CMSC389P: Mastering the PM Interview

Course Description

Our course is geared towards getting students ready for PM interviews in the technology industry. The class will be a combination of lectures and in-class activities that will provide hands-on practice for PM roles. We will begin with interview questions involving behavioral and technical concepts, and transition to more complex PM-specific topics including product design, analytical, and case questions.

Course Details

- **Course:** CMSC389P
- **Prerequisites:** CMSC216 & CMSC250
- **Credits:** 1
- **Seats:** 30
- **Lecture Time:** Friday, 12:00 - 12:50pm
- **Location:** IRB 2207
- **Semester:** Fall 2020
- **Recommended Resources:** Cracking the PM Interview, Swipe to Unlock, The Product Book, Cracking the Coding Interview
- **Course Facilitator(s):** Srivarshini Parameswaran (she/her/hers), Desiree Abrokwa (she/her/hers)
- **Faculty Advisor:** Dr. Michelle Mazurek
- **Special Thanks for helping with syllabus & course material:** Annie Fang

Tips for Success in an Online Course

1. **Participate.** Discussions and group work are a critical part of the course. You can learn a great deal from discussing ideas and perspectives with your peers and course facilitators. Participation can also help you articulate your thoughts and develop critical thinking skills.
2. **Manage your time.** Make time for your online learning and participation in discussions each week. Give yourself plenty of time to complete assignments including extra time to handle any technology related problems.
3. **Slack.** Check Slack multiple times a day - make sure to turn on notifications since all class announcements and assignments will be posted on there.

Ask for help if needed. If you need help with Slack or other technology, reach out to us! If you are struggling with a course concept, reach out to us, and your classmates, for support.

Topics Covered

- *Behavioral*
    - Tailoring resumes for PM opportunities
    - Ways to structure responses to behavioral questions
        - Situation, Action, Result Model (S.A.R.)
        - Five Key Master Stories
    - Crafting an elevator pitch
- *Technical*
    - User-centered thinking (including concepts from HCI)
    - Debunking buzz words
    - Considering technological limitations/difficulties
        - Data storage costs/speed
        - Complexity of implementation
    - System design and scalability
    - Cost/benefit analysis and feature prioritization
- Product Design
    - Commonly asked interview questions
    - Structuring answers with a user-focused approach
- Analytical/Estimation
    - Estimation questions
    - Analytical questions
    - Understanding product launch and KPIs
- Case Questions
    - SWOT analysis

Schedule

Week 1: Course Introduction - 09/04	
Topic	**Assignment**

• What is a PM? (Difference between product/program/project + T/E/APM)
• Resume review/constructing a PM style resume
• Mini Slack Tutorial
  ○ Notifications for specific channels
• In-Class Activity:
  ○ Kahoot Quiz to go over different types of PMs & Slack concepts
	• **Homework:** Submit a PM style resume
	• **Homework:** Each student introduces themselves on Slack (name, year, major, why they're taking the class, fun fact!)
	• ***Optional Reading:*** Chapter 1 in *The Product Book*

Week 2: Behavioral Prep - 09/11	

• Behavioral Question Prep
  ○ Situation, Action, Result model (S.A.R.)
  ○ Five Key master stories (leadership, teamwork successes, challenges, mistakes/failures)
  ○ Short presentation of elevator pitches
• In-Class Activity:
  ○ Elevator pitches
	• **Homework:** Complete Resume Peer Review (partners will be assigned) and submit updated version of resume
	• **Homework:** Submit five key master stories using S.T.A.R. model (with minimum 200 words per section)

Week 3: Technical Concepts - 09/18	

• Debunking Buzz Words
  ○ Ex. cloud, AI/ML, cryptocurrency, etc.
• How to Explain Technical Concepts
  ○ Different types of audiences
  ○ Data structures/algorithms
• In-Class Activity:
  ○ Technical Concept question practice within each group
	• **Homework:** Behavioral peer mock interview (list of questions will be provided) + reflection

Week 4: Technical Concepts (cont.) - 09/25	

• System Design and Scalability
  ○ Object-oriented design
  ○ How to approach (step-by-step guideline)
• Technical Limitations
  ○ Data storage costs/speed
  ○ Complexity of implementation
• In-Class Activity:
  ○ Partnered mock interview w/ technical concept questions
	• **Homework:** Submit a video (or audio) explaining any technical concept (or pick one from a list) **AND** explain a new buzzword (max. 3 min video)
	• ***Optional Reading:*** Chapter 1, Chapter 4 in *Swipe to Unlock* textbook

Week 5: Product Design - 10/02	

• Step-by-Step Process
  ○ Circles Method
• In-Class Activity:
  ○ Design a product and describe KPIs (mini group presentations)
  ○ Example interview questions in class
  ■ What is your favorite product and why? How would you build the same product for a different demographic?
	• **Homework:** Watch mock interview online (will provide links) and submit write-up including personal approach with clarifying questions for the interviewer

Week 6: Product Design (cont.) - 10/09	

• Step-by-Step Process
• HCI Principles
  ○ Current user pain points from UI/UX POV
• Product Life Cycle
• In-Class Activity:
  ○ Example interview questions in class
	• **Homework:** Peer mock interview
	  ○ Submit write-up w/ confirmation and feedback
	• **Homework:** Sign up for an interview slot on Google calendar

Week 7: Midterm - 10/16	

• 30-35 minute mock interview with course facilitators
  ○ Elevator pitch + behavioral question (10 minutes)
  ○ 1 technical concept question or system design question (5-10 minutes)
  ○ 1 product design type question (10-15 minutes)	

Week 8: Estimation - 10/23	

• How to Approach Estimation Questions
  ○ Key point: setting up a formula
  ○ Useful statistics to memorize
• Ex. How many McDonalds are there in the U.S.?
• In-Class Activity:
  ○ Partnered "mock" interview, solve an estimation problem *together*
	• **Homework:** Peer mock interview w/ someone in the class
	• **Homework:** Submit notes from mock (both interviewer and interviewee should take notes) + reflection containing an improved formula, knowledge applied, clarifying questions asked to interviewer

Week 9: Analytical - 10/30	

• How to Approach Analytical Questions
  ○ Practice: developing a framework, asking clarifying questions, note-taking
• Narrowing Down a Cause
  ○ Internal/external, segmentation by OS, regional impact, Y2Y trends, etc.
• In-Class Activity:
  ○ Note-taking in an analytical interview
	• **Homework:** Online mock interview with Stellar Peers or find someone in class
	• **Homework:** Submit notes from mock + reflection

Week 10: Launch/KPIs - 11/06	

• Common KPIs and when to use them
  ○ Churn/retention, profit margins, CTR, CPC, CAC, conversion rate, time
  ○ Examining different types of products/services (P2P, direct-consumer, B2B, etc.)
• Launch Techniques
  ○ A/B testing, staged rollouts, demographic/geographic rollout
	• **Homework:** Pick a product feature:
	  ○ Submit write-up describing feature, how you would launch it, how to measure its success (what KPIs should be used and why)

Week 11: Case Questions - 11/13	

<table>
<tr><td>How to Approach Case Questions
Discussion of frameworks that are useful to breakdown case questions (e.g., SWOT Analysis)</td><td>Homework: Complete a SWOT analysis on a case question (questions will be provided)</td></tr>
<tr><th colspan="2">Week 12: Case Studies - 11/20</th></tr>
<tr><td>Demonstration of how to answer Case Question from instructors
In-Class Activity:
Mock interview with case question</td><td>Homework: Research a pain point of your favorite product or company and find a solution
Homework: Sign up for an interview slot on Google calendar</td></tr>
<tr><th colspan="2">Week 13: Finals - 12/04</th></tr>
<tr><td colspan="2">30-35 minute mock interview with course facilitators
Behavioral question (5 minutes)
1 estimation question (10-15 minutes)
1 case question OR 1 analytical question (15-20 minutes)</td></tr>
</table>

*Students will be given exactly a week to complete homework assignments. All homework assignments will be due before class time a week after it is assigned.

Grading

Grades will be maintained on (ELMS). You will be responsible for all material discussed in lecture as well as other standard means of communication (Slack. Email announcements), including but not limited to deadlines, policies, assignment changes, etc.

Any request for reconsideration of any grading on coursework must be submitted within one week of when it is returned. No requests will be considered afterwards.

Your final course grade will be determined according to the following percentages:

Percentage	Title	Description
40%	Weekly HW	Weekly assignments including peer mock interviews, written assignments related to lecture content, and short video recordings. **LATE POLICY:** Homeworks will be accepted up to 48 hours after the deadline, with a 10% deduction for each day late. However, homework will still be accepted for another week for up to half credit - if there are any extenuating circumstances please let the instructors know.
20%	Midterm	The midterm will be on topics from weeks 1-6 and will consist of a mock interview with one of the instructors.
20%	Participation	Most classes will consist of in-class activities. Showing up more than 5 minutes late will result in a grade of 0 for participation for that class period. Students with excused absences will not be penalized for missing class. Please see below for the absence policy. Students with special circumstances, such as a far-away previous class, should speak with instructors on the first day.
20%	Final Exam	The final exam will cover all the topics discussed during the semester* and will consist of a mock interview with one of the instructors. *You can choose whether your final is cumulative or only second-half topics

Communicating with course staff

Class communication will be mainly through Slack (all homework announcements, etc.) Interaction beyond the classroom is encouraged, but should be limited to important or more urgent issues. Topics that need not be addressed immediately can wait till class time.

Instructor(s) Name(s) and Email(s):

- Dr. Michelle Mazurek: mmazurek@cs.umd.edu

Facilitator(s) Name(s) and Email(s):

- Srivarshini Parameswaran: srivparam17@gmail.com
- Desiree Abrokwa: dabrokw1@umd.edu

Excused Absence and Academic Accommodations

See the section titled "Attendance, Absences, or Missed Assignments" available at Course Related Policies.

Any excused absences that can be known in advance (e.g., religious holidays, travel for sports, etc), please let us know within the first two weeks of class.

Accessibility and Disability Services

The University of Maryland is committed to creating and maintaining a welcoming and inclusive educational, working, and living environment for people of all abilities. The University of Maryland is also committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the University, or be subjected to discrimination. The **Accessibility & Disability Service (ADS)** provides reasonable accommodations to qualified individuals to provide equal access to services, programs and activities. ADS cannot assist retroactively, so it is generally best to request accommodations several weeks before the semester begins or as soon as a disability becomes known. Any student who needs accommodations should contact me as soon as possible so that we have sufficient time to make arrangements.

For assistance in obtaining an accommodation, contact Accessibility and Disability Service at 301-314-7682, or email them at **adsfrontdesk@umd.edu**. Information about **sharing your accommodations with instructors**, **note taking assistance** and more is available from the **Counseling Center**.

Student Resources and Services

Taking personal responsibility for your own learning means acknowledging when your performance does not match your goals and doing something about it. We hope you will come talk to us so that we can help you find the right approach to success in this course, and we encourage you to visit **UMD's Student Academic Support Services website** to learn more about the wide range of campus resources available to you.

In particular, everyone can use some help sharpening their communication skills (and improving their grade) by visiting **UMD's Writing Center** and schedule an appointment with the campus Writing Center.

You should also know there are a wide range of resources to support you with whatever you might need (**UMD's Student Resources and Services website** may help). If you feel it would be helpful to have someone to talk to, visit **UMD's Counseling Center** or **one of the many other mental health resources on campus**.

Basic Needs Security

If you have difficulty affording groceries or accessing sufficient food to eat every day, or lack a safe and stable place to live, please visit **UMD's Division of Student Affairs website** for information about resources the campus offers you and let me know if I can help in any way.

Netiquette Policy

Netiquette is the social code of online classes. Students share a responsibility for the course's learning environment. Creating a cohesive online learning community requires learners to support and assist each other. To craft an open and interactive online learning environment, communication has to be conducted in a professional and courteous manner at all times, guided by common sense, collegiality and basic rules of etiquette.

Participation

- Given the interactive style of this class, attendance will be crucial to note-taking and thus your performance in this class. Attendance is particularly important also because class discussion will be a critical component for your learning.
- Each student is expected to make substantive contributions to the learning experience, and attendance is expected for every session.
- Students with a legitimate reason to miss a live session should communicate in advance with the instructor, except in the case of an emergency.
- Students who miss a live session are responsible for learning what they miss from that session.
- Additionally, students must complete all readings and assignments in a timely manner in order to fully participate in class.

Academic Integrity

Note that academic dishonesty includes not only cheating, fabrication, and plagiarism, but also includes helping other students commit acts of academic dishonesty by allowing them to obtain copies of your work. In short, all submitted work must be your own. Cases of academic dishonesty will be pursued to the fullest extent possible as stipulated by the Office of Student Conduct. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit http://www.shc.umd.edu.

Course Evaluations

If you have a suggestion for improving this class, don't hesitate to tell the instructor or TAs during the semester. At the end of the semester, please don't forget to provide your feedback using the campus-wide CourseEvalUM system. Your comments will help make this class better.

Thanks to the CS professors at the University of Maryland, College Park for the basic syllabus outline.

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