

# TE 566: Finance for Engineering Management

**Technology Entrepreneur Center**  
GRAINGER ENGINEERING



## Fall 2022

- 2 credit hours
- Online

## Instructor

**Dr. Brian Lilly**

[blilly@illinois.edu](mailto:blilly@illinois.edu)

## Zoom Meeting Info

**Meeting ID:**

**873 4680 9272**

**Password: 189657**

<https://illinois.zoom.us/j/87346809272?pwd=NDRNdkZXNHpjVdoMGVBVmhFQitDZz09>

## Course Purpose

Finance for Engineering Management introduces engineers to the important elements and metrics of business finance and contemporary engineering economics. The course covers a broad range of topics and explains the relationships between customers, employees, and shareholders in a corporate environment.

## Learning Objectives

Upon completion of this course, you will understand the cornerstone financial concepts for engineering management to enable analysis of engineering projects from a financial perspective:

1. income statements,
2. the balance sheet,
3. cash flow statements,
4. financial ratio analysis,
5. corporate organization,
6. the time value of money and net present value, and
7. discounted cash flow analysis.

## Required Texts

The class text is inexpensive and available through Amazon.

**Title: Understanding Financial Statements – A Primer of Useful Information**

**Author:** Gill and Chatton

**ISBN:** 978-1-56052-425-0

**ISBN-10:** 1-56052-425-1

## Grading

**10%** - Bullet points of video lectures

**30%** - Homework (no credit given for late homework)

**10%** - Quiz

**50%** - Final software program

## Grading Scale

A	94-100%	C	70-74%
A-	90-93%	C-	67-69%
B+	86-89%	D+	63-66%
B	82-85%	D	60-63%
B-	79-81%	F	<60%
C+	75-78%		

## Homework and Assignment

Assignments should be submitted through Canvas. Homework assignments and due dates will be posted on the syllabus in Canvas. A major homework effort involves producing a finance program in excel or a programming language of your choice that performs many of the basic functions that a small business software package is designed to do. Various modules will be created throughout the course with the final program being the integration of the various modules. Homework assignments will be announced throughout the course.

There are 13 videos in the course. These are my pre-recorded lectures from a past semester. **Please turn in a 10-bullet point list of takeaways from the lecture.** This will ensure that you have viewed the video. Submit by 2:00pm Central Time each Thursday to the video bullet points folder found in the assignments tab.

## Quiz

For all students, the quiz will be open book submitted through Canvas. It is essentially a long homework assignment.

## Outline of Sessions

As you watch the lectures and the tutorials about programming, the following assignments will help track progress.

- **Homework #1** - Accounting tools assignment.
- **Homework #2** - Balance sheet assignment.
- **Homework #3** - Income sheet assignment.
- **Midterm Quiz** - The Midterm quiz, this will cover material from the first 8 lectures
- **Computer Program** - A computer program will be coded which tracks invoicing, purchasing, payroll, and inventory for your future startup company. The program inputs and outputs are described in detail in the instructional guide. A sample of the expected output is also provided. This program description is available on Canvas and can be started immediately.

## Tentative Schedule & Assignment Dates

Day	Date	Lecture/Discussion	Assignments Due as Noted
1	August 25	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch video 1.</li> <li>Turn in 10 bullet points from video 1. Due prior to Day 2.</li> <li>Homework 1 handed out. Due prior to Day 2.</li> <li>Final Computer Program assignment posted. Due prior to Day 8.</li> </ul>
2	September 1	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch videos 2 and 3.</li> <li>Turn in 10 bullet points from videos 2 and 3. Due prior to Day 3.</li> <li>Homework 2 handed out. Due prior to Day 4.</li> </ul>
3	September 8	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch video 4.</li> <li>Turn in 10 bullet points from video 4. Due prior to Day 4.</li> <li>Homework 3 handed out. Due prior to Day 5.</li> </ul>
4	September 15	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch videos 5 and 6.</li> <li>Turn in 10 bullet points from video 5. Due prior to Day 5.</li> <li>Work steadily on computer program.</li> </ul>
5	September 22	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch videos 7 and 8.</li> <li>Turn in 10 bullet points from video 7. Due prior to Day 6.</li> <li>Work steadily on computer program.</li> </ul>
6	September 29	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch videos 9 and 10.</li> <li>Turn in 10 bullet points from videos 9 and 10. Due prior to Day 7.</li> <li>Quiz handed out. Due prior to Day 7.</li> <li>Work steadily on computer program.</li> </ul>
7	October 6	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li>Watch videos 11, 12, and 13.</li> <li>Turn in 10 bullet points from videos 11, 12, and 13. Due prior to Day 8.</li> <li>Work steadily on computer program.</li> </ul>
8	October 13	<ul style="list-style-type: none"> <li>Zoom office hours 6–6:50pm</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

## COVID

Following University policy, all students are required to engage in appropriate behavior to protect the health and safety of the community. Students are also required to follow the campus COVID-19 protocols.

Students who feel ill must not come to class. In addition, students who test positive for COVID 19 or have had an exposure that requires testing and/or quarantine must not attend class. The University will provide information to the instructor, in a manner that complies with privacy laws, about students in these latter categories. These students are judged to have excused absences for the class period and should contact the instructor via email about making up the work.

Students who fail to abide by these rules will first be asked to comply; if they refuse, they will be required to leave the classroom immediately. If a student is asked to leave the classroom, the non-compliant student will be judged to have an unexcused absence and reported to the Office for Student Conflict Resolution for disciplinary action. Accumulation of non-compliance complaints against a student may result in dismissal from the University.

## Emergency Response Recommendations

Emergency response recommendations can be found at the following website:

<http://police.illinois.edu/emergency-preparedness/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class.

<http://police.illinois.edu/emergency-preparedness/building-emergency-action-plans/>.

## Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX Office. In turn, an individual with the Title IX Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: [wecare.illinois.edu/resources/students/#confidential](http://wecare.illinois.edu/resources/students/#confidential). Other information about resources and reporting is available here: [wecare.illinois.edu](http://wecare.illinois.edu).

## Academic Integrity

You are expected uphold the highest ethical standards, to be honest, and to practice academic integrity. **This includes doing original work and citing sources**, including the work of other students. Please give special care to prepare high-quality submissions with proper grammar and spelling.

The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>. Academic dishonesty may result in a failing grade.

Every student is expected to review and abide by the Academic Integrity Policy:

<https://studentcode.illinois.edu/article1/part4/1-401/>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

## Religious Observances

Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. You should examine this syllabus at the beginning of the semester for potential conflicts between course deadlines and any of your religious observances. If a conflict exists, you should notify your instructor of the conflict and follow the procedure at <https://odos.illinois.edu/community-of-care/resources/students/religious-observances/> to request appropriate accommodations. This should be done in the first two weeks of classes.

## Disability-Related Accommodations

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, email [disability@illinois.edu](mailto:disability@illinois.edu) or go to <https://www.disability.illinois.edu>. If you are concerned you have a disability-related condition that is impacting your academic progress, there are academic screening appointments available that can help diagnosis a previously undiagnosed disability. You may access these by visiting the DRES website and selecting "Request an Academic Screening" at the bottom of the page.

## Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See <https://registrar.illinois.edu/academic-records/ferpa/> for more information on FERPA.

## Anti-Racism and Inclusivity Statement

The Grainger College of Engineering is committed to the creation of an anti-racist, inclusive community that welcomes diversity along a number of dimensions, including, but not limited to, race, ethnicity and national origins, gender and gender identity, sexuality, disability status, class, age, or religious beliefs.

The College recognizes that we are learning together in the midst of the Black Lives Matter movement, that Black, Hispanic, and Indigenous voices and contributions have largely either been excluded from, or not recognized in, science and engineering, and that both overt racism and micro-aggressions threaten the well-being of our students and our university community.

The effectiveness of this course is dependent upon each of us to create a safe and encouraging learning environment that allows for the open exchange of ideas while also ensuring equitable opportunities and respect for all of us. Everyone is expected to help establish and maintain an environment where students, staff, and faculty can contribute without fear of personal ridicule, or intolerant or offensive language. If you witness or experience racism, discrimination, micro-aggressions, or other offensive behavior, you are encouraged to bring this to the attention of the course director if you feel comfortable. You can also report these behaviors to the Bias Assessment and Response Team (BART) (<https://bart.illinois.edu/>). Based on your report, BART members will follow up and reach out to students to make sure they have the support they need to be healthy and safe. If the reported behavior also violates university policy, staff in the Office for Student Conflict Resolution may respond as well and will take appropriate action.