

Georgia State University
Robinson College of Business
CIS 4700 Managing IT Project Risk, Vendors and Contracts

Course Description

This course focuses on advanced IT project management concepts, with particular emphasis on managing vendors, contracts, and IT project risk. The special management challenges associated with outsourced and off-shored projects are examined, along with the specific skills required to successfully manage these types of projects. Coverage will include contract law and the different contract options available, as well as the portfolio of control mechanisms that can be employed to help manage such projects. Concepts and techniques for controlling software projects and dealing with schedule and other project risks will be introduced, including Monte Carlo analysis, Earned Value Analysis, and a variety of risk assessment tools and risk mitigation approaches.

Learning Objectives

Upon completion of the course, students should be able to:

1. Identify IT project risks
2. Use Monte Carlo simulation to analyze schedule risk
3. Use Earned Value Analysis for project control
4. Articulate different control methods for limiting risk exposure, their applicability in different situations, and their strengths and weaknesses
5. Set up an independent validation and verification process for project control
6. Evaluate various sourcing options for software development (custom development; purchase of standardized package; domestic and offshore outsourcing)
7. Develop an RFP and manage the vendor selection process
8. Manage relationships with vendors and understand the difference between contractual vs. relational governance
9. Articulate the key elements of a good contract for IT services
10. Identify the risks and benefits associated with offshoring and how these arrangements can best be managed

Catalog Description

This course is experimental at this time and no course description for it appears in the current catalog. The proposed catalog description is the same as the course description appearing above. Subject to this course receiving full approval and a subsequent catalog being published, the current university catalog description of this course will then appear in the University's undergraduate catalog: http://www.gsu.edu/es/catalogs_courses.html.

Prerequisite Policy

A student must fulfill the following course prerequisites as listed in the Catalog description: CIS 3001 IT Project Management and CSP: I, II, III, IV, V, VI (see <http://robinson.gsu.edu/rcbonline/csps.htm>).

Course Material

Since there is no single textbook that covers the range of topics in this course, we will use selected readings and cases. The material will be made available electronically through study.net.

Method of Instruction

The method of instruction will be instructor introduction of concepts followed by student-lead analysis and discussion of related articles and cases. A multimedia classroom is required with instructor workstation (but student workstations are not required).

Tools

Microsoft Project 2007. The best way to obtain access to MS Project is through the CIS Department and the Microsoft Developer's Network Academic Alliance. The CIS Department at GSU is now licensed under the MSDN Academic Alliance (MSDNAA) Program which enables every student taking a CIS course to access all of the software available under the Program. Microsoft's e-academy is responsible for making this software available to everyone for direct download over the Internet. The MSDNAA database of CIS courses registered students was compiled from those students who were registered for CIS classes this semester ONLY. If you have flagged your GSU Directory Information as "BLOCKED-CONFIDENTIAL", you will have to come to the Department and sign a release. This is done only ONCE per semester. To become an eligible user, you have to be a current CIS course student and the upload will automatically register you sending all the information to your student email account @ GSU. Please refer to [MSDNAA Master End-User License Agreement](#). You will find more information about the MSDNAA access procedures at <http://www2.cis.gsu.edu/cis/student/MSDNAAAccessProcedures.asp>.

Students and faculty can access this software at http://msdn.e-academy.com/gsu_cis. Here you can download and access the complete suite of Microsoft developer tools, servers, and platforms. There is no charge to download the software as long as you are an eligible user in the System. There are some selected products that have the option of purchasing the media for a minimum charge.

DO NOT wait until the day before the assignment is due to make sure you can access the software. It can take several days to get your information into the system. If you have trouble accessing the software, first try the password resend facility. If this does not work, contact MSDNAA_SUPPORT@cis.gsu.edu and explain what problem you are having accessing the MSDNAA site. The software packages on MSDNAA are not demos; they are full copies.

Be forewarned that the MS Project software you will need for this course is *not* installed in the university computer labs. You will need access to both the software and a printer to complete certain assignments for the course.

Individual Assignments

Students will be asked to complete 4 individual assignments during the semester focusing on the topics of: schedule risk, earned value analysis, RFP creation, and offshoring. For the broad schedule risk topic, student teams will analyze and present overviews of relevant articles including brief background research about the technology or the company and the outcome of its decision. For the project risk section, the individual exercise is earned value analysis where they a basic Project file that has several tasks manipulated which then required schedule calculation and computation of cost indices, interpretation of results, and identification of actions for getting the project back on track. For the outsourcing section, the individual exercise is to create a basic RFP—identifying requirements, defining selection criteria, etc., for a software product and complementary services. The individual exercise for the offshoring section is a short paper identifying and analyzing key offshoring risks and mitigation strategies.

Group Presentations

Students will be asked to form 3 person groups and at the end of the semester each group will present a 10-15 minute (max) presentation on a selected topic relating to IT project management.

The presentation should:

- 1) Explain the topic in terms of what it is and how it relates to IT project management.
- 2) Address the following questions: Why is it important? How can it be used to improve IT project management? Is there any evidence that it can improve practice? What does it take to implement it in an organization?
- 3) Relate the topic to the key ideas and concepts covered in CIS 4700, drawing explicit reference to course material and other relevant readings or web resources, as appropriate.
- 4) Include hardcopies of the slides and a list of references on the topic (for those who want to learn more) that can be distributed to the entire class on the day of the presentation.
- 5) Allow every team member to participate not just in the preparation of the presentation, but in the actual delivery of the presentation in class.

Following the presentation, there will be time for some questions from the audience. Class members who are not presenting should adopt the perspective of questioning whether organizations will really be able to improve project management practices and outcomes if they embrace the technology or approach described.

Groups should inform the instructor of their topic no later than the 4th week of class. Topics will be approved on a first-come, first-served, fashion, and each group will be required to research and present on a different topic. Groups will be graded on both the quality of the content they present as well as the quality with which it is presented.

Evaluation Policy

Individual Assignments	Assignment 1	25 points
	Assignment 2	25 points
	Assignment 3	25 points
	Assignment 4	25 points

Group Assignments	Group Presentation	50 points
Tests	Test 1 (mid term)	100 points
	Test 2 (final)	100 points
Participation	Attendance & participation	50 points
Total		400 points

Grade	Percentage Range	Break Points
A	93 and above	372
A-	90 or greater, and less than 93	360
B+	87 or greater, and less than 90	348
B+	84 or greater, and less than 87	336
B-	80 or greater, and less than 84	320
C+	77 or greater, and less than 80	308
C	74 or greater, and less than 77	288
C-	70 or greater, and less than 74	280
D	60 or greater, and less than 70	240
F	less than 60	240

Attendance: If you are unable to attend a class session, it is your responsibility to acquire the class notes, assignments, announcements, etc. from a classmate. The instructor will not give private lectures for those that miss class.

Submission of Deliverables: Unless specific, prior approval is obtained, no deliverable will be accepted after the specified due date.

If you have a legitimate personal emergency (e.g., health problem) that may impair your ability to submit a deliverable on time, you must take the initiative to contact the instructor before the due date/time (or as soon after your emergency as possible) to communicate the situation.

Make-up exams will not be given: However, if a student has a planned absence, he or she may take the exam **earlier** with the permission of the instructor.

Tentative Plan

Class	Topic	Readings	Learning Objectives
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1	Course Introduction and overview Introduction to IT project risk	Wallace, L., and Keil, M. "Software Project Risks and their Impact on Outcomes," <i>Communications of the ACM</i> , Vol. 47, No. 4 (April), 2004, pp. 68-73.	<ul style="list-style-type: none"> ▪ Objective 1: Identify IT project risks
2	Schedule risk	Hulett, D., "Schedule Risk Analysis Simplified," http://www.pertmaster.com/docs/whitepapers/riskanalysisimplified.pdf	<ul style="list-style-type: none"> ▪ Objective 2: Use Monte Carlo simulation to analyze schedule risk
3	Earned value analysis	Wilkins, T.T. "Earned Value, Clear and Simple," http://www.projectsart.co.uk/docs/earned-value.pdf	<ul style="list-style-type: none"> ▪ Objective 3: Use Earned Value Analysis for project control
4	Control mechanisms <ul style="list-style-type: none"> • Behavior vs. outcome based controls IV&V and the role of auditors	<p>Kirsch, L.J., "Deploying Common Systems Globally: The Dynamics of Control," <i>Information Systems Research</i>, Vol. 15, No. 4, December 2004, pp. 374-395.</p> <p>Nickolett, C., "Project Due Diligence: Independent Verification and Validation," http://www.compsoln.com/IVV_whitepaper.pdf</p>	<ul style="list-style-type: none"> ▪ Objective 4: Articulate different control methods for limiting risk exposure, their applicability in different situations, and their strengths and weaknesses ▪ Objective 5: Set up an independent verification and validation process for project control
5	Make or buy—how to decide	<p>Buchowicz, B.S., "A process model of make-vs.-buy decision-making. The case of manufacturing software." <i>IEEE Transactions on Engineering Management</i>, Vol. 38, No. 1, 1991, pp. 24-32.</p> <p>W. McFarlan, "General Dynamics and CSC: Outsourcing the IS</p>	<ul style="list-style-type: none"> ▪ Objective 6: Evaluate various sourcing options for software development (custom development; purchase of standardized package; domestic and offshore outsourcing)

		Function,” Harvard Business School case 9-193-144, 1993.	
6	<p>Introduction to domestic outsourcing</p> <ul style="list-style-type: none"> • Creating an RFP • Managing the RFP process • Evaluating Potential vendors • Precontract negotiation issues 	<p>Cross, J., “IT Outsourcing: British Petroleum’s Competitive Approach,” <i>Harvard Business Review</i>, 1995, 94-102.</p>	<ul style="list-style-type: none"> ▪ Objective 7: Develop an RFP and manage the vendor selection process
7	<p>Managing the Vendor relationship</p> <ul style="list-style-type: none"> • Post contract management and complementary relationship governance • Contractual governance vs. relational governance • Trust 	<p>Austin, R.D., Nolan R. & Cotteleer, M., “Cisco Systems: Implementing ERP,” Harvard Business School case study 9-699-022, 1998.</p> <p>Lichtenstein, Y., “Puzzles in software development contracting,” <i>Communications of the ACM</i>, 2004, 61-65.</p> <p>Kishore R., et al. “A relationship perspective on IT outsourcing,” <i>Communications of the ACM</i>, 2003. 87-92.</p> <p>Sabherwal, R. “The role of trust in outsourced IS development projects,” <i>Communications of the ACM</i>, 1999, 80-86.</p>	<ul style="list-style-type: none"> ▪ Objective 8: Manage relationships with vendors and understand the difference between contractual vs. relational governance
8	Midterm Exam		
9	<p>Different types of sourcing relationship options</p> <ul style="list-style-type: none"> • Short term vs. long term relationships • Strategic alliances 	<p>Sviokla, J., Keil, M., and Simonson, S., “BellSouth Enterprises: The Cellular Billing Project,” Harvard Business School case 9-193-150, 1993.</p> <p>Lacity, M.C., Willcocks,</p>	<ul style="list-style-type: none"> ▪ Objective 8: Manage relationships with vendors and understand the difference between contractual vs. relational governance

		<p>L.P., and Feeny, D.F., "The Value of Selective Sourcing," <i>Sloan Management Review</i>, 1996, 13-25.</p> <p>Willcocks, L.P. and Choi, J. "Co-Operative Partnership and 'Total' IT Outsourcing: From Contractual Obligation to Strategic Alliance," <i>European Management Journal</i>, 1995, 67-78.</p>	
10	<p>Contracts</p> <ul style="list-style-type: none"> • Types of contracts • SLAs and penalties for non-performance • Intellectual property • Who owns source code? 	<p>Mathews, C. and Asselin, C. "How to Improve Outsourcer Relationships," <i>CIO</i>, 2005, 78-80.</p> <p>Schwartz, J. "The Art of the Deal," <i>VARBusiness</i>, May 2003, 57-59</p> <p>Bryson, N. and Ngwenyama, O., "Structuring IS Outsourcing Contracts for Mutual Gain: An Approach to Analyzing Performance Incentive Schemes," <i>Journal of the AIS</i>, 2000, 1-40.</p>	<ul style="list-style-type: none"> ▪ Objective 9: Articulate the key elements of a good contract for IT services.

11	<p>Legal aspects of contracts</p> <ul style="list-style-type: none"> • Things to include • Software Escrow • Government regulations and compliance • Risk sharing • SOX 	<p>Platz, L., and Temponi, C., "Defining the Most Desirable Outsourcing Contract between Customer and Vendor," <i>Management Decision</i>, 2007, 1656-1666.</p> <p>Lee, M.K.O., "IT Outsourcing Contracts: Practical Issues for Management." <i>Industrial Management & Data Systems</i>, 1996, 15-32</p> <p>Volonino, L., "Holistic Compliance with Sarbanes-Oxley," <i>Communications of the AIS</i>, 2004, 219-233</p>	<ul style="list-style-type: none"> ▪ Objective 9: Articulate the key elements of a good contract for IT services.
12	<p>Offshoring</p> <ul style="list-style-type: none"> • Why offshore? • Special benefits and challenges 	<p>Davis, G.B., Ein-Dor, P., King, W.R., and Torkzadeh, R., "IT Offshoring: History, Prospects and Challenges," <i>Journal of AIS</i>, Nov. 2006, 770-795.</p> <p>Overby, S., "The Hidden Costs of Offshore Outsourcing," <i>CIO</i>, 2003 at: www.cio.com/article/print/29654.</p>	<ul style="list-style-type: none"> ▪ Objective 10: Identify the risks and benefits associated with offshoring and how these arrangements can best be managed
13	<p>Managing offshoring</p> <ul style="list-style-type: none"> • Dealing with distance and time 	<p>Carmel, E., and Agarwal, R. "Tactical Approaches for Alleviating Distance in Global Software Development," <i>IEEE Software</i>, 2001, 22-29.</p> <p>Lacity, M., "Lessons in Global IT Sourcing," <i>IEEE Computer</i>, 2002, 26-33.</p>	<ul style="list-style-type: none"> ▪ Objective 10: Identify the risks and benefits associated with offshoring and how these arrangements can best be managed

14	Cultural challenges	<p>Kaiser, K., and Hawk, S., "Evolution of Offshore Software Development," <i>MISQ Executive</i>, 2004, 69-81.</p> <p>Lacity, M.C., and Rottman, J., "Twenty Practices for Offshore Sourcing," <i>MISQ Executive</i>, 2004, 117-130.</p>	<ul style="list-style-type: none"> ▪ Objective 10: Identify the risks and benefits associated with offshoring and how these arrangements can best be managed
15	Group Presentations		

Student Behavior

Behavior in class should be professional at all times. People must treat each other with dignity and respect in order for scholarship to thrive. Behaviors that are disruptive to learning will not be tolerated and may be referred to the Office of the Dean of Students for disciplinary action.

Discrimination and Harassment

Discrimination and/or harassment will not be tolerated in the classroom. In most cases, discrimination and/or harassment violates Federal and State laws and/or University Policies and Regulations. Intentional discrimination and/or harassment will be referred to the Affirmative Action Office and dealt with in accordance with the appropriate rules and regulations.

Unintentional discrimination and/or harassment is just as damaging to the offended party. But, it usually results from people not understanding the impact of their remarks or actions on others, or insensitivity to the feelings of others. We must all strive to work together to create a positive learning environment. This means that each individual should be sensitive to the feelings of others, and tolerant of the remarks and actions of others. If you find the remarks and actions of another individual to be offensive, please bring it to their attention. If you believe those remarks and actions constitute intentional discrimination and/or harassment, please bring it to my attention.

University Policy on Disabilities

GSU provides accessibility and reasonable accommodations for persons with disabilities. Students with disabilities are responsible for contacting the Office of Disability Services to assess their needs. Students must identify themselves and their needs to the professor no later than the first day of class.

CIS Department Class Policies

1. Prerequisites are strictly enforced. Students failing to complete any of the prerequisites with a grade of "C-" or higher will be administratively withdrawn from this course with *loss of tuition fees*. **There are no exceptions, except as granted by the instructor with the approval of the department.**

2. Students are expected to attend all classes and group meetings, except when precluded by emergencies, religious holidays, or bona fide extenuating circumstances.
3. Students who, for non-academic reasons beyond their control, are unable to meet the full requirements of the course should notify the instructor, by email, as soon as this is known and prior to the class meeting. Incompletes may be given if a student has ONE AND ONLY ONE outstanding assignment.
4. See the GSU site <http://www.gsu.edu/es/withdrawals.html> or registrar's office for details regarding withdrawals.
5. Spirited class participation is encouraged and informed discussion in class is expected. This requires completing readings and assignments **before** class.
6. All exams and individual assignments are to be completed by the student alone with **no** help from any other person.
7. Collaboration within groups is encouraged for project work. However, collaboration between project groups will be considered cheating.
8. Copying work from the Internet without a proper reference is considered plagiarism and subject to disciplinary action as delineated in the GSU Student Handbook.
9. Any non-authorized collaboration will be considered cheating and the student(s) involved will have an Academic Dishonesty charge completed by the instructor and placed on file in the Dean's office and the CIS Department. All instructors regardless of the type of assignment will apply this Academic Dishonesty policy equally to all students. Abstracted from GSU's Student Handbook Student Code of Conduct "Policy on Academic Honesty and Procedures for Resolving Matters of Academic Honesty"
 - a. http://www2.gsu.edu/%7Ewwwdos/codeofconduct_conpol.html
 - b. <http://www2.gsu.edu/~wwwcam/>

As members of the academic community, students are expected to recognize and uphold standards of intellectual and academic integrity. The University assumes as a basic and minimum standard of conduct in academic matters that students be honest and that they submit for credit only the products of their own efforts. Both the ideals of scholarship and the need for fairness require that all dishonest work be rejected as a basis for academic credit. They also require that students refrain from any and all forms of dishonorable or unethical conduct related to their academic work.

Students are expected to discuss with faculty the expectations regarding course assignments and standards of conduct. Here are some examples and definitions that clarify the standards by which academic honesty and academically honorable conduct are judged at GSU.

Plagiarism. Plagiarism is presenting another person's work as one's own. Plagiarism includes any paraphrasing or summarizing of the works of another person without acknowledgment, including the submitting of another student's work as one's own. Plagiarism frequently involves a failure to acknowledge in the text, notes, or footnotes the quotation of the paragraphs, sentences, or even a few phrases written or spoken by someone else. The submission of research or completed papers or projects by someone

else is plagiarism, as is the unacknowledged use of research sources gathered by someone else when that use is specifically forbidden by the faculty member. Failure to indicate the extent and nature of one's reliance on other sources is also a form of plagiarism. Any work, in whole or part, taken from the Internet or other computer based resource without properly referencing the source (for example, the URL) is considered plagiarism. A complete reference is required in order that all parties may locate and view the original source. Finally, there may be forms of plagiarism that are unique to an individual discipline or course, examples of which should be provided in advance by the faculty member. The student is responsible for understanding the legitimate use of sources, the appropriate ways of acknowledging academic, scholarly or creative indebtedness, and the consequences of violating this responsibility.

Cheating on Examinations. Cheating on examinations involves giving or receiving unauthorized help before, during, or after an examination. Examples of unauthorized help include the use of notes, texts, or "crib sheets" during an examination (unless specifically approved by the faculty member), or sharing information with another student during an examination (unless specifically approved by the faculty member). Other examples include intentionally allowing another student to view one's own examination and collaboration before or after an examination if such collaboration is specifically forbidden by the faculty member.

Unauthorized Collaboration. Submission for academic credit of a work product, or a part thereof, represented as its being one's own effort, which has been developed in substantial collaboration with another person or source or with a computer-based resource is a violation of academic honesty. It is also a violation of academic honesty knowingly to provide such assistance. Collaborative work specifically authorized by a faculty member is allowed.

Falsification. It is a violation of academic honesty to misrepresent material or fabricate information in an academic exercise, assignment or proceeding (e.g., false or misleading citation of sources, the falsification of the results of experiments or of computer data, false or misleading information in an academic context in order to gain an unfair advantage).

Multiple Submissions. It is a violation of academic honesty to submit substantial portions of the same work for credit more than once without the explicit consent of the faculty member(s) to whom the material is submitted for additional credit. In cases in which there is a natural development of research or knowledge in a sequence of courses, use of prior work may be desirable, even required; however the student is responsible for indicating in writing, as a part of such use, that the current work submitted for credit is cumulative in nature.