Software Business Management

Mondays 6:15pm – 9:00pm | Location: Fitzgerald Schiciano A 1464

Instructor	Contact Information & Office Hours
John Allessio Duke University - Adjunct Associate Professor Master of Engineering Management Program https://www.linkedin.com/in/johnallessio/ john.allessio@duke.edu	E-mail: john.allessio@duke.edu Phone: 919-495-8954 Office Hours: Mon 9:00pm - 10:00 pm or as requested

Course Overview

In today's world, software is pervasive in most, if not all companies. Regardless of the industry, virtually all companies are now a software company, and pretending that there's not, spells serious peril. With hardware and software growing more capable at exponential rates, data of all sorts are increasingly getting into the hands of ordinary people—competitors, employees and, especially, customers. Extraordinarily sophisticated tools of measurement, analysis and communication allow these empowered people to evaluate, process, and distribute the data, along with their opinions about it.

Software business management is a commercial activity aimed at producing, buying, and selling software products or services. Well-run software companies are known for their high profit margins.

This course will focus on understanding the key success factors for software organizations to drive their portfolio strategy by mapping out monetization models, pricing, vendor management, professional services, customer support, customer success, sales, pre-sales, development & continuous delivery, road mapping & maintenance.

Class Structure
Each class module lasts 2 hours and 45 minutes with a 15 min break. The class module includes a lecture, in class exercises, simulations or group discussions depending on the content of each module.

Class Participation and Attendance

Participation will be based on both frequency and quality. Frequency is important so that the class can benefit from your own unique experience. Quality is important for comments that are directly relevant and will help advance the knowledge on a topic. It is critical that you make your thinking clear to the

class. With clarity the class can productively debate your logic and reasoning. Finally, spontaneity in a discussion is important. Students should come to class well prepared with all the readings as well as be prepared to change your thinking based on how the class proceeds.

Class attendance is MANDATORY.   Distance learning students need to notify the professor that they reviewed the lectures no later than 2 days after class.   If you miss more than 2 classes, your class participation attendance grade will be dropped by one grade. If you miss more than 4 classes, your attendance grade will be a C or lower.

Assignments (Class exercises, simulations, or case studies)

- Assignments are tasks that must be done to make sure there is clear understanding of a concept just discussed in class.
- Assignments are given at some point during a class and are expected to be completed either individually or in teams.
- All assignments are expected to be submitted via Canvas and presented during class.
- An assignment can be a classroom exercise, a simulation, or a case study.

Pre-class readings

Reading assignments are to be read by each student individually. They complement what will be taught in the lectures. Reading helps to increase class participation grade in the event a question is asked from the material read.

Links to pre-reading material are provided for a given topic in the class schedule table.

Harvard Business School (HBS) case studies or articles can be downloaded from the following course pack link at: TBD

Grading
10%   Attendance and participation
20%   Midterm Exam
25%   Final Exam
30%   Assignments – case studies, simulations, class exercises
15%   Team Project

Grading Scale

A+	97-100		C+	77-79
A	93-96.99		C	73-76
A-	90-92.99		C-	70-72
B+	87-89.99		D	60-69

B	83-86		F	<60
B-	80-82			

Class Schedule

Date	Topic	Pre-Class Reading/Assignment
01/09/25	Software business management overview - how the software industry redefines product management Homework Assignment 1: Each student to create a Software Business Canvas – Due in Canvas by Monday, January 13, 2025 at 11:59PM.	https://www.computer.org/publications/tech-news/trends/50-years-of-software https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-innovative-companies-leverage-tech-to-outperform McKinsey and Company: "Every company is a software company: Six must-dos to succeed." McKinsey and Company: "Four myths about building a software business". The Top 100 Software Companies of 2023 – The Software Report

01/16/25	• Review up to 3 Software Business Canvas – Class 1 Homework Assignment
	
	• Group Exercise
	
	• Managing Software Business Framework
	• Software Types – Functional Categories
	• Software Types – Shareability
	  o Open Source
	  o Closed Source
	• Software Business COT vs. COT+Services
	• B2B vs. B2C
	• Homework Assignment 2: Using the company you researched in Homework#1, document the top 3 competitors, compare and contrast to your company, provide recommendation. Due in Canvas by Monday, January 20, 2025 at 11:59PM.
		https://www.goodcore.co.uk/blog/types-of-software/
		
		https://www.redhat.com/en/topics/open-source/what-is-open-source
		
		https://www.redhat.com/en/topics/open-source/what-is-open-source-software
		
		https://www.redhat.com/en/resources/state-of-enterprise-open-source-report-2022
		
		"The Value of Red Hat: Benefit from Enterprise Open Software Backed by Expert Guidance"
		
		https://www.youtube.com/watch?v=4qCabv819Iw
		
		https://www.youtube.com/watch?v=ph5EWe9myd0

Date	Topics	Resources

01/23/25	• Review up to 3 Student Presentations from Homework Assignment #2.
	
	• Homework Assignment 3: HBR Case Study: Microsoft Teams versus Zoom: Challenging the Challenger. Due in Canvas by Monday, January 27, 2025 at 11:59PM.
	
	• Software Types – Shareability (complete discussion from 22 Jan)
	   ○ Open Source
	   ○ Closed Source
	• Software Business COT vs. COT+Services
	• B2B vs. B2C
	• Guest Lecture: Joe Anglim, Sr. Director Corporate Strategy, Red Hat
		https://www.youtube.com/watch?v=RVhCXWoNjfM
		
		https://sakai.duke.edu/access/content/group/EGRMGMT-590-03-Sp23/Class%203/improving-the-business-to-business-customer-experience_final.pdf
		
		https://www.gartner.com/smarterwithgartner/what-sales-should-know-about-b2b-buyers-in-2019
		
		https://www.gartner.com/smarterwithgartner/gartner-keynote-the-new-imperative-for-b2b-sales-and-marketing-leaders
		
		McKinsey and Company: "Reimagining software services for the cloud and digital world".
		
		HBR: "How Software is Helping Big Companies Dominate"

01/30/25	• HBS Case Study Discussion: "Microsoft Teams vs. Zoom: Challenging the Challenger"
	
	• Go-To-Market Functions
	   ○ Marketing
	   ○ Sales
	   ○ Sales Engineering
	   ○ Customer Success
	
	• Homework Assignment#4 – Read HBS Case Study, "Commercial Sales Transformation at Microsoft" and answer 5 questions. Due in Canvas by Monday, February 3, 2025 at 11:59PM.
		https://www.clari.com/blog/sales-dashboards/
		
		https://sakai.duke.edu/access/content/group/EGRMGMT-590-03-Sp23/Class%203/Forrester%20VSM%20Example.pdf
		
		HBS Article: Five Ways Marketing and Sales Leaders Can Embrace GenAI
		
		McKinsey and Company: "The future of B2B Sales is Hybrid".
		
		McKinsey and Company: "Unlocking the power of data in sales".
		
		McKinsey&Co: "AI-powered marketing and sales reach new heights with generative AI
		
		https://www.clari.com/blog/the-sales-funnel-what-it-is-how-to-build-one/
		
		https://www.techsalesadvisors.com/blog/what-is-a-sales-engineer
		
		https://hbsp.harvard.edu/import/1117756

		HBS Article: Commercial Sales Transformation at Microsoft
02/06/25	• Go-To-Market Functions (Sales, Sales Engineering, Marketing, and Customer Success Management) • HBS Case Study Discussion: "Commercial Sales Transformation at Microsoft" o • Homework Assignment#5 – Read HBS Case Study, "Salesforce.com vs. Siebel" and answer 5 questions. Due in Canvas by Monday, February 10, 2025 at 11:59PM. • Guest Lecture, Natalie Knowles, Sr. Dir, Marketing, Red Hat	https://hbsp.harvard.edu/import/1117756 HBS Case Study : Commercial Sales Transformation at Microsoft HBS Case Study: Salesforce.com vs. Siebel HBS Article: Toward Healthier B2B Relationships McKinsey and Company: "Are you really listening to what your customers are saying?" McKinsey and Company: "From touchpoints to journeys". HBS Article: What is a Customer Success Manager McKinsey and Company: "The CEO Guide to Customer Experience".
02/13/25	• Continued Go-To-Market Lecture • Monetization Models - Pricing Strategies - SaaS, IaaS, XaaS, PaaS • HBS Case Study Discussion: "Salesforce.com vs. Siebel" • Homework Assignment#6: HBS Case Study: From On-Premise Software to SaaS: Transforming C3 Solutions. Due in Canvas by Monday, February 17, 2025.	https://link-springer-com.proxy.lib.duke.edu/content/pdf/10.1007%2F978-3-030-33742-1.pdf "From Efficiency to Effectiveness by Jan Bosch pp 3-10 McKinsey and Company: "From product-led growth to product-led sales". https://bluetree.ai/2019/04/08/saas-business-models-explained/ Delivering_software_as_a_service.pdf HBS Case Study: From On-Premise Software to SaaS: Transforming C3 solutions HBS: Note: The Cloud Computing Industry McKinsey and Company: "The next software disruption: How vendors must adapt to a new era". McKinsey and Company: "Investing in the future of tech: Lessons from winning companies".

02/20/25	• HBS Case Study Discussion: "From On-Premise Software to SaaS: Transforming C3 Solutions" • The importance and impact of Culture in a Software Company – Guest Speaker: Ellen Thorne, Chief People Office, Tackle.io • Suggestions for Mid-Term Preparation	https://ieeexplore-ieee-org.proxy.lib.duke.edu/xpl/ebooks/bookPdfWithBanner.jsp?fileName=5989501.pdf&bkn=5201507&pdfType=chapter https://agilemanifesto.org/iso/en/manifesto.html https://blog.iconnewmedia.de/en/agile-software-development/ https://www.growin.com/blog/history-of-software-development-methodologies/ https://www.scrum.org/resources/what-is-scrum/ HBS Article: "What having a growth mindset actually means" by Carol Dweck. McKinsey & Company: "Fear Factor: Overcoming human barriers to innovation". https://hbsp.harvard.edu/import/1117756 McKinsey&Company: "An executive's guide to software development" McKinsey & Company: "Moving beyond agile to become a software innovator". Zoom Lecture for Class 7 27 FEB 2023
02/27/25	• 2023 State of Agile • Understanding the Software Development Life Cycle (SDLC) and its impact on business decisions • Mid-Term Exam • Homework Assignment#7: HBS Case Study: Fasten: Challenging Uber and Lyft with a new Business Model. Due in Canvas by Monday, March 3, 2025.	AR-SA-2022-16th-Annual-State-Of-Agile-Report.pdf
03/06/25	• Mid-Term Review • Two-Sided Market Software Business Strategy • HBS Case Study Discussion: Fasten: Challenging Uber and Lyft with a new Business Model Homework Assignment#8: HBS Case Study: Innovation, Co-Creation, and Design Thinking: How Salesforce's Ignite team Accelerates Enterprise Digital	HBS Case Study: Fasten: Challenging Uber and Lyft with a new Business Model HBS Review: Why Some Platforms Thrive…and Others Don't https://www.fatbit.com/fab/two-sided-marketplace/

	<mark>Transformation. Due in Canvas by Monday, March 17, 2025.</mark>	
03/13/25	• Spring Break	
03/20/25	• Digital transformation HBS Case Study Discussion: Innovation, Co-Creation, and Design Thinking: How Salesforce's Ignite team Accelerates Enterprise Digital Transformation	<mark>https://sakai.duke.edu/access/content/group/EGRMGMT-590-03-Sp23/Class%2010%2027%20March%202023/The%20Essential%20Components%20of%20Digital%20Transformation.pdf</mark> HBS Case Study: Innovation, Co-Creation, and Design Thinking: How Salesforce's Ignite team Accelerates Enterprise Digital Transformation McKinsey and Company: "Implementing a digital transformation at industrial companies". https://www.cio.com/article/418756/5-questions-cios-must-ask-after-southwest-airlines-failure.html https://www.weforum.org/agenda/2020/03/we-should-treat-data-as-a-natural-resource-heres-why/#:~:text=Data%20as%20a%20natural%20resource%20Like%20oil%2C%20gas,we%20mitigate%20the%20growth%20of%20so-called%20data%20landfills. https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-innovative-companies-leverage-tech-to-outperform
03/27/25	• Professional Services in a Software Company • Customer Support in a Software Company • <mark>Guest Speakers: Manfred Kunze and Bill Norris</mark> • Assign HBS Cloudstrat Simulation	https://www.zendesk.com/blog/customer-service-trends/ Gartner: 2023 Top Priorities for Customer Services and Support Leaders in Sakai <mark>https://sakai.duke.edu/access/content/group/EGRMGMT-590-03-Sp23/Class%2011%203%20April%202023/customer_service_2023_top_priorities_v2.pdf</mark>

04/03/25	• Role of Business Partners in a Software Business
	  o ISVs
	  o GSIs
	  o RSIs
	  o VARs/VADs
		HBS Case Study: Cloudstrat Simulation, Managing Migration to the Cloud
		https://hbsp.harvard.edu/import/1117756

	○ MSPs • <mark>Key Financial Metrics for a Software Business</mark> • HBS: Cloudstrat Simulation – Team Exercise	https://www.bcg.com/publications/2022/five-strategies-for-a-successful-software-partner-program https://cloudmore.com/content-hub/independent-software-vendor https://www.pcmag.com/encyclopedia/term/systems-integrator https://www.controleng.com/articles/how-to-work-with-a-system-integrator/ https://www.techtarget.com/searchitchannel/definition/VAR#:~:text=A%20value%2Dadded%20reseller%20(VAR)%20is%20a%20company%20that,with%20additional%20offerings%20bundled%20in. https://www.gartner.com/en/information-technology/glossary/msp-management-service-provider#:~:text=A%20managed%20service%20provider%20(MSP,a%20third%2Dparty%20data%20center. McKinsey and Company: "Product managers for the digital world". McKinsey and Company: "SaaS and the Rule of 40: Keys to the critical value creation metric". TSIA: The 10-10-10 Rule for SaaS CFOs".
04/10/25	• Group Project Presentations • Course Summary • Final Exam Preparation	https://link-springer-com.proxy.lib.duke.edu/content/pdf/10.1007%2F978-3-030-33742-1.pdf
04/17/25	Final Exam	

Team Assignments

Students will be assigned to teams and will not get to choose who their team members are. This is to reflect the just "real world" project team experience. We will do our best to make sure that each team is composed of a mix of personal / cultural backgrounds, undergraduate degrees, and experiences as reflective of the marketplace.

Sakai:

- Lectures, case solutions, and others class materials will be posted on Sakai in the "Resources" tab a day before the class takes place.
- Students place their submissions individual or team submissions in the Assignments tab. For team submissions, students submit in their respective team folder.

Student Success

If you are having trouble completing assignments or understanding the materials, please consult with me about appropriate course preparation and readiness strategies as needed. Either send me an email or visit office hours describing the personal or academic difficulties you are facing. I may also direct you to other resources on campus.

- The Academic Resource Center (ARC) offers free services to all students, including peer tutoring, learning consultations, ADHD/LD coaching and help with online learning.
- If you are concerned about your physical or mental health, DukeReach can connect you with departments across campus to get you help, and you can contact Counseling & Psychological Services (CAPS) directly for counseling services. You can also reach 24/7 mental health support through Blue Devils Care.

Academic Accommodations

If you need to request accommodation for a disability, you should contact the Disability Management System (DMS) office. I will work with that office to provide you with equal access to course materials and make accommodations for exams and other assessments.

Academic Integrity

As a student, you should abide by Duke's Community Standard, which states: Duke University is a community dedicated to scholarship, leadership, and service and to the principles of honesty, fairness, respect and accountability. Citizens of this community commit to reflect upon and uphold these principles in all academic and nonacademic endeavors, and to protect and promote a culture of integrity.

To uphold the Duke Community Standard:

- I will not lie, cheat, or steal in my academic endeavors.
- I will conduct myself honorably in all my endeavors; and
- I will act if the Standard is compromised.

It is the responsibility of the student to understand and follow Duke policies regarding academic integrity, including doing one's own work, following proper citations of sources, and adhering to guidance around group work. Please speak with me to get any clarification about this course.