

EEL 4063 Introduction to Business Decisions
Fall 2022 Dates: August 22, 2022 – December 2, 2022**GENERAL INFORMATION**

**PROFESSOR INFORMATION****Instructor: Prof. Reynaldo Max Padro****Office Hours: By appointment****E-mail: rpadro@fiu.edu****Course due dates are according to Eastern Standard Time (EST) time zone.****COURSE DESCRIPTION**

The course covers fundamental concepts and methods for making decisions based on economic analysis. These methods are suitable for problems involving capital allocations and investments as well as evaluation and selection of engineering projects. Students learn how to define and select appropriate economic criteria for the evaluation of alternatives as well as how to use proper methods for evaluating alternatives under deterministic conditions.

Key concepts include capital budgeting; evaluation of mutually exclusive alternatives, replacement analysis; effects of taxes, depreciation, and inflation; and economic evaluation of projects in the public sector. The remainder of the course deals with decision making when economic factors are not sufficient as the only evaluation criteria due to (i) uncertainty in the outcome (in which case risk attitudes must be brought to bear on the problem); (ii) nonlinearity of preference over money, and (iii) multiplicity of evaluation criteria (some of which cannot be expressed in terms of money).

COURSE LEVEL STUDENT LEARNING OUTCOMES

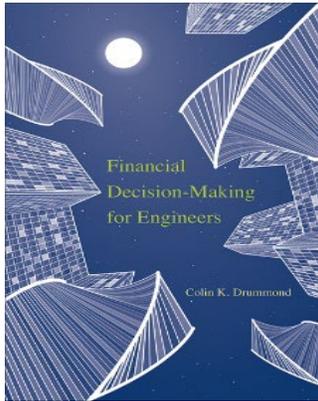
After completing this course, students will be able to:

1. *Describe the nature and types of decision-making situations that warrant the use of engineering economics analysis.*
2. *Analyze the fundamental concepts of cost accounting and financial statements.*
3. *Employ the concepts of time value of money and equivalence factors.*
4. *Appraise the economic viability of projects.*
5. *Recommend the best option from several alternatives.*
6. *Explain the options and impact of Intellectual Property.*
7. *Describe the use and application of Concept Maps.*
8. *Employ the concepts of Capital Budgeting and Replacement Analysis in making Business Decisions.*
9. *Analyze the impact of Leadership in making Business Decisions.*

ABET LEVEL STUDENT LEARNING OUTCOMES

1. *an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.*
4. *an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.*
7. *an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.*

REQUIRED TEXTBOOK



Financial Decision-Making for Engineers
Author: Colin K. Drummond
Yale University Press

ISBN-10: 0300192185
ISBN-13: 978-0300192186



TECHNICAL REQUIREMENTS AND SKILLS

One of the greatest barriers to taking a course is a lack of basic computer literacy. By computer literacy we mean being able to manage and organize computer files efficiently and learning to use your computer's operating system and software quickly and easily. Keep in mind that this is not a computer literacy course; but students enrolled are expected to have moderate proficient using a computer. Please go to the "[What's Required](#)" webpage to find out more information in this subject.

Privacy Policy Statements for Partners and Vendors:

- [Canvas](#)
- [Microsoft](#)
- [Zoom](#)
- [Google](#)
- [Adobe](#)

ACCESSIBILITY AND ACCOMMODATION

The Disability Resource Center collaborates with students, faculty, staff, and community members to create diverse learning environments that are usable, equitable, inclusive and sustainable. The DRC provides FIU students with disabilities the necessary support to successfully complete their education and participate in activities available to all students. If you have a diagnosed disability and plan to utilize academic accommodations, please contact the Center at 305-348-3532 or visit them at the Graham Center GC 190.

For additional assistance please contact FIU's [Disability Resource Center](#).

Web Accessibility Statements for Partners and Vendors:

- [Canvas](#)
- [Microsoft](#)
- [Zoom](#)
- [Google](#)
- [Adobe](#)

Please visit or [ADA Compliance](#) webpage for additional information about accessibility involving the tools used in this course.

EXPECTATION OF THIS COURSE

Students are expected to:

- review the getting started page located in the course modules
- introduce yourself to the class during the first week by posting a self-introduction in the appropriate discussion
- take the practice quiz to ensure that your computer is compatible with the learning management system, Canvas
- interact with instructor and peers
- review and follow the course calendar and weekly outlines
- respond to discussions by the due date specified. No late work will be accepted
- respond to emails within 1 days
- submit assignments by the corresponding deadline.

The instructor will:

- respond to discussion postings within 2 days of the deadline.
- respond to emails within 1 day
- grade assignments within 2 days of the assignment deadline.

UNDERGRADUATE COURSE PREREQUISITES

You are required to have completed EGN 3613 Engineering Economy or equivalent. Also, ability to work insanely hard in a team environment and take critical feedback dispassionately.

COMMUNICATING WITH THE INSTRUCTOR

Communication in this course will take place via the Canvas Inbox. Check out the [Canvas Conversations Tutorial](#) or [Canvas Guide](#) to learn how to communicate with your instructor and peers using Announcements, Discussions and the Inbox.

RELIGIOUS HOLIDAYS

The University's policy on religious holidays as stated in the University Catalog and Student Handbook will be followed in this class. Any student may request to be excused from class to observe a religious holy day of his or her faith.

RULES, POLICIES, AND ACADEMIC MISCONDUCT

Assignments from the text and other resources are listed later for each weekly session. Students are expected to pace their learning according to the posted course assignments.

It is expected that interactive learning and teaching will enrich the learning experience of all students, and that each student will work in partnership with the professor to create a positive learning experience for all. Student engagement is a necessary condition for an effective learning experience and includes contributions to debate and discussion (if any), positive interactive learning with others, and an enthusiastic attitude towards inquiry. Everyone is expected to be a positive contributor to the learning community, and students are expected to share the responsibility of teaching each other.

Statement of Understanding between Professor and Student

Every student must respect the right of all to have an equitable opportunity to learn and honestly demonstrate the quality of their learning. Therefore, all students must adhere to a standard of academic conduct, demonstrating respect for themselves, their fellow students, and the educational mission of the University. As an FIU student taking this class:

- I will not represent someone else's work as my own
- I will not cheat, nor will I aid in another's cheating
- I will be honest in my academic endeavors
- I understand that if I am found responsible for academic misconduct, I will be subject to the academic misconduct procedures and sanctions as outlined in the Student Handbook

Failure to adhere to the guidelines stated above may result in one of the following:

Expulsion: Permanent separation of the student from the University, preventing readmission to the institution. This sanction shall be recorded on the student's transcript.

Suspension: Temporary separation of the student from the University for a period of time.

By taking this course, I promise to adhere to the policies procedures of the [FIU Student Code of Academic Integrity](#) and Academic Misconduct: <http://compliance.fiu.edu/> .

PANTHERS CARE & COUNSELING SERVICES (CAPS)

If you are looking for help for yourself or a fellow classmate, Panthers Care encourages you to express any concerns you may come across as it relates to any personal behavior concerns or worries you have, for the classmate's well-being or yours; you are encouraged to share your concerns with [FIU's Panthers Care website](#).

[Counseling and Psychological Services \(CAPS\)](#) offers free and confidential help for anxiety, depression, stress, and other concerns that life brings. Professional counselors are available for same day appointments. Don't wait to call 305-348-2277 to setup a time to talk or visit the online self-help portal.

ASSESSMENTS

In order to mitigate any issues with your computer and online assessments, it is very important that you make sure that your computer meets the minimum hardware requirements.

All assessments will auto-submit when (1) the timer runs out OR (2) the closing date/time is reached, whichever happens first. For example, if a quiz has a closing time of 5:00pm but the student begins the exam at 4:55pm, the student will only have 5 minutes to complete the quiz.

Assessments in this course are not compatible with mobile devices and should not be taken through a mobile device. For further help please contact FIU Support Services.

ASSIGNMENTS

1. Weekly Homework (9 assignments @ 50 points each for a total of 450 points). Details and due dates are listed in Canvas and a rubric is listed for grading.
2. Discussion Boards (6 @ 30 points each for a total of 180 points). Details and due dates are listed in Canvas and a rubric is listed for grading.
3. Online Quizzes (5 @ 30 points each for a total of 150 points). Details and due dates are listed in Canvas and a rubric is listed for grading.
4. Case Assignments (220 total points). Details and due dates are listed in Canvas and a rubric is listed for grading.

Late assignments will not be accepted. Advise ahead of time if you have any issues.

GRADING CRITERIA

Experiential Learning Assignments	Possible Points
Homework (9 @ 50 points each)	450
Discussion Boards (6 @ 30 points each)	180
Quizzes (5 @ 30 points each)	150
Case Assignment #1	120
Case Assignment #2	100
Total Available Points	1,000

GRADING POLICY

Letter Grade	Range	Letter Grade	Range	Letter Grade	Range
A	930-1,000	B	869-830	C	759-700
A-	929-900	B-	829-800	D	699-600
B+	899-870	C+	799-760	F	<600

Department Regulations Concerning Incomplete Grades. To qualify for an Incomplete, a student:

1. Must contact the instructor or secretary before or during missed portion of class
2. Must be passing the course prior to that part of the course that is not completed
3. Must make up the incomplete work through the instructor of the course
4. Must see the instructor. All missed work must be finished before last two weeks of the following term

WEEKLY SCHEDULE

Class	Module	Topic/Pre-Class Assignments
August 23	Module 0	Course introduction and individual presentations <ul style="list-style-type: none"> • Read the Syllabus and prepare a list of questions if needed • Discussion Board #1 (Introductions) due Aug 28 @ 11:59pm • Read Chapter 1
August 30	Module 1	Chapter 1: Decision Making <ul style="list-style-type: none"> • Chapter 1 (Decision Making) Homework due Sep 11 at 11:59pm • Read Chapter 2
September 6		No School – Labor Day Weekend
September 13	Module 2	Chapter 2: Financial Statements <ul style="list-style-type: none"> • Discussion Board #2 (Financial Statements) due Sep 18 at 11:59pm • Chapter 2 (Financial Statements) Homework due Sep 18 at 11:59pm • Quiz #1 (Financial Statements) due Sep 18 at 11:59pm • Read Chapter 3
September 20	Module 3	Chapter 3: Time Value of Money <ul style="list-style-type: none"> • Chapter 3 (Time Value of Money) Homework due Sep 25 at 11:59pm • Read Chapter 4
September 27	Module 4	Chapter 4: Applications of the Time Value of Money <ul style="list-style-type: none"> • Discussion Board #3 (Time Value of Money) due Oct 2 at 11:59pm • Quiz #2 (Time Value of Money) due Oct 2 at 11:59pm
October 4	Module 5	Chapter 4: Applications of the Time Value of Money <ul style="list-style-type: none"> • Chapter 4 (Applications of Time Value of Money) Homework due Oct 9 at 11:59pm • Case Assignment #1 (Time Value of Money) due Oct 9 at 11:59pm • Read Chapter 5
October 11	Module 6	Chapter 5: Comparing Alternatives <ul style="list-style-type: none"> • Discussion Board #4 (Comparing Alternatives) due Oct 16 at 11:59pm • Chapter 5 (Comparing Alternatives) Homework due Oct 16 at 11:59pm • Read Chapter 6
October 18	Module 7	Chapter 6: Intellectual Property <ul style="list-style-type: none"> • Quiz #3 (Intellectual Property) due Oct 23 at 11:59pm • Chapter 6 (Intellectual Property) Homework due Oct 23 at 11:59pm • Discussion Board #5 (Intellectual Property) due Oct 23 at 11:59pm • Read Chapter 7
October 25	Module 8	Chapter 7: Concept Maps <ul style="list-style-type: none"> • Chapter 7 (Concept Maps) Homework due Oct 30 at 11:59pm • Read Chapter 8
November 1	Module 9	Chapter 8: Risk and Uncertainty <ul style="list-style-type: none"> • Quiz #4 (Risk and Uncertainty) due Nov 6 at 11:59pm • Chapter 8 (Risk and Uncertainty) Homework due Nov 6 at 11:59pm • Read Chapter 9
November 8	Module 10	Chapter 9: Capital Budgeting and Replacement Analysis <ul style="list-style-type: none"> • Discussion Board #6 (Capital Budget) due Nov 13 at 11:59pm • Chapter 9 (Capital Budget) Homework due Nov 13 at 11:59pm • Read Chapter 10
November 15	Module 11	Chapter 10: Leadership <ul style="list-style-type: none"> • Quiz #5 (Cash Flows) due Nov 27 at 11:59pm • Case Assignment #2 (Capital Budgeting) due Nov 27 at 11:59pm
November 22		No School – Thanksgiving Week
November 29	Module 12	Class Summary
December 5		Final Exam Week: No final exam for this class