

Dear Students,

It has been a pleasure to teach you all this semester. I had taught some of you before but many of you I got to meet and teach for the first time which is always nice. You just saw the first glimpse of Graph Theory but I hope I could convey some aspects of the beauty of this subject.

I would consider this a successful course, if you gain confidence in your ability to read, understand, and write mathematical arguments, as compared to the beginning of the semester. And, you feel that you can read, understand, and apply any other topic/ technique in Graph Theory that you might need later on in your career.

What next?

The textbook is excellent for further exploring topics in Graph Theory. You can pick any section and start reading and then trying the exercises (ask me if you need specific suggestions). Chapter 7 has many interesting yet easy concepts that we didn't cover. I would suggest starting with those. If you want to try reading a different book instead then I suggest trying one of the books I recommended at the bottom of the course webpage: <http://www.math.iit.edu/~kaul/TeachingSpr24/Math454.html#Books> . There are also a number of links to interesting articles and more, I hope you enjoy reading them.

How is Graph theory connected to other parts of mathematics (and CS, Physics, etc.)? If you are intrigued by the idea of using concepts from seemingly unrelated fields like analysis, probability, entropy, linear algebra, abstract algebra, MCMC, etc. to gain insight into combinatorial and graph theoretic problems in Math, CS, and Physics, then I strongly recommend to take Math 554 with me in Spring 2025. It's a fun fun course, chock full of beautiful and deep ideas from across mathematics, if I do say so myself :-)

There is so much more to learn, discover and create! Don't hesitate to ask. If you are interested in research in Graph theory then write me an email. I will be happy to chat.

I am always available if you need any help learning mathematics at any time.

I hope to see you in my classes, or at least hear from you, in the future.

Related to this, I also want to dispel a notion many students have - that teachers only like or respect "A" students. Your teachers and mentors respect you as a person, not as a grade-producing blackbox. Majority of my past students who are still in touch with me, received grades like B, C, D, W, or even E. The point of saying this is that don't hesitate to ask your teachers for help regardless of what your grade or performance is.

We do not know the circumstances of your life and your life's journey. We understand (and hopefully you do too) that the worth of a person does not come from their grades or money or any such extrinsic quality.

Our success is NOT measured by exams and grades, but by our individual progress on our own path to learning with understanding. Pursuit of knowledge, and learning with understanding gives us direction and can keep us calm and graceful under pressure of exams, projects, and such. I am purposefully using 'us' and 'our' here, because your teachers are fellow travelers on the same path; and wish for nothing more than you to join them on this journey.

I wish you the best in all your future endeavors.
Take care and be kind not just to others but also to yourselves.

Hemanshu

p.s. Here is a wish, in the words of A.R. Ammons, for each one of you:

*May happiness
pursue you,*

*catch you
often, and,*

*should it
lose you,*

*be waiting
ahead, making*

*a clearing
for you.*