

**Syllabus**

**SCHOOL OF BUSINESS AND MANAGEMENT**

**PM 442: Introduction to System Dynamics**

5 Credits

Effective: Spring 2020/2021

*Access to the Internet is required.*

*All written assignments must be in Microsoft-Word-compatible formats.*

*See the library's APA Style Guide tutorial for a list of resources that can help you use APA style.*

## FACULTY

Faculty Name: FACULTY NAME

Contact Information: CONTACT INFORMATION

[INSTRUCTOR MAY INSERT PERSONAL MESSAGE IF DESIRED]

## COURSE DESCRIPTION

This course encourages a transition in student's managerial perspective from linear into nonlinear and holistic, which helps to develop a more realistic understanding of organizational systems. Equipped with proper system dynamics modeling tools and techniques, students will learn to visualize a business organization in terms of the structures and policies that create dynamics and regulate performance. In addition, students will learn about simulation methods that enable them to experience the long-term side effects of decisions, systematically explore new strategies, and develop an understanding of complex systems, within a low-risk environment.

## COURSE RESOURCES

Required and recommended resources to complete coursework and assignments are found on the course [Reading List](#). The reading list can be found under *Course Information* in Blackboard as well as from the library homepage ("Find Your Textbook" button).

**Note:** Required resources that must be purchased by the student are tagged "Purchase from a vendor of your choosing." Required resources with a direct link, "Available through CityU Library", are available electronically at no cost to students.

Students in Canada may purchase course resources from the [Canada Bookstore](#), and students outside the U.S. and Canada should contact their advisor or textbook coordinator for additional information.

Textbook:

Sterman, J. (2000). *Business dynamics: Systems thinking and modeling for a complex world*. Boston: Irwin/McGraw-Hill.

Tilley, S., & Rosenblatt, H. J. (2016). *Systems analysis and design*. Nelson Education.

## CITYU LEARNING GOALS

This course supports the following City University learning goals:

- Professional competency and professional identity
- Lifelong learning

## COURSE OUTCOMES

In this course, learners:

- Demonstrate the importance of system dynamics and development in order to meet user requirements.
- Explain how IT supports business requirements in today's intensely competitive environment, and describe major IT developments and trends.
- Explain the project life cycle and the activities within each phase of the cycle.
- Use of various software engineering analysis and design tools and techniques
- Trace the evolution of system architecture
- Apply database concepts to solve the real-world problems
- Recognize multi-method coverage, including a comparison of structured, object-oriented, and agile systems development methods.
- Identify and apply fundamental project management practices.

## CORE CONCEPTS, KNOWLEDGE, AND SKILLS

- System thinking
- System dynamics modeling
- Information gathering
- User requirement analysis
- Data modeling
- Process modeling
- User interface design
- System architecture
- System development lifecycle
- Agile development
- Managing system project

## OVERVIEW OF COURSE GRADING

The grades earned for the course will be derived using City University of Seattle's decimal grading system, based on the following:

<i>Overview of Required Assignments</i>	<i>% of Final Grade</i>
Discussion Board or Instructor Determined Participation	20%
Quizzes (2 quizzes)	10%
Group project (4 deliverables)	60%
Project Presentation	10%
<b>TOTAL</b>	<b>100%</b>

## SPECIFICS OF COURSE ASSIGNMENTS

The instructor will provide grading rubrics that will provide more detail as to how this assignment will be graded.

### Discussion Board or Instructor Determined Participation

Whether in class, online, or in a mixed mode setting, students will be graded on their participation in classroom discussions; their ability to present, explain, or defend alternative viewpoints; and the degree to which they have mastered the concepts and principles inherent in the study of project management. Written work will be assessed not only on relevance to the subject presented, but also on adherence to good written form, APA style, and professional presentation. The instructor may also choose to create additional activities to support learning in the classroom or online.

Online classes are required to use the Discussion Board. Participation through discussion is an integral part of this course and is defined as active engagement in a discussion or other activity. Instructors will determine the type of questions and their due dates. To provide a structure for balanced participation and allow you to maximize the benefit of the discussion boards, it is recommended that you follow these guidelines for online classes:

- 1) Each response should be at least 150 words in length and provide insight, substance, and reflect a respectful, supportive spirit.
- 2) Each response should demonstrate proper grammar, spelling, syntax, and punctuation. Your style should be lucid, expressive, and easily read.
- 3) Reference to any material must be properly cited using APA format. Cite at least 1 reference per weekly discussion board posting.
- 4) All responses are to be posted to the BlackBoard learning management system. It is advisable to post your original response by mid-week (determined by your instructor) to each discussion board question to allow other students time to read and digest your words and appropriately respond to you. In addition, students are also required to provide at least two (2) substantial feedback/comments to their classmates by end of week to each discussion board question. All responses are due by midnight (or other time requirement determined by your instructor) prior to the next class session.

<i>Components</i>	<i>% of Grade</i>
Timeliness of responses	15%
Quality of responses	50%
Quantity of responses	15%
Position/Support	10%
APA Style (Citations and References)	10%
<b>TOTAL</b>	<b>100%</b>

### Group Project

This group project will help student to understand step by step system development along with project management stages.

To choose a project for this course, you must find an organization that has some business process that you believe could be improved, either by modifying their current information systems or by acquiring a new information system. You do not have to be very familiar with the kind of business or activity the organization does, but it is sometimes helpful. What is very important is that you have access to the

organization, i.e. that you know someone in the organization who is willing to spend time talking to you and to introduce you to others in the organization that you need to talk to.

In defining your project, you need to be able to state the problem that you are going to solve for the organization, i.e. what are they going to be able to do better if they adopt the system that you recommend? Another important factor to consider is the size of the project. Do not pick a project that will affect all departments or units of a very large organization, or that impacts a lot of different processes. Instead, choose something that affects just one department, or one small organization, and one process (but more than one person!).

Each deliverable will count for 25% of project (15% of your grade). In addition, your final project presentation will count for 10% of your course grade. The results of the peer evaluations will effect of your group project points. Note that unsatisfactory peer evaluation will be used as a weight for calculating your entire project grade. Finally, points will be deducted from each team member's project score for any missing or late status reports.

**Second chance:** For grade improvement, your group are encouraged to do one revision for each of 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> deliverable but not 4<sup>th</sup>

<i>Components</i>	<i>% of Grade</i>
Deliverable 0: Project Proposal	0%
Deliverable 1: Project Plan	25%
Deliverable 2: As-Is Model	25%
Deliverable 3: System Proposal	25%
Deliverable 4: System Design and Implementation	25%
<b>TOTAL</b>	<b>100%</b>

## **COURSE POLICIES**

### **Late Assignments**

A critical aspect of management is to meet predefined deadlines. Therefore, all assignments are expected to be submitted when due. No late assignments are accepted. Life-situations do occur. When an issue arises coordinate with the instructor **PRIOR TO** the assignment's due date and the due date may be adjusted. It is in the best interest of the student to ensure that all assignments are submitted on time.

### **Participation**

Class participation will be evaluated during class. Participation includes being prepared for class discussions and contributing meaningful content when appropriate. It also includes individual effort contributed to team projects.

## **Professional Writing**

Assignments require error-free writing that uses standard English conventions and logical flow of organization to address topics clearly, completely, and concisely. CityU requires the use of APA style.

## **UNIVERSITY POLICIES**

Students are responsible for understanding and adhering to all of City University of Seattle's academic policies. The most current versions of these policies can be found in the [University Catalog](#) that is linked from the CityU Web site.

### **Antidiscrimination**

City University of Seattle and its staff and faculty are committed to supporting our students. We value equity, diversity, and inclusion as a way of life as well as the educational opportunities it provides. CityU will not tolerate any form of discrimination based on race, color, ethnicity, sexual orientation, gender identification, socioeconomic status, or religious values. If you have experienced any discrimination based on any of the above, we encourage you to report this to the University. Please report this to your instructor. If you do not feel safe reporting this to your instructor, please report to the Provost or to the Vice President of Student Affairs.

### **Non-Discrimination & Prohibition of Sexual Harassment**

City University of Seattle adheres to all federal, state, and local civil rights laws prohibiting discrimination in employment and education. The University is committed to ensuring that the education environment is bounded by standards of mutual respect and safety and is free from discriminatory practices.

In the U.S., the University is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex include sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy or parenting status. Sexual harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, which are prohibited under Title IX and by City University of Seattle policy. City University of Seattle also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Questions regarding Title IX, including its application and/or concerns about noncompliance, should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, visit <https://my.cityu.edu/titleix> or contact the Title IX Coordinator.

In Canada, in compliance with the British Columbia Human Rights Code, the Alberta Human Rights Act, WorksafeBC, and the Workers' Compensation Board of Alberta, the University believes that its environment should at all times be supportive and respectful of the dignity and self-esteem of individuals. Discrimination, harassment and bullying conduct, whether through person to person behaviour or via electronic communications such as email or social media is not acceptable and will not be tolerated. As an educational institution, it is our responsibility to cultivate an environment of excellence, equity, mutual

respect and to recognize the value and potential of every individual. The University will take all necessary steps to meet or exceed the requirements of the law to prevent discrimination, harassment and bullying. The Respectful Workplace Policy for the prevention of discrimination, harassment and bullying policy and procedure can be found at <https://www.cityu.edu/discover-cityu/about-cityu/> under the Policies section or at <https://www.cityuniversity.ca/about/>.

## **Religious Accommodations**

City University of Seattle has a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The University's policy, including more information about how to request an accommodation, is available in the University Catalog and on the my.cityu.edu student portal. Accommodations must be requested by the 20% mark of this course (e.g. day 14 of a ten-week course, day 7 of a 5-week course) using the Religious Accommodations Request Form found on the student dashboard in the my.cityu.edu student portal.

## **Academic Integrity**

Academic integrity in students requires the pursuit of scholarly activity that is free from fraud, deception and unauthorized collaboration with other individuals. Students are responsible for understanding CityU's policy on academic integrity and adhering to its standards in meeting all course requirements. A complete copy of this policy can be found in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Academic Integrity Policy*.

## **Attendance**

Students taking courses in any format at the University are expected to be diligent in their studies and to attend class regularly.

Regular class attendance is important in achieving learning outcomes in the course and may be a valid consideration in determining the final grade. For classes where a physical presence is required, a student has attended if they are present at any time during the class session. For online classes, a student has attended if they have posted or submitted an assignment. A complete copy of this policy can be in the [University Catalog](#) under *Student Rights and Responsibilities* on the page titled *Attendance*.

## **Final Assignment Due Date**

Final assignments for each class at CityU must be due on or before the final date of the course as indicated in the university's course information system. Due dates that extend beyond the final date of the course may negatively impact tuition funding for students.

## **SUPPORT SERVICES**

### **Disability Services Accommodations Statement**

Students with a documented disability who wish to request academic accommodations are encouraged to contact Disability Support Services to discuss accommodation requests and eligibility requirements.

Please contact Disability Support Services at [disability@cityu.edu](mailto:disability@cityu.edu) or 206.239.4752 or visit the [Disability Support Services](#) page in the my.cityu.edu portal. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with course instructors.

### **Library Services**

CityU librarians are available to help students find the resources and information they need to succeed in this course. Contact a CityU librarian through the [Ask a Librarian](#) service, or access [library resources and services online](#), 24 hours a day, seven days a week.

### **Smarthinking Tutoring**

CityU students have access to free online tutoring offered through Smarthinking, including writing support, from certified tutors 24 hours a day, seven days a week. Contact CityU's Student Support Center at [help@cityu.edu](mailto:help@cityu.edu) to request a user name and password.