CS632/432: IT Project Management
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Course site: http://bu.edu/learn
Slides and current information will be at http://www.cs632.com

1. Course Description

Information Technology and Project Management is becoming more important in today's world. This introductory course examines the concepts and applied techniques for cost effective management of both long-term development programs and short-term projects. The content deals with planning, scheduling, organizing, and controlling projects. We will analyze projects from a wide variety of industries, including construction, information systems, non-profit organizations, the government and the military.

Project management principles and methodology are provided with a special focus on planning, controlling, and managing projects to successful completion. There are two key topics: the socio-cultural aspects of a project and the technical tools to analyze status and progress. Sociocultural issues include management and leadership, cultural differences, organizational structures, and conflict and negotiation. The technical issues include the relation between an organization's strategy and project selection, developing the project plan, the network schedule and critical path, the earned value method for estimating status, and scheduling resources.

Microsoft Project will be introduced in this course to provide hands-on practical skills with the above topics. The mastery of key tools and concepts introduced in this course could give you a significant competitive advantage in the marketplace.

Prerequisites:
>   None

2. Basic Information

>   **Classroom:**   **Computer Lab** FLR 267   (Fuller 808 Commonwealth Ave, (go up two flights next to Computer Science department)
>   **Dates and Times: Thursdays   6:00 to 9:30 PM**
>   **Instructor:**   Dr. Vijay Kanabar (kanabar@bu.edu)
>   Associate Professor,   Director of Project Management Programs [MET]
>   **Contact: kanabar@bu.edu**
>   Office: Room 250, 808 Commonwealth Ave (it is adjacent to the classroom).

3. Text & Materials

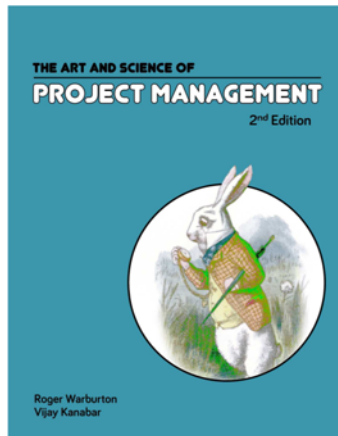**Course Resources**
>   A. REQUIRED TEXTBOOK

The Art and Science of Project Management, 2ⁿᵈ Edition

*The Art and Science of Project Management, 2*nd *Edition*

Roger D. H. Warburton and Vijay Kanabar, RW Press, Newport, RI USA.

Here is the cover of the second edition.

PURCHASE OPTION:

1) From *RW Press***, via Lulu: $45 plus shipping.**
To purchase a copy from *RW Press*,[1] go to: http://www.lulu.com/shop/roger-warburton-and-vijay-kanabar/the-art-and-science-of-project-management/paperback/product-21154914.html

 The book is shipped to you using the shipping method you select.

2) At bookstores, including *Barnes and Noble* **and** *Amazon***: $63.15.**
(Plus shipping from places like Amazon). Amazon.com lists the book as "in stock." However, this is not actually true. If you order from Amazon, they will order a copy from Lulu who will then print it. Amazon will arrange to have the book shipped directly to you from Lulu. Therefore, it is no quicker to order from Amazon.

It is highly recommended that students do not leave the purchase of textbooks to the last minute. The second edition of the Art & Science of Project Management has a tutorial on Microsoft Project. For additional help on Microsoft Project, I recommend the tutorial as
http://www.ad642.adminsc.org/ms-project.

   B. REQUIRED WORKBOOK (FREE)
Click here to download. This workbook is used every class. It will be leveraged for your term project.   It is associated with the text book case study.

C. REQUIRED SOFTWARE **(FREE)**
In this course, you will be using the software programs: Microsoft Project (latest version). As a student of this course you can download this program from Boston University Metropolitan

College's partnership in MSDN Academic Alliance Program. Details will be available in the course.

Downloading Software

Follow the instructions shown at: http://www.bu.edu/metit/hw-and-sw/msdn-academic-alliance-software-center/

Mac User? You can use the open source software: http://www.projectlibre.com/
Avoid the cloud version – get the desktop version.

4. Course Overview

This course provides you an integrated introduction to project management. By "integrated" is meant that you will learn all of the fundamental aspects of modern project management, both managerial and technical. You will also become familiar with project management tools, such as MS Project. Finally, in discussions you will learn about and how to apply the skills required of a project manager.

This course will:

- Provide experience in using the concepts, techniques, and tools available to project managers for organizing, planning, and controlling projects.
- Help you develop an appreciation for the managerial, cultural, and social aspects of project management.
- Raise awareness of the importance of the organization's strategy during project selection.
- Provide an understanding of the critical role of work breakdown structures and networks in planning, scheduling, and estimating the status of projects.
- Create an awareness of potential conflicts and scheduling problems that occur on projects.
- Demonstrate how to reliably estimate the status of projects.
- Expose you to MS Project, and demonstrate it usefulness for planning and scheduling projects.

In pursuing these objectives, the course will:

- Use the textbook and cases
- Combine theory and practice
- Combine the strategic with the tactical
- Use relevant concepts to analyze and assess complex project management situations

After successfully completing this course, you will be able to:

- Explain why project management is crucial in today's world.
- Explain the importance of projects in implementing organization strategy.
- Explain what a project is and how projects are initiated.
- Understand that managing projects is an act of balancing the technical and sociocultural aspects of a project.

- Develop network diagrams and estimate project costs and schedules.
- Determine the true status of ongoing projects.

4.1   Class Schedule

The class schedule is available at Blackboard in the "Syllabus" section in a document called "AD642 Class & Homework Schedule." This changes as the semester proceeds, so students need to check regularly for updates. Topics in BOLD are covered by the guest lecturer.

Wk	Date	Class Topic	Homework Assignment (see below)
1	**05/25**	Introductions to IT PM, PMBOK, Charters & Stakeholders (chapter 1) Project Selection: Scoring Sheet	Due: **Module 1 - Individual Assignment 1 - Project Experience Questionnaire** Each student will suggest a charter for the term project.
2	06/01	NPV (chapter 2) Requirements Analysis, Scope & Planning, WBS (see workbook) reference textbook as needed	Due: **Module 1 - Individual Assignment 1 - Project Charter** Professor will decide which charter to use for the term project. Teams are formed.
3	06/08	Cost Estimation See Workbook Four ways to estimate	Due at end of class --(Work in class in teams): **Module 2 - Group Assignment 2 - Scope Statement** After the tutorial in class: MS Project Tutorial use MS Project or Project Libre in teams and create a high level WBS.
4	**06/15**	Agile Software Development	1. **Module 4 Group Assignment: Cost Estimation**
5	06/22	Networks, Critical Path	**Module 2 - Individual Assignment 2 - MS Project Lab**

6	**06/29**	IT Risk Management	**TERM PROJECT MILESTONE 1 DUE**
7	07/06	Earned Value	**Module 4 Individual Assignment: PM Topic Presentation** (not for CS 432)
8	07/13	Quality Management	Research Presentations (graduate students only continues)
9	**07/20**	HR, Communication	Individual Research Assignments are presented. **Module 6 - Group Assignment 6 - Final Presentation Deliverable** uploaded at end of class by team
9	07/27	Procurement	**Module 5 Group Assignment: Milestone 2** (Workbook turned in).
10	08/03	Presentations Exam Review	
11	**08/10**	Final Exam	Course evaluation, Peer evaluation. **Week 6 Ind Assignment: Peer Evaluation**
12	08/17	Remaining Presentations	Optional for Students who have presented already.

4.2 Assignments

These are copied from the online course. Note the links will not work here but only in the online course.

- **Module 1 - Individual Assignment 1 - Project Experience Questionnaire**

Attached Files:
  - CS632_W1_IndAssignment1a_IndQuestionnaire.docx Please complete the attached questionnaire and submit through Blackboard. This document is used by your facilitator to align you into teams for the group project. This assignment is required and not graded.
- **Module 1 - Individual Assignment 1 - Project Charter**

Attached Files:
  - CS632_W1_IndAssignment1b_ProjectCharter.docx In this assignment, you are responsible for creating a project charter for a green IT project (see the final project document for reference). As part of the chartering process, think of three possible projects, create a scoring matrix based on a set of organizational criteria of your own choosing (don't forget to document your assumptions!). Select your highest scoring project and create a charter for that project. A template is provided in the attachment, but you are welcome to use your own template as long as the required charter criteria are included.

The Group Project Overview and project templates are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION.

- ## **Module 2 - Group Assignment 2 - Scope Statement**

Attached Files:

- o <u>CS632_W2_GroupAssignment_ScopeStatement.docx</u> Using the provided sample as a model, create a Project Scope Statement for your green IT Project. It is recommended that you create a Scope Statement that relates to your Final Project for the course.

The Group Project Overview and project templates are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION.

- ## **Module 2 - Individual Assignment 2 - MS Project Lab**

Attached Files:

- o <u>CS632_W2_IndAssignment_MSProjectLab_updated.docx</u>

This is an opportunity to master a project scheduling tool. In this assignment, you will learn how to install the software and create a simple project plan. The project that you will create is detailed in the assignment document.

You have two approaches for your project scheduling assignment:

DESKTOP APPROACH

a. **MS Project**:

- a. <u>http://www.bu.edu/metit/hw-and-sw/msdn-academic-alliance-software-center/</u> (PC only)
- b. Your professor will cover the following slides <u>https://dl.dropboxusercontent.com/u/16674273/MSProject>/MICROSOFT%20PROJECT%20TUTORIAL-two-per-page.pdf</u>

b. **Project Libre**: <u>http://www.projectlibre.org/</u>
 (PC and MAC) – has WBS diagram which MS PROJECT does not. Same interface and functionality as MS project. Please do NOT go with paid cloud version.

- • Tutorial Part 1: Creating your first project – see <u>http://project-management.com/projectlibre-tutorial-part-1/</u>
- • YouTube Video: <u>https://www.youtube.com/watch?v=oiVnWX-J5Mo</u>

VIRTUAL COMPUTER
> <u>http://www.bu.edu/metit/pc-labs/virtual-labs/</u>
> (PC or MAC)

- ## **Module 3 Group Assignment: Project Milestone 1**

Please see the Final Project Document for additional details: The Group Project Overview and project templates are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION.

Milestone 1 Deliverables

Milestone 1 Project Documentation Deliverables

- o Project charter (updates from assignment 1)
- o Stakeholder identification plan
- o Communication management plan
- o Requirements documentation
- o HR roles & responsibilities plan
- o MS Project WBS

Milestone 1 documentation deliverable templates are available in the Kanabar & Warburton Templates and Workbook file (available in Blackboard). Students can use their own templates as long as the required project management elements are included.

- ## **Module 4 Group Assignment: Cost Estimation**

Attached Files:

- o <u>CS632_W4_GroupAssignment_CostEstimation.docx</u>

Use the templates provided, complete the cost estimation assignment using the following four methods:

- o Method 1: ANALOGOUS ESTIMATE OF EFFORT OR COST
- o Method 2: PARAMETRIC METHOD
- o Method 3: THREE POINT METHOD

o   Method 4: WBS METHOD

Please include a summary section outlining which of the methods you believe provide the most accurate results for your project and why.

The Group Project Overview and project templates are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION.

- **Module 4 Individual Assignment: PM Topic Presentation**

Attached Files:

o   CS632_W4_IndAssignment_Presentation.pptx

Select a project management topic of your choice and review with your facilitator; take into account your topic feedback from the previous week's discussion thread. Create a presentation of NO MORE than 5 slides covering a brief overview of your topic, your findings analysis, and any conclusions or recommendations. Coordinate a time with your facilitator to deliver the presentation OR record a voice over within your presentation.

- **Research Paper (Word) Submission – NOT FOR CS 432 students**

First present your PowerPoint in class. Then submit the 3-page word version of your research paper at TURNITIN.COM
You should have got an email from me how to check for originality and submit your document.
See tutorials such as https://guides.turnitin.com/01_Manuals_and_Guides/Student_Guides/01_Student_QuickStart_Guide
if you wish to learn more.

- **Module 5 Group Assignment: Milestone 2**

Please refer to the final project documentation for the full project overview and details on the Milestone 2 deliverable. Templates are available in the Art & Science of Project Management Templates file. Both resources are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION. Students can use their own templates as long as the required project management elements are included.
Milestone 2 documents:

o   Risk identification
o   Risk impact definition
o   Quality management planning
o   MS Project plan outputs (WBS, activity list, milestone list, activity resource requirements, activity duration requirements)

- **Module 6 - Group Assignment 6 - Final Presentation Deliverable**

In this final group assignment, each team will deliver a presentation of approximately 20-25 minutes to Dr. Kanabar and your facilitator (schedule will be coordinated by the lead facilitator). See the final project document for details on the deliverable. The Group Project Overview and project templates are located on the CLASS DISCUSSION forum under GROUP PROJECT INFORMATION. Submit your final presentation and team site link here.

- **Week 6 Ind Assignment: Peer Evaluation**

Attached Files:

o   CS632_W6_IndAssignment_PeerEval.docx

4.3   Homework Schedule

The homework schedule is available at Blackboard in the "Syllabus" section. The homework schedule will change, depending on what we cover in class. Students should check Blackboard regularly for updates. **You must upload all homework only in blackboard**. Your grades will be posted within 2 days of submission.

4.4 Grading Breakdown

Deliverables	Weight
Discussion W1 - Challenges in Software PM.	2%
Discussions/ Assorted	4%
M1 - Individual Project Charter	5%
M2 - Group Scope Statement |	5%
M2 - Individual MS Project Lab |	5%
M3 - Group Milestone 1 |	12%

M4 - Individual PM Topic Presentation |	5%
M4 - Group Cost Estimation |	5%
M5 - Group Milestone 2 |	12%
M6 - Group Final Presentation |	20%
Final Exam (Total Points 100)	25%
Total	100%

5.   Requirements, Policies and Standards

This section describes grading details

5.1   Attendance

Attendance at all classes is mandatory. Attendance will be taken for both online and virtual sessions. If you miss a session you must watch the entire online video. I have enabled auditing of the videos. This provides me attendance analytics for online students. In accordance with the department policy, any student missing more than two classes will be considered to have withdrawn. Students arriving late will be considered to have missed the class.

5.2   Course Structure

The course will be conducted by means of a sequence of lectures. There will be one lecture each week. In each week will cover one or more core Project Management concepts.
Homework will be in the form of Essay Questions and Exercises.
Each week students will be assigned a research topic, which will be the focus of an in class discussion. Every student will be expected to contribute every week.
There is a major Final Project due in the last class that will require the use of Microsoft Project. Students will be required to demonstrate their understanding of the key features of project management, as well as the practical application of MS Project.

5.3   Grading Policy

All students will be expected to demonstrate knowledge of the role of the project manager, the techniques and tools and the sociocultural aspects of project management. To obtain an exceptional grade you have to exceed expectations in your assignments.

Assignments, Exams and Discussions

For this course, there is a set of weekly homework assignments. In addition, there will be weekly discussion topics that you are required to participate in.
A project proposal is to be developed as an assignment in week #10. A full project description and schedule is provided on Blackboard.
The final exam will be scheduled by MET College. It will be closed book. 2 hours.

Grading Standards

Grade inflation is not in the best interests of BU students or the reputation of the institution. I have a responsibility to differentiate the performance of my students, and to reward with high grades only those who do exceptionally well. A Grade of 'A' or 'A minus' will be limited only to those students truly distinguishing themselves in the course. The Academic Policy Committee of Metropolitan College recommends the following guidelines for distinguishing grades.

> A, A-   20%
> B+, B, B-   80%
> Others as merited

While there are strict policies for grades at MET, I do NOT impose a grading curve.

You can expect to be challenged in this course, and excellent, research quality work will be rewarded with an 'A'. If everyone submits high quality work, then everyone will get an 'A'. An 'A' grade requires high quality excellence in all aspects of the course: homework, discussions, final project and exams.

Student participation is defined very clearly as contributing to the discussion each class.

The course will consist of homework, a midterm, a final exam and a final project, weighted as follows:

Discussions:
   Discussion Topics
Midterm:
   The objective of the midterm exam is to establish that all students have learned the terminology and the fundamental technical aspects of operations management.
      Graduate Students – Will be completing research paper.
Project:
   Project will be in 2 phases: Milestone 1 and 2. This is a group project.
      Final Exam:
   The final exam will be closed book exam consisting of essay questions and multiple choice questions.

5.4   Expectations

Homework assignments will be assigned each week and collected the following week. Assignments will be graded. Proper attribution is required for sources.

Minimal preparation is reading the material, and being able to summarize what it is about, what the major issues are, and some recommendations.

Superior preparation involves being able to (i) summarize the situation or problem presented by the case; (ii) recommend a solution to the discussed problem; (iii) support your recommendation with data, relevant details, and analyses; and (iv) discuss innovative solutions, or why obvious solutions might be discounted.

Paper Requirements for CS 632 Students only (NOT CS 432)

You are to complete the final paper using the APA writing style and guideline for citations and references. You can download the student style guide from the American Psychological Association web site or you can purchase the APA style guide from the book store.

The latest version of Microsoft Word has APA formatting built in, so it is now much easier to use APA. The paper is very brief. It is produced in two steps. First a PPT which you present in class and then you write the details.

Papers are meant to be innovative. Remember that work that you use from other authors MUST be referenced. I will be teaching you tools and techniques to make sure that you write a quality paper that is plagiarism free. Since it is assumed that you know little about the topic that you are writing on it is expected that your papers contain information from many different sources. These must be attributed to the author using the American Psychological Association citation and reference format. This is *your* paper and not the cut and paste if someone else's work.

The internet has led to a false sense of what research is all about. Those new to research tend to think that it means spending an afternoon surfing the internet and then cutting and pasting from material available. Keep in mind the internet is:

1. Not quality oriented.
2. The internet has both good stuff and bad stuff, but does not know the difference.

3. We expect to see materials from a wide variety of sources, especially journals.

Timely Presentation of Materials Due

All assignments (papers, homework, etc.) have due dates. These are the LAST DATES that stated material is due. I maintain the right to refuse, or downgrade, any materials presented after due dates. This is not a subject for discussion.

Organize your time and work to turn in the paper before the due date. To be absolutely clear, this means that the paper will be accepted anytime up to that date but not after. Set a time schedule that has the work for the paper built around your personal needs and schedule a "hand in time" well before the last minute. This way, should some unforeseen problem arise, the timely presentation of your paper and its usefulness to the project is not in jeopardy.

Requests For Make Up Examinations

The General position is that make up exams are not given**.**
There is no guarantee that a make-up would be permitted, and any request needs to be in writing and a written verification of the incident will be expected. I recognize that infrequently unfortunate situations do occur that make fulfilling requirements impossible and, as such, I review requests for make-up exams on a case-by-case basis.
I hope that you will appreciate that I do not do this to penalize any individual student but to attempt to assure that there is a level playing field and the total class feels confident that no one has a unique advantage.

Delays

If, for any reason, you are unable to meet any assignment deadline, contact me immediately, and preferably in advance. All assignments must be completed.

5.5   Satisfaction of Department Mission Goals

Course Number	MET CS632	
Course Name	**IT Project Management**	
Department Goal	**Category** (Substantial, Some, None)	**Compliance**
Critical and Innovative Thinking	Substantial	1. The course is taught with 50% lectures and 50% interactive materials and workshops. In most classes, students are expected to present an innovative opinion on a discussion question. 2. Several assignments are open ended problems with no solution. Students develop their own approaches.
Ethics	Substantial	Case studies will be used.
Communication Skills	Substantial	Every student gives a short presentation every week. Every student learns to present and to give short coherent opinions.

		This course requires several written papers. The class also requires a research paper at the end, the highlights of which is also presented as a power point oral presentation in class
Technical Tools & Techniques	Substantial	Several major tools are explored in great detail: WBS, Critical Path Method, Network Diagrams, and Earned Value. Students develop their own projects for their selected case study. A lessons learned presentation is delivered by each student.
Research Skills and Scholarship	Substantial	All assignments require research to back up the student opinions. The students analyze projects and current project research. Students are required to write a research paper at the end of the course covering all course concepts and integrating their tools. Students are required to search outside sources for their data and support their conclusions with research.

2. **Academic Conduct Policy**

The academic conduct policy is summarized below. For the full text of the academic conduct code, please go to:

http://www.bu.edu/met/metropolitan_college_people/student/resources/conduct/code.html

   Any Plagiarism will be reported to the Dean.

Boston University makes available to all faculty the plagiarism tool "Turn It In.com." The site contains millions of papers from around the world. When a paper is submitted to TurnItIn.com, it is analyzed and compared to other work. TurnItIn.com reports if any parts of the paper are copied from other sources without proper attribution.

A Definition of Plagiarism

"The academic counterpart of the bank embezzler and of the manufacturer who mislabels products is the plagiarist: the student or scholar who leads readers to believe that what they are reading is the original work of the writer when it is not. If it could be assumed that the distinction between plagiarism and honest use of sources is perfectly clear in everyone's mind, there would be no need for the explanation that follows; merely the warning with which this definition concludes would be enough. But it is apparent that sometimes people of goodwill draw the suspicion of guilt upon themselves (and, indeed, are guilty) simply because they are not aware of the illegitimacy of certain kinds of "borrowing" and of the procedures for correct identification of materials other than those gained through independent research and reflection."

"The spectrum is a wide one. At one end there is a word-for-word copying of another's writing without enclosing the copied passage in quotation marks and identifying it in a footnote, both of which are necessary. (This includes, of course, the copying of all or any part of another student's paper.) It hardly seems possible that anyone of college age or more could do that without clear intent to deceive. At the other end there is the almost casual slipping in of a particularly apt term

which one has come across in reading and which so aptly expresses one's opinion that one is tempted to make it personal property."

"Between these poles there are degrees and degrees, but they may be roughly placed in two groups. Close to outright and blatant deceit-but more the result, perhaps, of laziness than of bad intent-is the patching together of random jottings made in the course of reading, generally without careful identification of their source, and then woven into the text, so that the result is a mosaic of other people's ideas and words, the writer's sole contribution being the cement to hold the pieces together. Indicative of more effort and, for that reason, somewhat closer to honest, though still dishonest, is the paraphrase, and abbreviated (and often skillfully prepared) restatement of someone else's analysis or conclusion, without acknowledgment that another person's text has been the basis for the recapitulation."

The above paragraphs are from H. Martin and R. Ohmann, The Logic and Rhetoric of Exposition, Revised Edition. Copyright 1963, Holt, Rinehart & Winston.

Academic Conduct Code

I.   Philosophy of Discipline

The objective of Metropolitan College in enforcing academic rules is to promote the kind of community atmosphere in which learning can best take place. This atmosphere can be maintained only so long as every student believes that his or her academic competence is being judged fairly and that he or she will not be put at a disadvantage because of the dishonesty of someone else. Penalties imposed should be carefully determined so as to be no more or no less than required to maintain the desired atmosphere. In defining violation of this code the intent is to protect the integrity of the educational process.

II.   Academic Misconduct

Academic misconduct is conduct by which a student misrepresents his or her academic accomplishments or impedes other students' chances of being judged fairly for their academic work. Knowingly allowing others to represent your work as theirs is as serious an offense as submitting another's work as your own.

III.   Violations of this Code

Violations of this code are acts that constitute an attempt to be dishonest or deceptive in the performance of academic work in or out of the classroom. To alter academic records, or to collaborate with another student or students in an act of academic misconduct. Violations include but are not limited to:

  A. Cheating on examinations. Any attempt by a student to alter his or her performance on an examination in violation of that examination's stated or commonly understood ground rules.
  B. Plagiarism. Any attempt by a student to represent the work of another as his or her own. Plagiarism includes each of the following: copying the answers of another student on an examination, copying or substantially restating the work of another person or persons in any oral or written work without citing the appropriate source, and collaboration with someone else in an academic endeavor without acknowledging his or her contribution (see below for a more detailed definition of plagiarism).
  C. Misrepresentation or falsification of data presented for surveys, experiments, etc.
  D. Theft of an examination. Stealing or otherwise discovering and/or making known to others the contents of an examination that has not yet been administered.
  E. Unauthorized conversation is not allowed during examinations. Any unauthorized conversation may be considered prima facie evidence of cheating.
  F. Knowingly allowing another student to represent your work as his or her own.

G. Forgery, alteration, or knowing misuse of graded examinations, grade lists, or official University records or documents, including but not limited to transcripts, letters of recommendation, degree certificates, alteration of examinations or other work after submission.
H. Theft or destruction of examinations or papers after submission including purposefully altering possible poor performance.
I. Submitting the same work in more than one course without the consent of the instructors involved.
J. Altering or destroying another student's work or records, altering records of any kind, removing materials from libraries or offices without consent, or in any way interfering with the work of others so as to impede their academic performance.
K. Failure to comply with the sanctions imposed under the authority of this code.