

Department of Science, Technology, and Society
School of Engineering and Applied Science
University of Virginia

ENGR 1559
Business Fundamentals for Engineers
Spring 2012

Teaching Team:

Ed Freeman, University Professor and Elis and Signe Olsson Professor of Business Administration,
Darden School, FREEMANE@Darden.virginia.edu
Ishrat Ali, Ph.D. Candidate, Darden School, AliM09@darden.virginia.edu
Bret Crane, Ph.D. Candidate, Darden School, CraneB09@darden.virginia.edu
Megan Hess, Ph.D. Candidate, Darden School, HessM09@darden.virginia.edu
Lauren Purnell, Ph.D. Candidate, Darden School, PurnellL09@darden.virginia.edu

W. Bernard Carlson, Professor of STS, Course Coordinator, wc4p@virginia.edu

Class: Tuesdays and Thursdays, 9:30am – 10:45am, Room: Olsson 005
Office Hours: By appointment.

Purpose of the Course

Designed for engineering students, this course explores key management and business concepts relevant to technology-dependent enterprises. The purpose of this course is to enable you to reason about the role of business in a complex, dynamic, global environment. Specific course objectives include:

- To understand the principles of value creation.
- To be able to apply several frameworks for analyzing and discussing business issues.
- To develop a general management perspective that includes the ability to formulate, analyze, and defend business decisions in ethical terms.

Business is an ongoing conversation about both value creation and human interrelationships, so we will be covering a wide range of topics from management, finance, accounting, and organizational behavior.

This course is open to all SEAS students; you do not need to be enrolled in the engineering business minor. It will count as an elective in the Engineering Business minor. It cannot be taken as a substitute for COMM 2010. We anticipate that this course will count as an unrestricted elective in most SEAS majors and that it does not satisfy any of the STS course requirements.

Texts and Videos

We will be using a Darden Case Pack that must be purchased from the University Bookstore. These cases will not be available on Collab.

In addition to the case pack, we will be using one required book and one recommended text. You may wish to purchase them on the Web from Amazon.com or another site. Unless requested by students in the class we will **not** be ordering these through the UVa Bookstore:

Required: Jacqueline Novogratz, *The Blue Sweater: Bridging the Gap between Rich and Poor in an Interconnected World* (Rodale, 2009).

Recommended: Libby, Libby, & Short, *Financial Accounting*, 6 ed. (New York: McGraw-Hill Irwin, 2008). NOTE: You do not need to buy the new seventh edition that costs \$179. You can purchase used copies beginning at \$2.65 plus shipping via Amazon.com. We will also post the chapters that you will need to read on Collab.

Several chapters and videos will be made available via the course's Collab website. These include:

Lanen, Anderson, & Maher, *Fundamentals of Cost Accounting* (New York: McGraw-Hill Irwin, 2011). Note: 2008 edition is also acceptable. Chapters 1, 3, and 16.

Ryan Quinn and Robert Quinn, *Lift* (San Francisco: Berrett-Koehler, 2009), chapters 7 and 8.

Edgar Schein, *Leadership and Organizational Culture* (San Francisco: Jossey-Bass, 2010), chapters 1 and 2.

As you can see from the attached schedule grid, you will also be required to view several videos and movies. For these films, you will need to attend an evening screening, and we will let you know in class the date, time, and location of these events.

Occasionally, we will forward an article to you by email from the *New York Times* or another source, so *be sure to read any item that is sent to you via the Collab email system*.

Class Participation

Following the teaching practices at Darden, we will be using business cases in most sessions and we will rely heavily on your contributions to the learning environment of the classroom. Hence, **class contributions** will count for **50%** of your grade. The teaching team will review your contributions after every class. We emphasize classroom contribution because we believe that leading in learning results from connecting to the people around you in ways that encourage and challenge them to see the world differently. Each class period becomes a mini-lab in which you can practice applying ideas, skills, concepts, and perspectives that we introduce during the course.

In this environment, “winging it”—speaking without adequate thought or preparation—won’t get you very far. We evaluate not only how often you speak, but more importantly, we evaluate the *quality* of what you say. Whenever you speak in class, your comments can have a positive or a negative influence on those around you, including the faculty. As such, speaking can help your grade or hurt it.

With this in mind, we suggest that you not get too wrapped up in whether you are saying the right thing at the right time. Instead, try the following strategy: work on being genuinely involved in every class and trying to contribute to others’ learning and well as to your own. This is usually a winning strategy. Feedback on your class contribution from the teaching team will be provided approximately midway through the semester.

To facilitate class participation, we ask that **you sit in the same seat** for each class meeting and display your name tent. We will establish the seating order at the second class meeting.

Examinations

There will be a **midterm and take-home final** that will count for **50%** of your grade. Written exams provide a motivation to review/synthesize the material learned in class and from the readings. They also provide important feedback (to you and the teaching team) about what is being learned. No make-up exams will be given.

Ground Rules

All exams and work submitted for a grade must be pledged according to the Honor Code Guidelines for STS Courses. If you are not familiar with these guidelines, we will be happy to provide a copy.

Exams that are not pledged will not be graded and will be returned to the student for pledging.

With regard to **reading assignments**, we assume that you will read the cases and articles listed for a particular class **prior** to that class. If we feel that students are not doing the reading assignments, we may elect to give **unannounced** reading quizzes.

While we anticipate that all students will pass this course, previous unpleasant experiences require that we explain in advance the ways in which it is possible to **fail** this course. First, you can fail if you do not participate in class discussions at all. Second, if you do not turn in all of the assignments and/or the quality of your work is below what we deem to be the acceptable minimum. Third, we have the option to fail you if you do not submit any or all of the assignments on the due dates. And finally, you can fail if you have an excessive number of absences, excused or unexcused.

Should you have a learning disability that requires accommodation, we would be grateful if you would advise Mr. Carlson privately of your situation within the first few weeks of the semester. We cannot necessarily provide accommodation once an assignment or exam is underway.

Technology in Class. Full immersion in the class experience requires that you do not have your head buried in a laptop. As for note taking, you will learn the material better if you take notes on paper during the class and transcribe them later. We also ask that cell phones and similar devices not be used in class. However, for some classes, having laptops will be beneficial for presenting your preparatory case work. We will tell you in advance where we expect presentations from you.

Class Attendance. Because class participation is crucial to this course, we expect that students will attend every class session. In the event that you are sick or have an emergency, you must **email the session leader for that day prior to class** and advise him or her of your situation. If you find that you will miss a number of classes due to illness or emergency, you should follow SEAS policy and contact the Undergraduate Dean's Office. This office will then officially notify all of your instructors of your situation.

Please make every effort to arrive at class on time. We begin promptly at **9.30 AM**.

On the rare occasion that the session leader for the day is delayed in coming to class, we ask that you wait for **20 minutes** before leaving the classroom.

Preliminary Schedule

S	Date	Lead	Topic	Book	Case	Other Materials
1	19-Jan	Freeman	Case method and major themes of this course		Davis Press & Meccan Madness (UVA-E-0073)	
2	24-Jan	Freeman	Creative capitalism: how do we imagine business and society working together?		Merck & Co., Inc.: Addressing Third-World Needs (A) HBS Case 991021-PDF-ENG	Merck video (Darden #4109)
3	26-Jan	Crane	Introduction to Organizational Behavior	Hidden Traps to Decision Making (HBS R0601K-PDF-ENG)	Mount Everest - 1996 (HBS 303061-PDF-ENG)	
4	31-Jan	Crane	Managing Conflict	Managing Conflict in Organizations (UVA-OB-0743)	Alvarez at Canalven: A Visual Case (UVA-OB-0864)	
5	2-Feb	Crane	Organizational Culture and Design	Organizational Culture and Leadership. (Schein) Chapters 1 & 2.	GE Fanuc North America (A) (UVA-OB-0437)	
6	7-Feb	Crane	Communication		Saying What Needs to Be Said (UVA-OB-0756) <i>Distributed in Class</i>	12 Angry Men - Movie
7	9-Feb	Crane	Operations Strategy	http://ezinearticles.com/?Southwest-Airlines-Operations---A-Strategic-Perspective&id=111277	South West Airlines (UVA-OM-1150)	
8	14-Feb	Crane	Supply Chain Management	Introduction to Supply Chain Management (UVA-OM-1370)	AES Corporation: Global Sourcing Initiative (UVA-OM-1167)	Segment from Power Trip
9	16-Feb	Hess	The Language of Finance	Selections from Chapter 1 - Libby text (see Collab)		• See Excel Financial Statement Templates on

						Collab • Problem Set (see Collab)
10	21-Feb	Hess	Accounting Transactions & The Operating Cycle	Selections from Chapter 2 & 3 - Libby text (see Collab)		• Problem Set (see Collab)
11	23-Feb	Hess	Reading a Financial Statement	Selections from Chapter 14 - Libby text (see Collab)	Ratios Tell a Story - 2009 (UVA-C-2316)	• Ratio Descriptions (see Collab)
12	28-Feb	Hess	Managerial Accounting	Selections from Chapters 1, 3, and 16 - Lanen text (see Collab)	EntertainmentNow.com (UVA-C-2184)	• Budgeting Templates (see Collab)
13	1-Mar	Hess	Investments/Project Financing	Selections from Appendix 1 - Lanen text (see Collab)	WorldWide Paper Company (UVA-F-1372)	
			SPRING BREAK (3-11 Mar)			
14	13-Mar	Hess	Accounting and Ethics			Movie "Enron: The Smartest Guys in the Room"
15	15-Mar	Crane/Hess	MIDTERM EXAMS			
16	20-Mar	Ali	Introduction to Marketing. Understanding brand perceptions.		Kalashnikov - Whats in a name Darden Case UVA-M-0697	
17	22-Mar	Ali	Product profitability.		Heinz Ketchup: Pricing the Product Line Darden Case UVA-M-0777	
18	27-Mar	Ali	Customer profitability.		Retail Relay Darden Case UVA-M-0784	
19	29-Mar	Ali	Introduction to Strategy. Understanding Industry dynamics.		Boston Beer Co Inc HBS Case 196138-PDF-ENG	The Strategy Toolkit (Case-pack)

20	3-Apr	Ali	Organizations Internal Capabilities.		Apple (Computer) Inc: Whither the Mac? Darden Case UVA-S-0202	
21	5-Apr	Ali	Competitive Positioning.		Piaggio (A) Darden Case UVA-BP-0415	
22	10-Apr	Purnell	Corporations as global Actors		Google in China ; HBS ; 510071-PDF-ENG	Real Change Requires Politics (see collab)
23	12-Apr	Purnell	Business and government		Royal Dutch Shell; HBS: 399126-PDF-ENG	
24	17-Apr	Purnell	Business and culture		GE Healthcare; Darden; UV1038-PDF-ENG	Lumpy flat world (see collab)
25	19-Apr	Purnell	Business at the bottom of the pyramid		Danimal; Ivey; 910M99-PDF-ENG	Fortune at the Bottom of the Pyramid (see collab)
26	24-Apr	Purnell	Business as part of a better world	Movie "I am"	in-class viewing	
27	26-Apr	Purnell	Business as part of a better world (II)	Blue Sweater	Book to be purchased by student	Husk Power Systems (see collab)
28	1-May	Freeman	Course Review	Final Exam Distribution		
29	8-May	Ali/Purnell	FINAL EXAMS DUE			

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