Michael D. Adams: Teaching Statement

1 Teaching Experience

During my graduate study, I was an Associate Instructor[1] for five semesters. This included courses ranging from **freshman- to junior-level** and both **honors and non-honors** courses. All these courses involved either **discussion sections** or **labs** where I taught students directly. In Spring 2010, I received the department's **Associate Instructor of the Year** award.

In the Fall 2010 semester of *H211: Introduction to Computer Science, Honors*, I had a lot of input regarding the design of the course as it was being revamped that year and the primary instructor collaborated closely with me on course design. The students enjoyed the course so much that they gave us **thank-you letters** at the end of the course.

After graduate school, my duties as research faculty have generally precluded class-room teaching. However, I am **proactive in mentoring**, and in **Fall 2020** and **Spring 2021**, I am a **primary instructor** for *EECS 203: Discrete Mathematics*, which is a **first-semester course** for many students.

Section 6 contains a complete list courses for which I have been an Instructor or Associate Instructor.

2 Mentoring

I enjoy both **helping students learn and grow** and **sharing the beauty that is computer science**. I actively seek collaboration and mentoring opportunities with both undergraduate and graduate students. In an informal capacity, I have mentored and collaborated with over a dozen undergraduate and graduate students. (In fact, a number of my papers are fruits of such mentorship.) In an official capacity, I have mentored multiple student teams in **Undergraduate Research Opportunities in Computing (UROC)** programs.

3 Philosophy

A strong influence on my teaching style is a belief in the importance of helping students see and understand both the **practical application** and the **broader context** of what is being taught. An example of this is an assignment that I designed and implemented for the data structures class. In lecture, students were learning about **stack**, **set**, and **graph** representations. For this assignment, I integrated these ideas by having students implement a pattern matcher in terms of these data structures. This assignment allowed students to see how the representations they were learning in lecture applied to a **realistic programming problem**. At each stage, we discussed different representations of these structures as well as the advantages and disadvantages of each. Afterwards, several students made a point of telling me how much **they enjoyed that assignment** as it helped them better understand the **practical application** of the techniques being learned.

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[1] At Indiana University, they use the title "Associate Instructor" where most other institutions would use the title "Teaching Assistant".

4 Suitable Courses

I would be comfortable teaching any undergraduate course in the standard CS curriculum. Based on my training and background, I would be particularly well suited to teaching courses in **data structures**, **algorithms**, **programming languages and paradigms**, **theory of computing**, **systems-level programming**, and **introductory computer science**.

5 Quotes from Student Letters and Evaluations

"Thank you for being an outstanding AI this semester." (Alex Liby)

"It was a pleasure being taught by you." (Andy Spillman)

"The world needs more teachers like you." (Jordan Tritell)

"Although I am an art major, this class was definitely my favorite of the semester." (Brittany Keilly)

"... helped me learn much more in two hours on a Friday afternoon than most [AIs] would help me learn in a month's worth of labs. ... Thanks for being the best AI that I've ever had." (Kate Sanders)

"Michael is absolutely fantastic." (Anonymous evaluation)

"He knows how to make students think through problems by giving hints and pointers in the right direction." (Anonymous evaluation)

"Good pace, easy to understand, good at interpreting questions & explaining." (Anonymous evaluation)

"Incredibly helpful and interested in student's development." (Anonymous evaluation)

"Michael was very helpful, knowledgeable, and insightful ... he inspired and educated." (Anonymous evaluation)

6 Teaching History

- **EECS 203: Discrete Mathematics** (Spring 2021)
  Instructor, *University of Michigan*

- **EECS 203: Discrete Mathematics** (Fall 2020)
  Instructor, *University of Michigan*

- **CSCI H212: Introduction to Software Systems, Honors** (Spring 2011)
  Associate Instructor, *Indiana University*

- **CSCI H211: Introduction to Computer Science, Honors** (Fall 2010)
  Associate Instructor, *Indiana University*

- **CSCI C343: Data Structures** (Spring 2010)
  Associate Instructor **(AI of the Year Award),** *Indiana University*

- **CSCI C343: Data Structures** (Fall 2009)
  Associate Instructor, *Indiana University*

- **CSCI C212: Introduction to Software Systems** (Spring 2009)
  Associate Instructor, *Indiana University*