# 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, Desiree Abrokwa
- **Faculty Advisor:** Dr. Michelle Mazurek
- **Special Thanks for helping with syllabus & course material:** Annie Fang

# 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)<br>• Resume review/constructing a PM style resume<br>• Mini Slack Tutorial<br>  ○ Notifications for specific channels<br>• In-Class Activity:<br>  ○ Kahoot Quiz to go over different types of PMs & Slack concepts | • **Homework:** Submit a PM style resume<br>• **Homework:** Complete Resume Peer Review (partners will be assigned)<br>• **Homework:** Each student introduces themselves on Slack (name, year, major, why they're taking the class, fun fact!)<br>• ***Optional Reading:*** Chapter 1 in *The Product Book* |
| **Week 2: Behavioral Prep - 09/04** | |
| • Behavioral Question Prep<br>  ○ Situation, Action, Result model (S.A.R.)<br>  ○ Five Key master stories (leadership, teamwork successes, challenges, mistakes/failures)<br>  ○ Short presentation of elevator pitches<br>• In-Class Activity:<br>  ○ Elevator pitches | • **Homework:** Submit 3 short written responses to behavioral questions using S.A.R. model with 2 video responses (each video max. 1 min) |
| **Week 3: Technical Concepts - 09/18** | |
| • Debunking Buzz Words<br>  ○ Ex. cloud, AI/ML, cryptocurrency, etc.<br>• How to Explain Technical Concepts<br>  ○ Different types of audiences<br>  ○ Data structures/algorithms<br>• In-Class Activity:<br>  ○ Technical Concept question practice within each group | • **Homework:** Submit a video explaining any technical concept (or pick one from a list) **AND** explain a new buzzword (max. 3 min video)<br>• ***Optional Reading:*** Chapter 1, Chapter 4 in *Swipe to Unlock* textbook |

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<tr><th colspan="2">Week 4: Technical Concepts (cont.) - 09/25</th></tr>
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- 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

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- **Homework:** Submit a written response to a system design question including technical limitations

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<tr><th colspan="2">Week 5: Product Design - 10/02</th></tr>
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- 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?

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- **Homework:** Watch mock interview online (will provide links) and submit write-up including personal approach with clarifying questions for the interviewer
- **Homework:** Feature doc **OR** Submit a video about a favorite product

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<tr><th colspan="2">Week 6: Product Design (cont.) - 10/09</th></tr>
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- 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

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- **Homework:** Peer mock interview
  - Submit write-up w/ confirmation and feedback
- **Homework:** Sign up for an interview slot on Google calendar

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<tr><th colspan="2">Week 7: Midterm - 10/16</th></tr>
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- 30-35 minute mock interview with course facilitators
  - Elevator pitch + behavioral question
  - 1 technical concept question or system design question
  - 1 product design type question

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| Week 8: Estimation - 10/23 | |
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| • How to Approach Estimation Questions<br>  ○ Key point: setting up a formula<br>  ○ Useful statistics to memorize<br>• Ex. How many McDonalds are there in the U.S.?<br>• In-Class Activity:<br>  ○ Partnered “mock” interview, solve an estimation problem *together* | • **Homework:** Peer mock interview w/ someone in the class<br>• **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<br>  ○ Practice: developing a framework, asking clarifying questions, note-taking<br>• Narrowing Down a Cause<br>  ○ Internal/external, segmentation by OS, regional impact, Y2Y trends, etc.<br>• In-Class Activity:<br>  ○ Note-taking in an analytical interview | • **Homework:** Online mock interview with Stellar Peers<br>• **Homework:** Submit notes from mock + reflection |
| **Week 10: Launch/KPIs - 11/06** | |
| • Common KPIs and when to use them<br>  ○ Churn/retention, profit margins, CTR, CPC, CAC, conversion rate, time<br>  ○ Examining different types of products/services (P2P, direct-consumer, B2B, etc.)<br>• Launch Techniques<br>  ○ A/B testing, staged rollouts, demographic/geographic rollout | • **Homework:** Pick a product feature:<br>  ○ Submit write-up describing feature, how you would launch it, how to measure its success (what KPIs should be used and why) |

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<tr><th colspan="2">Week 11: Case Questions - 11/13</th></tr>
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- How to Approach Case Questions
  - Discussion of frameworks that are useful to breakdown case questions (e.g., SWOT Analysis)

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- **Homework:** Guided worksheet with fill-in worksheet (single case or couple of options, have students fill in SWOT)

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<tr><th colspan="2">Week 12: Case Studies - 11/20</th></tr>
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- Demonstration of how to answer Case Question from instructors
- In-Class Activity:
  - Mock interview with case question

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- **Homework:** Submit response to sample case study given by instructors **OR** research a problem of your favorite company and provide a solution to it
- **Homework:** Sign up for an interview slot on Google calendar

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<tr><th colspan="2">Week 13: Finals - 12/04</th></tr>
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- 30-35 minute mock interview with course facilitators
  - Elevator pitch + behavioral question
  - 1 estimation question
  - 1 case question OR 1 analytical question

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*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.<br>**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.<br><br>*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.

# Disability Support Accommodations

We are committed to meeting the needs of people with learning difficulties or disabilities, so please let us know if you require additional support!

See the section titled "Accessibility" available at Course Related Policies.
Disabilities should be communicated to the course staff within the first week of 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.