- Initial responses should be no less than 500 words.
- Initial responses are to be original in content and demonstrate a thorough analysis of the topic.
- Reply to at least 2 of your classmates in each forum by 11:55pm, ET, Sunday.
- Replies to classmates should be no less than 200 words.
- Responses to classmates are significant to advance the forum.
- All forums can be accessed in the Forums section of the course.

# Peer Reviews (2)

- 1) The peer review will evaluate and challenge the **compelling points** contained in another student's initial response. It should add new and relevant information to the discussion. Your peer reviews will demonstrate a substantial understanding the subject by consistently participating in intense Forum dialog. Relevant references in APA format are required for the end of each input.
- 2) Each peer review should be a <u>courteous paragraph</u> containing a **topic sentence** with good **supporting sentences**.

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## **Grading Scale**

Please see the <u>Student Handbook</u> to reference the University's <u>Grading Scale</u>.

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# **Course Outline**

<u>Week</u>	<u>Topic(s)</u>	<u>Learning</u> Objectives	<u>Reading(s)</u>	<u>Assignment(s)</u> Due (bold=graded)
1	Forums Personal Introduction Introduction to IT Project Management	CO#1: Analyze foundation principles of project management based on project life cycle models	Chapter 1 – Project Management: A Platform For Innovation Chapter 2 – Foundation principles of project management	Week 1 Forums & Peer Reviews Article Summary #1
2	Project Portfolio Management Agile Project Management	CO#2:Analyze attributes of IT project management and Portfolio Management	Chapter 10 – Managing Agile Development With Scrum Chapter 20 – Project Portfolio Management: Align project resources with business strategy	Week 2 Forums & Peer Reviews One page research proposal
3	Defining the project Project Initiation	CO#3: Deconstruct key element of a project charter and Statement of Work (SOW)	Chapter 4 – Project Initiation: Turning a problem or opportunity into a project Chapter 5 – Know your key stakeholders and win their cooperation Chapter 6 – Write the rules: Key documents to manage expectations and define success	Article Summary #2:
4	The planning process – Part I Risk Management Work Breakdown Structure (WBS)	CO#4: Analyze processes of project risk management with Work Breakdown Structure (WBS)	Chapter 7 – Risk Management: Minimize the threats to your project Chapter 8 – Work Breakdown Structure: Break your project into manageable units of work	Week 4 Forums & Peer Reviews Risk Management Paper
5	The planning process – Part II Cost, Schedule,	CO#5: Analyze processes of realistic scheduling and	Chapter 9 – Realistic scheduling Chapter 11 – The art and science of accurate estimating Chapter 12 – Balancing the trade-off	Week 5 Forums & Peer Reviews Article Summary #3: Project Schedule

	and Quality	estimation accuracy	among cost, schedule, and quality	
6	Controlling the Project – Part I Effective Project Communication	CO#6: Examine key components of a high performance project team with effective project communications	Chapter 13 – Building a high- performance project team Chapter 14 – Clear Communication among project stakeholders	Week 6 Forums & Peer Reviews Article summary #4: Communication Matrix
7	Controlling the project – Part II Project Metrics	CO#7: Summarize project success factors and applicable tools, techniques, and successful project metrics.	Chapter 16 – Measuring Progress Chapter 17 – Solving common project problems	Week 7 Forums & Peer Reviews Metrics paper
8	Enterprise Project Management MS Project	CO#8: Examine key components of Enterprise Project Management (EPM), Project Management Offices (PMO), and successful requirement engineering methods	Chapter 18 – Enterprise project management: Coordinate all projects and project resources in your organization Chapter 22 – Microsoft Project: Guidelines for effective use	Week 8 Forums & Peer Reviews Research paper

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#### Policies

Please see the <u>Student Handbook</u> to reference all University policies. Quick links to frequently asked question about policies are listed below.

Drop/Withdrawal Policy Plagiarism Policy Extension Process and Policy Disability Accommodations

#### Late Assignments

Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals, I understand you must manage competing demands on your time. Should you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

#### <u>Netiquette</u>

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and "flaming." Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper "Netiquette" must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the Forum of others.

- **Technology Limitations:** While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The Sakai classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.
- Humor Note: Despite the best of intentions, jokes and <u>especially</u> satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add "emoticons" to help alert your readers: ;-), : ),

#### **Disclaimer Statement**

Course content may vary from the outline to meet the needs of this particular group.

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#### **Online Library**

The Online Library is available to enrolled students and faculty from inside the electronic campus. This is your starting point for access to online books, subscription periodicals, and Web resources that are designed to support your classes and generally not available through search engines on the open Web. In addition, the Online Library provides access to special learning resources, which the University has contracted to assist with your studies. Questions can be directed to <u>librarian@apus.edu</u>.

- **Charles Town Library and Inter Library Loan:** The University maintains a special library with a limited number of supporting volumes, collection of our professors' publication, and services to search and borrow research books and articles from other libraries.
- **Electronic Books:** You can use the online library to uncover and download over 50,000 titles, which have been scanned and made available in electronic format.
- **Electronic Journals:** The University provides access to over 12,000 journals, which are available in electronic form and only through limited subscription services.

• **Tutor.com**: AMU and APU Civilian & Coast Guard students are eligible for 10 free hours of tutoring provided by APUS. <u>Tutor.com</u> connects you with a professional tutor online 24/7 to provide help with assignments, studying, test prep, resume writing, and more. Tutor.com is tutoring the way it was meant to be. You get expert tutoring whenever you need help, and you work one-to-one with your tutor in your online classroom on your specific problem until it is done.

#### Request a Library Guide for your course (<u>http://apus.libguides.com/index.php</u>)

The AMU/APU Library Guides provide access to collections of trusted sites on the Open Web and licensed resources on the Deep Web. The following are specially tailored for academic research at APUS:

- Program Portals contain topical and methodological resources to help launch general research in the degree program. To locate, search by department name, or navigate by school.
- Course Lib-Guides narrow the focus to relevant resources for the corresponding course. To locate, search by class code (e.g., SOCI111), or class name.

If a guide you need is not available yet, please email the APUS Library: <u>librarian@apus.edu</u>.

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#### Turnitin

Assignments submitted may be evaluated using Turnitin in the classroom. Turnitin will analyze the paper and report instances of potential plagiarism or academic integrity for you to edit before submitting it for a grade.

#### Selected Bibliography

Additional bibliographic information is provided in Course Resources.

- Bates, S. (2010). Running a meeting: Ten rookie mistakes and how to avoid them [Online]. Available: <u>http://www.managementconsultingnews.com/articles/bates\_meeting.php</u>
- Campbell, C. (2006). *The One-Page Project Manager: Communicate and Manage Any Project with a Single Sheet of Paper*. Hobeken, NJ: John Wiley and Sons
- Chapman, C. & Ward, S. (2003). *Project Risk Management: Processes, Techniques and Insights, 2nd Edition*. Hobeken, NJ: John Wiley and Sons

Cook, C. (2005). Just Enough Project Management. New York, NY: Mcgraw-Hill

Cusolito, R. (2010). Common challenges project managers face and tips for solving them [Online]. Available: <u>http://www.butrain.com/project-management-training-courses/project-manager.asp</u>

Fleming, Q. & Koppelman, J. (2005). *Earned Value Project Management*. Newtown Square, PA: Project Management Institute

Mathur, A. (2007). Scope management [Online]. Available: <u>http://www.projectperfect.com.au/info\_scope\_management.php</u>

Marchewka, J. (2006). Information Technology Project Management: Providing Measurable Organizational Value. Hobeken, NJ: John Wiley and Sons

Morris, P. & Pinto, J. (2007). The Wiley Guide to Project Control. Hobeken, NJ: John Wiley and Sons

Turbit, N. (2004). Creating a communication plan [Online]. Available: <u>http://www.projectperfect.com.au/info\_comms\_plan.php</u>

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# Appendix A – Grading Rubric

All written assignments will be assessed according to this rubric. Note that a score of 0 may be assigned in any category where your work does not meet the criteria for the beginning level.

Student exhibits a defined and clear understanding of the assignment. Thesis s clearly defined and well constructed to help guide the reader throughout the assignment. Student	Establishes a good comprehension of topic and in the building of the thesis. Student demonstrates an effective presentation	Student exhibits a basic understanding of the intended assignment, but the thesis is not fully	Exhibits a limited understanding of the assignment. Reader is unable to follow the	10
builds upon the thesis of the assignment with well- documented and exceptional supporting facts, figures, and/or statements.	of thesis, with most support statements helping to support the key focus of assignment.	supported throughout the assignment. While thesis helps to guide the development of the assignment, the reader may have some difficulty in seeing linkages between thoughts. While student has included a few supporting facts and statements, this has limited the quality of the assignment.	logic used for the thesis and development of key themes. Introduction of thesis is not clearly evident, and reader must look deeper to discover the focus of the writer. Student's writing is weak in the inclusion of supporting facts or statements.	
Student demonstrates proficient command of the subject matter in the assignment. Assignment	Student exhibits above average usage of subject matter in assignment. Student	The assignment reveals that the student has a general, fundamental	Student tries to explain some concepts, but overlooks critical details. Assignment	20
St St St St	udent demonstrates oficient command of e subject matter in the	udent demonstrates oficient command of e subject matter in the signment. Assignment	atements. atements.	atements.some difficulty in seeing linkages between thoughts. While student has included a few supporting facts and statements, this has limited the quality of the assignment.the writer. Student's writing is weak in the inclusion of supporting facts or statements.udent demonstrates oficient command of e subject matter in the signment. AssignmentStudent exhibits above average usage of subject matter in assignment. StudentThe assignment reveals that the student has a general, fundamentalStudent tries to explain some concepts, but overlooks critical details. Assignment

APUS Assignment Rubric Graduate Level 600+	EXEMPLARY LEVEL 4	ACCOMPLISHED LEVEL 3	DEVELOPING LEVEL 2	BEGINNNIG LEVEL 1	TOTAL POINTS
	of depth of student's ability to relate course content to practical examples and applications. Student provides comprehensive analysis of details, facts, and concepts in a logical sequence.	average ability in relating course content in examples given. Details and facts presented provide an adequate presentation of student's current level of subject matter knowledge.	course material. Whereas, there are areas of some concerning in the linkages provided between facts and supporting statements. Student generally explains concepts, but only meets the minimum requirements in this area.	incomplete in various segments. Student presents concepts in isolation, and does not perceive to have a logical sequencing of ideas.	
CRITICAL THINKING SKILLS	Student demonstrates a higher-level of critical thinking necessary for 300-400 level work. Learner provides a strategic approach in presenting examples of problem solving or critical thinking, while drawing logical conclusions which are not immediately obvious. Student provides well-supported ideas and reflection with a variety of current and/or world views in the assignment. Student presents a genuine intellectual	Student exhibits a good command of critical thinking skills in the presentation of material and supporting statements. Assignment demonstrates the student's above average use of relating concepts by using a variety of factors. Overall, student provides adequate conclusions, with 2 or fewer errors.	Student takes a common, conventional approach in guiding the reader through various linkages and connections presented in assignment. However, student presents a limited perspective on key concepts throughout assignment. Student appears to have problems applying information in a problem-solving	Student demonstrates beginning understanding of key concepts, but overlooks critical details. Learner is unable to apply information in a problem-solving fashion. Student presents confusing statements and facts in assignment. No evidence or little semblance of critical thinking skills.	20

APUS Assignment					
Rubric	EXEMPLARY	ACCOMPLISHED	DEVELOPING	BEGINNNIG	TOTAL
Graduate Level	LEVEL	LEVEL	LEVEL	LEVEL	POINTS
600+	4	3	2	1	
	development of ideas		manner.		
	throughout assignment.				
ORGANIZATION OF	Student thoroughly	Student explains the	Learner applies some	Assignment reveals	20
IDEAS/FORMAT	understands and excels in	majority of points and	points and concepts	formatting errors and a	
	explaining all major	concepts in the	incorrectly. Student	lack of organization.	
	points. An original,	assignment. Learner	uses a variety of	Student presents an	
	unique, and/or	demonstrates a good	formatting styles,	incomplete attempt to	
	imaginative approach to	skill level in formatting	with some	provide linkages or	
	overall ideas, concepts,	and organizing material	inconsistencies	explanation of key	
	and findings is presented.	in assignment. Student	throughout the	terms. The lack of	
	Overall format of	presents an above	paper. Assignment	appropriate references	
	assignment includes an	average level of	does not have a	or source materials	
	appropriate introduction	preparedness, with a	continuous pattern of	demonstrates the	
	(or abstract), well-	few formatting errors.	logical sequencing.	student's need for	
	developed paragraphs,	Assignment contains	Student uses less	additional help or	
	and conclusion. Finished	less than 5 resources.	than 3 sources or	training in this area.	
	assignment demonstrates		references.	Student needs to	
	student's ability to plan			review and revise the	
	and organize research in			assignment.	
	a logical sequence.				
	Student uses at least of				
	5-7 references in				
	assignment.				

APUS Assignment					
Rubric	EXEMPLARY	ACCOMPLISHED	DEVELOPING	BEGINNNIG	TOTAL
Graduate Level	LEVEL	LEVEL	LEVEL	LEVEL	POINTS
600+	4	3	2	1	
WRITING	Student demonstrates an	Student provides an	Assignment reflects	Topics, concepts, and	20
CONVENTIONS	excellent command of	effective display of	basic writing and	ideas are not	
(GRAMMAR &	grammar, as well as	good writing and	grammar, but more	coherently discussed or	
MECHANICS)	presents research in a	grammar. Assignment	than 5 errors. Key	expressed in	
	clear and concise writing	reflects student's	terms and concepts	assignments. Student's	
	style. Presents a	ability to select	are somewhat vague	writing style is weak	
	thorough, extensive	appropriate word usage	and not completely	and needs	
	understanding of word	and present an above	explained by student.	improvement, along	
	usage. Student excels in	average presentation	Student uses a basic	with numerous	
	the selection and	of a given topic or	vocabulary in	proofreading errors.	
	development of a well-	issue. Assignment	assignment.	Assignment lacks	
	planned research	appears to be well	Student's writing	clarity, consistency,	
	assignment. Assignment	written with no more	ability is average, but	and correctness.	
	is error-free and reflects	than 3-5 errors.	demonstrates a basic	Student needs to	
	student's ability to	Student provides a	understanding of the	review and revise	
	prepare a high-quality	final written product	subject matter.	assignment.	
	academic assignment.	that covers the above-			
		minimal requirements.			

APUS Assignment					
Rubric	EXEMPLARY	ACCOMPLISHED	DEVELOPING	BEGINNNIG	TOTAL
Graduate Level	LEVEL	LEVEL	LEVEL	LEVEL	POINTS
600+	4	3	2	1	
USE OF COMPUTER TECHNOLOGY/ APPLICATIONS	Student provides a high- caliber, formatted assignment. Learner exhibits excellent use of computer technology in the development of assignment. Quality and appropriateness of stated references demonstrate the student's ability to use technology to conduct applicable research.	Assignment presents an above-average use of formatting skills, with less than 3 errors. Students has a good command of computer applications to format information and/or figures in an appropriate format. Student uses at least two types of computer	Student demonstrates a basic knowledge of computer applications. Appearance of final assignment demonstrates the student's limited ability to format and present data. Resources used in	Student needs to develop better formatting skills. The student may need to take additional training or obtain help from the Educator Help Desk while preparing an assignment. Research and resources presented in the assignment are limited.	10
	Given assignment includes appropriate word processing, spreadsheet and/or other computer applications as part of the final product.	applications to produce a quality assignment.	assignment are limited. Student may need to obtain further help in the use of computer applications and Internet research.	Student needs to expand research scope. The number of formatting errors is not acceptable.	
TOTAL POINTS					100