



# Sample Course Syllabus

## Accounting and Finance for Scientists

PSM 565

### Syllabus

#### Course Description and Learning Outcomes

Many scientists have traditionally demonstrated little understanding and appreciation of business. Such attitude negatively impacted their ability to commercialize viable scientific discoveries and inventions.

Nowadays this paradigm shifts more and more toward scientists as leaders taking charge and running startups as well as large corporations. To get better prepared for such potential roles, scientists need to learn the financial side of business. In particular, future business leaders have to gain first-hand understanding of the main concepts in Accounting and Finance.

Students taking this course will be able to:

- Describe basic accounting and finance terms and definitions
- Understand and interpret main principles of these disciplines
- Apply their knowledge to justify the financial basis of business projects
- Analyze financial statements and identify critical performance factors in the corporate and entrepreneurial environment
- Develop financial strategies and utilize managerial accounting methods to support project capital appropriations and business plans
- Evaluate, choose and recommend viable financial planning methods applicable to public and private companies.

#### Approach

This course is taught in a hybrid mode: partially in-class and partially online. The course will be divided into three essential components: understanding principles, gaining new skills and applying these skills during business simulation. Online learning and discussions will go in parallel with work on individual and team assignments.

The in-class portion of the course includes three face-to-face sessions during Week 1. This will help to jumpstart the learning process and team building. Students with different disciplinary backgrounds and business experience will be assigned to 3-4 person teams to encourage cross-disciplinary communication and enhance learning opportunities. Students with different disciplinary background and business experience will be assigned to 3-4 person teams to encourage cross-disciplinary communication and enhance learning opportunities. Each team will participate in an extensive business simulation of

Enterprise Management to explore and apply key Accounting and Finance concepts. Their respective companies will compete with each other in the global marketplace.

**Prerequisites:**

To complete individual assignments and team projects, students need to be familiar with MS Office applications as well as Blackboard collaboration tools.

**Required reading:**

- David H. Marshall, Wayne W. McManus, Daniel F. Viele. Accounting: What the Numbers Mean, 8<sup>th</sup> Edition. 2007. McGraw-Hill/Irwin. ISBN 9780073379418
- R. Charles Moyer, James R. McGuigan, William J. Kretlow. Contemporary Financial Management. 11th Edition. 2009. ISBN 9780324653502.
- J. Chris Leach, Ronald W. Melicher. Entrepreneurial Finance, 3<sup>rd</sup> Edition. South-Western. 2009. ISBN 0324561253 (for this book only Chapter 1 will be required. I'll post it on the Bb).
- LINKS Business Simulation materials found in the Course Information folder and on the Web ([www.links-simulations.com](http://www.links-simulations.com)).

*Important Note: LINKS manuals and instructions are available free of charge from the listed Web site. However, to participate in the business simulation each team member has to be registered on the LINKS (no exceptions). Registration rate is \$30 for six rounds of simulation per student.*

More reading assignments will be given as the term progresses.

**Timeline:**

Week 1	Accounting – Present and Past. Bookkeeping Process and Transaction Analysis. Role and Objective of Finance Management. Introduction to LINKS
Week 2	Financial Statements and Accounting Concepts. Plant, Equipment and Intangible Assets
Week 3	Fundamental Interpretations Made from Financial Statement Data. Income Statement and the Statement of Cash Flows (including Time Value of Money)
Week 4	Managerial Accounting. Cost Accounting
Week 5	Cost Analysis for Planning. Cost Analysis for Decision Making
Week 6	Evaluation of Financial Performance. Time Value of Money Revisited
Week 7	Analysis of Risk and Return. Capital Budgeting and Cash Flow Analysis.
Week 8	Lease and Intermediate-Term Financing
Week 9	Overview of Entrepreneurial Finance
Week 10	Wrap-up of LINKS Simulation. Final Game Analysis

**Grading:**

Students are graded A/F based on participation, discussion responses, case studies, assignments and team projects.

## Grading Scale

Superior	4.00	A	936 -1000 points
	3.70	A-	896-935 points
Above average	3.30	B+	866-895 points
Average	3.00	B	826-865 points
Below average	2.70	B-	796-825 points
	2.30	C+	766-795 points
Passing	2.00	C	726-765 points
Unsatisfactory	1.00	D	725-700 points
Failure	0.00	F	700 and below
Incomplete	0.00	I	
Formal withdrawal	0.00	W	

### **FOR GRADUATE STUDENTS THE LOWEST PASSING GRADE IN A COURSE IS “C.”**

**A** = Work of an outstanding nature that exceeds assignment description standards and depicts an intuitive understanding of the subject matter. “A” level assignments do more than repeat material presented in class or in the text; outside sources, web sites, personal experiences and depth are added to the assignment answer. The ability to apply critical thinking skills: analysis, strategy and application are demonstrated.

**B** = Work that is distinctly above average in quality and thoroughness and depicts a mastery of the subject matter. Learner demonstrates an ability to do more than repeat the text (demonstrates critical thinking skills), but with less accomplishment than A work. Work exceeds basic assignment criteria with no missing elements.

**C** = Work of satisfactory nature in quality and thoroughness and depicts a basic understanding of the subject matter. Meets basic assignment requirements but may not be well developed in one or more areas, contains typos and grammatical errors, does not demonstrate critical thinking.

**I** = Incomplete grades are given only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible (in other words, usually everything but the final paper). If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away.

## Grading by Assignment

Student performance will be assessed using the following criteria (described in more detail below):

1. Weekly Discussion Questions (20 points x 9 weeks = 160 points)
2. Weekly Aha! (10 points x 11 weeks = 110 points)
3. Participation (20 points x 9 weeks = 180 points)
4. Quizzes (20 points x 8 weeks = 80 points)
5. Case Studies (40 points x 3 cases = 160 points)
6. LINKS game results (80 points)

7. LINKS mid-stream memo (80 points)
8. LINKS final memo (130 points)
9. LINKS peer evaluation (40 points)
10. Extra credits (50 points)

Total points available = 1000 (extra credits count towards the total, but the sum cannot exceed the limit of 1000 points).

## **Assignments and Weekly Participation:**

### **Weekly Reading**

Each week, chapters from the text will be assigned as required reading. The Week X>Lectures folders also contain additional PowerPoint slides, which summarize reading materials for that week.

### **WEEKLY SCHEDULE AND LATE POLICY**

Progression of the week is Monday – Sunday (Day 1 – Day 7, respectively).

Assignments are due before midnight PST on the day of the week listed in the Assignment Summary section of this syllabus and Course Calendar. Early submission is highly encouraged.

If an assignment is submitted late for any reason, it **will not be graded**. Unless prior arrangements have been made, the practice of tardiness appears disrespectful to the rest of the class and your instructor.

### **Discussion Questions (DQ)**

There will be discussion questions in Weeks 2 to 9. You need to answer **at least two weekly questions** to qualify for full credit. Post your answers in the forum titled "Discussion Questions" (DQ) on the course web site. Each answer should be **at least one half of a page single spaced (about 300 words)**; please review the Discussion Question Grading Rubric table. The DQ's should cite course materials, Web pages or other sources used, e.g., (Smith 2009, p. xx). Please include the page number of cited material so that the section of text can be found by others. Try to illustrate your answer with examples, include personal experiences and opinions to demonstrate critical thinking and application. **The DQs are due on Day 2 (Tuesday) by midnight PST**. Post them separately in individual threads for each question and include your last name in the subject line (e.g., Q. 6 p.134 – Smith). After posting your answers, begin making replies to other students' posts. The grading range is 0 - 20 points per week for original submissions.

## Discussion Question Grading Rubric

	<b>Missing (0%)</b>	<b>Needs Development (40%)</b>	<b>Good (75%)</b>	<b>Excellent (100%)</b>
Idea Development	Some postings supporting other students, no new or original ideas	Some new thoughts or approaches, but little substance or supportive evidence	Well developed ideas. Introduced new ideas, approaches, perspectives, but lacks supportive evidence	Well developed ideas. Introduced new ideas or perspectives. Supported ideas with new examples
Critical Thinking	Analysis of key issues, problems and questions is absent	Attempts to analyze key issues, problems and questions. Analysis uses facts or theory incorrectly	Addresses key issues, problems and questions. Generally accurate, but may rely too much on listing facts and not clearly apply to discussion question	Clearly addresses key issues, problems and questions. May include unique insights leading to better solutions
Context	More than 5 errors in grammar, punctuation or spelling	3-4 errors in grammar, punctuation or spelling	1-2 errors in grammar, punctuation or spelling	Free of errors in grammar, punctuation or spelling

### Case Studies and Memos

During Weeks 2 to 9 you will work on case studies and memos as assigned. Your analysis should be submitted **as a Word file attachment** through the link in a respective week folder (please avoid use of PDF files). Case analysis or memo should be **approximately 2 pages long, single-spaced (not less than 1 page, not more than 3)**; please review the Case Study Grading Rubric below. When using information from the case study or other sources to support your analysis, be sure to cite them, e.g., (case, p. xx). Case studies and memos are due on Day 7 during weeks 2 to 9. The grading range in points is listed in the Grading by Assignment section above.

## Case Study Grading Rubric

	<b>Missing (0%)</b>	<b>Needs Development (40%)</b>	<b>Good (75%)</b>	<b>Excellent (100%)</b>
Idea Development	None.	Some new insights, but not supported with examples or references	Well developed ideas. Introduced new ideas/perspectives	Well developed ideas. Introduced new ideas/perspectives. Supported idea with new examples or references
Critical Thinking	Does not attempt to analyze key issues, problems and questions	Attempts to analyze key issues, problems and questions. Analysis uses facts or theory incorrectly	Addresses key issues, problems and questions. Generally accurate, but may rely too much on listing facts and not clearly apply to discussion question	Clearly addresses key issues, problems and questions. May include unique insight
Context	More than 5 errors in grammar, punctuation or spelling. Poor formatting.	3-4 errors in grammar, formatting, punctuation or spelling. Sloppy formatting.	1-2 errors in grammar, punctuation or spelling. Appropriate formatting.	Free of errors in grammar, formatting, punctuation or spelling. Appropriate formatting.

### Weekly Aha!

The weekly Aha! should establish a link between the course concepts learned during that week and your work or personal experience - something that makes you exclaim "Aha!" This is a very interesting and useful exercise allowing you to match a big picture provided by one of the course topics and your own experience. It is not enough to identify a list of chapter topics. You should be able to demonstrate that you have thought through a topic or two learned during a particular week and related them to your experience. Aha! should be **at least a half single-spaced page (300 words)**, but not more than 1 page, in length. They should be posted **no sooner than Day 5 and no later than midnight Day 6 PST during weeks 1-10, and on Day 3 during Finals Week**. The grading range is 0 - 10 points per week.

### Participation:

To receive full points I recommend that you participate in the class forums on 5 out of every 7 days within the course week. You may comment on your classmates' discussion questions and in the Aha! forum.

At least 8 **substantive** comments are needed each week to receive full points. No more than three comments per day will be counted, and comments must occur on at least 4 different days out of 7. The only exception is the last week, for which 4 comments are required over at least 3 days.

Substantive comments not only express your opinion regarding discussion topic, but also illustrate it with some examples, logical reasoning and additional book or Web research. Simple agreement with the previous posts bears no substance and will not be counted unless you enhance and expand the discussion point and add you personal angle to it.

Assignments themselves do not count as participation, but comments about them do. I use the forum date stamp on the comment to give participation credit, so, if you travel, allow for your time zone location. Feel free to introduce a new topic by starting a new thread in the forum. The grading range is 0 – 20 points per week and contributes a significant portion of the overall grade.

**LINKS Business Simulation:**

During the term students will participate in a hands-on team project pertaining to a sophisticated simulation of business management in a competitive environment. The simulation reflects real features of doing business in a global environment and will help students learn major topics related to Financial and Managerial Accounting, Product and Service Costing, and Income Statement and Balance Sheets.

An original simulation called LINKS Enterprise Management was highly customized for the purposes of this course. Instructor-appointed project teams will run companies developing, manufacturing, marketing and selling high tech products in the US, Europe and Asia.

Custom simulation will be driven by so diverse processes as demand deviations, competition moves, global market changes and product recycling using biotech methods. Competing companies will be active in B2B and B2C markets, managing and hiring new staff members, researching competition and taking steps to improve firm’s performance.

The game results will be evaluated based on the overall team performance as well as contribution of individual members. Primary performance of each firm will be measured by its **revenues, stock price and long-term profitability** as main performance parameters.

During six rounds of the simulation project teams will conduct market research, develop, redesign and introduce new products to their respective markets, using theoretical knowledge acquired in this class. The final task of this team project will be development of the forward-looking Management and Marketing Plan leading to sustainable growth of their respective companies.

A folder with core LINKS materials pertaining to this course is available in the Course Information folder. Additional materials, information about new opportunities and changes will be published during the term in accordance with the game plan.

**Recommended weekly workflow**

To avoid overload, I recommend that you work on various class assignments using the following weekly schedule:

<b>DQs</b>	DQ1	DQ2				Relax	Relax
<b>Comments</b>	1 or 2	1 or 2	1 or 2	1 or 2	1 or 2	Relax	Relax
<b>Aha!</b>					X	Relax	Relax
<b>CS (if any)</b>			X			Relax	Relax
<b>Quiz (if any)</b>		X				Relax	Relax
<b>LINKS</b>				X		Relax	Relax

A detailed class schedule is posted in the Course Calendar located in the Course Information Folder.

### **Expectations for Student Conduct:**

In an academic community, students and faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty and staff have the responsibility to treat each other with understanding, dignity and respect. Disruption of teaching, administration, research and other institutional activities is prohibited by Oregon Administrative Rule 576-015-0015 (1) and (2) and is subject to sanctions under university policies, OSU Office of Student Conduct.

### **Academic Integrity:**

Students are expected to comply with all regulations pertaining to academic honesty, defined as: An intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. For further information, visit Avoiding Academic Dishonesty, or contact the office of Student Conduct and Mediation at 541-737-3656.

### **Conduct in this online classroom:**

- Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility. Students will be expected to treat all others with the same respect as they would want afforded themselves.
- Disrespectful behavior to others (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors in the course (such as persistent and unreasonable demands for time and attention both in and out of the classroom) is unacceptable and can result in sanctions as defined by Oregon Administrative Rules Division 015 Student Conduct Regulations.

### **Communications:**

- *Online threaded discussions* are public messages, and all writings in this area will be viewable by the entire class or assigned group members. If you prefer that only the instructor sees your communication, send it to me by email, and be sure to identify yourself and the class.
- Posting of personal contact information is discouraged (e.g. telephone numbers, address, personal website address).
- *Online Instructor Response Policy*: I will check email frequently and will respond to course-related questions within 24 hours.
- *Observation of "Netiquette"*: All your online communications need to be composed with fairness, honesty and tact. Spelling and grammar are very important in an online course. What you put into an online course reflects on your level of professionalism. Here are a couple of references that discuss
  - writing online: <http://goto.intwg.com/>
  - netiquette: <http://www.albion.com/netiquette/corerules.html>.
- Please check the Announcements area and the course syllabus before you ask general course "housekeeping" questions (i.e. how do I submit assignment 3?). If you don't see your answer there, then please contact me.



### **Guidelines for a productive and effective online classroom:**

- The discussion board is your space to interact with your colleagues related to current topics or responses to your colleague's statements. It is expected that each student will participate in a mature and respectful fashion.
- Participate actively in the discussions, having completed the readings and thought about the issues.
- Pay close attention to what your classmates write in their online comments. Ask clarifying questions, when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.
- Think through and reread your comments before you post them.
- Assume the best of others in the class and expect the best from them.
- Value the diversity of the class. Recognize and value the experiences, abilities and knowledge each person brings to class.
- Disagree with ideas, but do not make personal attacks. Do not demean or embarrass others. Do not make sexist, racist, homophobic or victim-blaming comments at all.
- Be open to be challenged or confronted on your ideas or prejudices.

### **STUDENTS WITH DISABILITIES**

Accommodations are collaborative efforts between students, faculty and [Disability and Access Services \(DAS\)](#). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

### **COURSE EVALUATION**

We encourage you to engage in the course evaluation process each term – online, of course. The evaluation form will be available toward the end of each term, and you will be sent instructions by Ecampus. You will login to “Student Online Services” to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted.