

EGEN 330 Business Fundamentals for Technical Professionals

Montana State University—Bozeman

Fall 2018

3 Semester Credits

Instructor: Bruce Zignego

Email: bruce.zignego@montana.edu

Office: Roberts Hall 402

Class Meeting Times: 2:10-3:25PM; M, W Sec. 001
4:10-5:25PM; M, W Sec. 002

Course Prerequisite: Junior Standing, M171Q or M165Q

Telephone: Office: 406.994.6951

Mobile: 406.539.7441

Office Hours: 12-1pm; M, T, W, & R

Location: Sec. 001 – Johnson 346, Sec. 002 – Roberts 101

Course Materials:

Required Textbooks:

“Core Concepts of Accounting”, Cecily A. Raiborn, Wiley 2nd Edition

“Engineering Economic Analysis”, Newnan et al, Oxford Press 13th Edition

Required iClicker: iClicker will be used throughout the semester to improve the comprehension of the respective concepts.

Highly Recommended Calculator: TI-83, TI-84, TI-89, TI-BAII (or equivalent calculator e.g. HP12C).

Required Website: Desire2Learn: <https://ecat.montana.edu>

Recommended Website: www.oup.com/us/newnan

Exclusion: If EGEN 325 or equivalent has been taken by the student you can NOT enroll in this course.

Course Goal:

Develop business and financial acumen for STEM students.

Course Outcomes:

- Students will understand financial statements and how they are used in business including the income statement, the balance sheet, the cash flow statement and retained earnings statement and will be able to make decisions based on this understanding.
- Students will be able to identify investment alternatives, define the planning horizon, specify the discount rate, estimate the cash flows, compare the alternatives and perform supplementary analyses using the properties of the time value of money.
- Students will have the ability to perform economic analysis of projects.
- Students will be able to recognize ethical and professional responsibilities in engineering situations and make informal judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
- Students will comprehend basic accounting concepts and practices.

Course Overview:

The first part of the course will give the student an overview of business. Then the course will progress to the development of the students understanding of financial statements and basic accounting practices. The course will then address the factors and their relationships that go into economic modeling and decision making. The course will progress to the mathematical treatment of the time value of money and the means of incorporating this into economic decisions. The mathematical treatment of net present worth, internal rate of return, depreciation and taxes will be addressed along with their contribution to the decision making process. Personal finances (IRA, 401K, buying a house, etc.) will be explained in the course. The final portion of the class will introduce the student to the fundamentals of project management. The definition, planning, implementation and closure phases will be explored.

Desire2Learn:

Course materials will be handed out via the D2L system. Students can also check their current grading for the course in D2L. Quizzes will be taken using D2L. Homework will be taken via Quizzes in D2L. Projects will be handed in via Assignments of D2L.

Financial Calculator and/or MS Excel:

The use of financial calculators for homework, quizzes and exams is not only acceptable but is highly recommended. The student who masters the use of the financial calculator will greatly improve their efficiency in solving problems. Also the use of Excel (or equivalent spreadsheet software) for projects will be required. You will need to ensure that you label your material adequately so that the instructor can follow the problem solving logic.

Grading:

Grades will be based on the following weighting:

Exams	50% (1 of 4 dropped, 3 remaining equally weighted)
Homework	10%
iClicker	10%
Term Project (s)	20%
Quizzes	10%

Grade scoring will be:

A 93-100	A- 90-92	B+ 87-89	B 83-86	B- 80-82	C+ 77-79	C 73-76
C- 70-72	D+ 67-69	D 63-66	D- 60-62	F 0-59		

- There will be four exams given during the semester including the final exam. The first three exams will address only the materials covered since the prior exam or beginning of class. The final exam will have a component of review for the entire semester. Exam make-ups, if any, will be considered on a case by case basis. The exams will be a combination of multiple choice and short answers. Showing your work even on the multiple choice questions is required. A correct multiple choice answer AND demonstrated work is required to get credit for the exam multiple choice questions.
- Homework is due on Friday night at midnight of each week unless otherwise stated. Scores for homework received late will be divided in half. The lowest homework grade of the semester will be dropped. The homework will be submitted via Desire2Learn. The homework will be multiple choice and will be automatically graded.
- Students will be required to complete two team projects that will employ many of the techniques discussed in the course and provide a written project report. Projects will be completed by a team of 3 students. The team will be selected by the instructor. You can find your team under groups in D2L. The first project is 25% of the total project grade. The final project is 75% of the total project grade. The final project has two submissions, first pass and second pass. The first pass is 75% of the final project grade. The second pass is worth 25% of the final project grade. More detailed information will be given via D2L during the semester.
- There will be 5 quizzes given throughout the semester. The quizzes will be given via Desire2Learn. There will be a specified time window to start the quiz (usually Wed 5pm to Friday 11:59 pm). There will be a time limit on taking the quiz. There will be no make-ups given for the quizzes.
- All homework, quizzes and exams are open book, open notes, and the use of a financial calculator is recommended.
- 10% of your grade will be via iClicker evaluating your class participation. Questions will be presented in class, your grade will be based on a combination of participation and answering questions correctly. The 4 lowest iClicker grades of the semester will be dropped.
- If grading of an exam, homework, quiz or project is appealed by a student, the instructor reserves the right to re-grade the entire document.

Class Participation:

The student will be required to bring and use an iClicker. Class participation will be measured using i-clickers.

1. Register your i-clicker at the MSU student i-clicker registration site (<https://www3.montana.edu/iClicker/>). *** Use the MSU registration site only. No other registration site will get your clicker information into the MSU database. The registration site is also found by going to the MSU home page> Current Students> in the Academic Info column find the iClicker Registration link]

i-clickers must be registered every semester. The database is reset at the end of every semester since clickers get traded and sold.

Can't tell what your iClicker ID is? It is on the back of your iClicker on the UPC bar code. The ID is hexadecimal so they only contains numbers or letters A-H. In most models the ID is also printed on a label inside the battery case. If all else fails, you can take your iClicker to the MSU Bookstore and they can read it electronically.

2. MSU strongly advises all students using clickers to change the batteries at the start of each school year. The iClicker takes three "AAA" batteries – you may have to shake it hard to get the last battery out! You should do this even if you are "not yet seeing a "Low Battery" indicator light – sometimes the clicker cannot reach the instructor's base station even with a battery that has some life left.
3. Use your i-clicker in class to receive participation points. Be sure to check D2L regularly to make sure your clicker participation points are being counted.
4. If you have any questions about registration of clickers, or if you receive a solicitation to register your clicker via text message or email, you should contact the MSU ITC Helpdesk at: helpdesk@montana.edu or 994-1777.

Behavioral Expectations:

Montana State University expects all students to conduct themselves as honest, responsible and law-abiding members of the academic community and to respect the rights of other students, members of the faculty and staff and the public to use, enjoy and participate in the University programs and facilities. For additional information reference see http://www2.montana.edu/policy/student_conduct/cg600.htm.

Collaboration:

University policy states that, unless otherwise specified, students may not collaborate on graded material. Any exceptions to this policy will be stated explicitly for individual assignments. If you have any questions about the limits of collaboration, you are expected to ask for clarification.

Plagiarism:

Paraphrasing or quoting another's work without citing the source is a form of academic misconduct. Even inadvertent or unintentional misuse or appropriation of another's work (such as relying heavily on source material that is not expressly acknowledged) is considered plagiarism. If you have any questions about using and citing sources, you are expected to ask for clarification.

Student Educational Records:

All records related to this course are confidential and will not be shared with anyone, including parents, without a signed, written release. If you wish to have information from your records shared with others, you must provide written request/authorization to the office/department. Before giving such authorization, you should understand the purpose of the release and to whom and for how long the information is authorized for release.

Academic Misconduct:

Section 420 of the Student Conduct Code describes academic misconduct as including but not limited to plagiarism, cheating, multiple submissions, or facilitating others' misconduct. Possible sanctions for academic misconduct range from an oral reprimand to expulsion from the university.

Academic Expectations:

Section 310.00 in the MSU Conduct Guidelines states that students must:

- A. be prompt and regular in attending classes;
- B. be well prepared for classes;
- C. submit required assignments in a timely manner;
- D. take exams when scheduled;
- E. act in a respectful manner toward other students and the instructor and in a way that does not detract from the learning experience; and
- F. make and keep appointments when necessary to meet with the instructor.

In addition to the above items, students are expected to meet any additional course and behavioral standards as defined by the instructor.

Students with Disabilities:

If you have a documented disability for which you are or may be requesting an accommodation(s), you are encouraged to contact your instructor and Disabled Student Services as soon as possible.

Email Policy:

I expect that you will check your university email at least every 2 days.

Teaching Assistants:

This class is fortunate to have the support of a graduate student teaching assistant (GTA) and several undergraduate teaching assistants (UG TAs) to assist and facilitate with student learning. These TAs should be treated with respect and all interactions should be professional. The MSU Student Code of Conduct (http://www.montana.edu/policy/student_conduct/#codeofconduct) requires this of all students. Violations of this policy with TAs (or anyone else) will not be tolerated and will be handled according to the procedures described in the policy. TAs have very specific assignments from the course instructor and therefore may not have comprehensive knowledge of all course requirements and content. If questions arise requiring clarification of class content or subject material, please direct them to the course instructor. In their instruction role, the TAs may be responsible for assigning grades. If a student disagrees with the decision made by the TA then they are to bring that concern directly to the course instructor and not challenge the TA regarding their decision.

Email Policy:

I expect that you will check your university email at least every 2 days.

Teaching Assistants:

This class is fortunate to have the support of a graduate student teaching assistant (GTA) and several undergraduate teaching assistants (UG TAs) to assist and facilitate with student learning. These TAs should be treated with respect and all interactions should be professional. The MSU Student Code of Conduct (http://www.montana.edu/policy/student_conduct/#codeofconduct) requires this of all students. Violations of this policy with TAs (or anyone else) will not be tolerated and will be handled according to the procedures described in the policy. TAs have very specific assignments from the course instructor and therefore may not have comprehensive knowledge of all course requirements and content. If questions arise requiring clarification of class content or subject material, please direct them to the course instructor. In their instruction role, the TAs may be responsible for assigning grades. If a student disagrees with the decision made by the TA then they are to bring that concern directly to the course instructor and not challenge the TA regarding their decision.

EGEN 330 Planned Schedule

Core Concepts of Accounting (CCA)

Engineering Economic Analysis (EEA)

Week of	Day	Topic	Assignment	Homework
27-Aug	M	Course Intro, Syllabus, etc		
	M	Intro to Role of Acctg; Concepts of Accounting	Chapter 1-2 (CCA)	
	M	Intro to Ethics	D2L - Ethics #1	
29-Aug	W	The Mechanics of Double Entry Accounting	Chapter 3	HWK E1
31-Aug	F			HWK 1; C 1-3 (CCA)
3-Sep	M	LABOR DAY HOLIDAY - NO CLASS		
	W	Accounting for Assets, Liabilities and Ownership Interests	Chapter 4-8	
	W	Personal Finance Project Introduction		
7-Sep	F	Quiz 1 (Chapters 1-6) given via D2L		HWK 2; C4-6 (CCA)
10-Sep	M	Personal Finance Slides		
	W	Analysis of Accounting Data	Chapter 9-10	
14-Sep	F			HWK 3; C 7-10 (CCA)
17-Sep	M	Managerial Accounting	Chapter 11-12	
	W	Managerial Accounting	Chapter 11-12	
	W	Ethics Cases; review NSPE ethics exam	D2L - Ethics #2	
21-Sep	F	Quiz 2 (Chapters 7-12) given via D2L		HWK 4; C11-12 (CCA)
24-Sep	M	EXAM 1 (CCA - Chap 1-12); 6-8pm Barnard 103 & 108		
	W	Review Exam 1; Interest & Equivalence	Chapter 3 (EEA)	
1-Oct	M	Interest & Equivalence	Chapter 3	
	W	Equivalence for Repeated Cash Flows	Chapter 4	
	W	Personal Finance Project 1 Due, Hand in Via D2L Dropbox		
	F			HWK 5; C 3 (EEA)
8-Oct	M	Equivalence for Repeated Cash Flows	Chapter 4	
	M	Final Project Introduction		
	W	Present Worth Analysis	Chapter 5	
	F			HWK 6; C 3-4 (EEA)
15-Oct	M	Present Worth Analysis	Chapter 5	
	W	Annual Cash Flow Analysis	Chapter 6	
19-Oct	F	Quiz 3 (Chapters 3-5) given via D2L		HWK 7; C 4-5 (EEA)
22-Oct	M	Annual Cash Flow Analysis; Review for Exam	Chapter 6	HWK 8; C 6 (EEA)
24-Oct	W	EXAM 2 (Chapters 3-6 EEA); 6-8pm Reid 108 & 101		
29-Oct	M	Review Exam 2; Rate of Return Analysis	Chapter 7	
	W	Rate of Return Analysis; Other analysis techniques	Chapter 7, 9	
31-Oct	W	Final Project (first pass) Due, Hand in via D2L Dropbox		
	F			HWK 9; C7,9 (EEA)
5-Nov	M	Depreciation, Income Tax	Chapter 11, 12	
	W	Depreciation, Income Tax	Chapter 11, 12	
12-Nov	M	VETERANS DAY NO CLASS		
	W	Ethics Cases	D2L - Ethics - #3	
14-Nov	W	Final Project (second pass) Due, Hand in via D2L Dropbox		
16-Nov	F	Quiz 4 (Chapters 6,7,9,11,12) given via D2L		HWK 10; C 11,12 (EEA)
19-Nov	M	THANKSGIVING STUDY ON OWN		
	W	THANKSGIVING HOLIDAY NO CLASS		
26-Nov	M	Depr. & Inc Tax, Replacement Analysis	Chapter 11, 12, 13	
28-Nov	W	Replacement Analysis	Chapter 13	
	F			HWK 11; C 13 (EEA)
3-Dec	M	EXAM 3 (EEA - Chap 7,9,11,12,13); 6-8pm Barnard 103 & 108		
	W	Exam 3 Review		
	W	Ethics Cases	D2L - Ethics - #4	HWK E2
	W	Final Exam Review		
7-Dec	F	Quiz 5 Ethics Review - given via D2L		
12-Dec	W	FINAL EXAM; 6-8pm place TBD		
		Final Exam will cover Ethics and will have a review of CCA & EEA		