Online Course Evaluations

2017-Fall

Instructor Primary
MATH 199 01
Mathematical Problem Solving

Q:
Summarize the strengths and weaknesses of the instructor. In what ways was their teaching effective and in what ways could their teaching be improved?

(Your anonymous response to this question may be viewed only by your instructor(s) and administrators responsible for evaluating teaching.)

Responses:

Instructor: Patrick Devlin

Pat is cool. He's great. He gets excited about math and it is infectious. Way to go Pat.

Instructor: Patrick Devlin

Haha, what an amazing guy. I've only heard good things about him from his 230 students, and honestly the math department at Yale just feels twice as vibrant with him around. I mean, he quadrupled? quintupled? our Putnam exam participation this year. 96 or so students decided an 5-8 hour soul-crushing commitment on the weekend before reading week was 100% worth it because of this guy. Good things are coming Yale Math's way with him around.

Instructor: Patrick Devlin

Cool professor, and knows a lot about competition math.

Instructor: Patrick Devlin
I'm really thankful to have Patrick as a member of the Math Department. I can't wait to see all he accomplishes here and hope he'll be able to stay at Yale long term if he wants to

Instructor: Patrick Devlin

Pat is more dedicated to his students than any professor I've ever met before. His level of engagement with every student is absolutely incredible.

Instructor: Patrick Devlin

Pat is an amazing teacher who is great at getting people excited to have fun doing math

Instructor: Patrick Devlin

Pat is great and made the class a lot of fun. I loved learning from him, and seeing his approach to math.

Instructor: Patrick Devlin

Pat is effective in expression mathematical ideas and thoughts. He is also helpful when you speak to him. During class however, he is often unavailable, most likely busy helping another student.

Instructor: Patrick Devlin

Great teacher, very focused on students' learning.
Instructor: Patrick Devlin

Pat is wonderful! His enthusiasm is infectious and he really is very articulate when teaching. I found him a very encouraging presence this semester (in math and all else).

Instructor: Patrick Devlin

Pat is a fantastic addition to the department and a magnetic instructor! His enthusiasm is infectious, and he is one of the most inclusive teachers I've ever had (a rare feat in mathematics). He has done more for the Yale math community in the past year, than I have seen so far in my entire time at Yale.

Instructor: Patrick Devlin

Pat is seriously wonderful. He took student input into account when organizing the course, picked interesting problems, explained concepts clearly and had just the right level of engagement/help when we worked independently on questions. He also was very influential in getting many students to take the exam, including myself, and I'm glad I took it. He is enthusiastic, knows the material, well-organized, very approachable, and cares about improving the math community at Yale. I can't think of any ways to improve his teaching!

Instructor: Patrick Devlin

It's abundantly clear that Pat cares about undergraduate mathematicians at Yale. In this class and outside of it, he has put tremendous amounts of time into teaching math, making math fun, and supporting the fast-growing math community at Yale. Pat can always answer questions, of course, but he is careful to answer them in a way that leads you to the answer yourself. Huge fan!

Instructor: Patrick Devlin

He's great, kept it chill, provided snacks, taught us material... 10/10 :)

Instructor: Patrick Devlin

cool guy
Pat was great!

Instructor: Patrick Devlin

Good teacher, funny and humorous

Instructor: Patrick Devlin

Great!!!

Instructor: Patrick Devlin

Professor Devlin teaches math in a highly-intuitive way that I thoroughly enjoyed.

Instructor: Patrick Devlin

Very energetic and enthusiastic instructor that made class time go by quickly. Really willing to go out of his way to help students and volunteered at multiple math-related extracurriculars throughout the year.

Instructor: Patrick Devlin

Thanks for being awesome Pat. His enthusiasm was clearly always there, and I really thought that the way we were guided through solving problems was unique and great.
Pat was really enthusiastic about everything in the class, to the point of infectiousness. I would have liked to see more lecture topics combined with more "simulated" Putnam conditions, but I guess that was limited this year due to the short length of class. I'm really happy that he was able to put this space together for math/non math majors, people of color, women, pretty much everyone--it is something that is missing on a lot of college campuses, and this class is a pretty big deal for a lot of people, myself included!
I learned some cool math tricks that help both in the classroom and on competitive exams!

Pigeons and pigeonholes

Honestly, I was not expecting to learn a whole lot, because I'd tried and failed learning competition stuff before. Perhaps it was the fun, accepting environment, but somehow a lot of stuff just clicked this time around, and some of it actually helped remedy some deep, hidden concepts that I had left misunderstood or ill-understood years ago, which in turn just made me feel a lot more confident as a mathematician, even if my competition performance did not skyrocket. That said, I’m pretty sure I did better on the Putnam than I would have without going through this class (well, I guess it’s probably not /too/ hard getting above a 1).
Learned some tricks for the Putnam

This class teaches you general approaches to solving questions asked on the Putnam exam. This year that class split into two classrooms, one for people who wanted to go through the proofs in depth, and others who didn't want as much depth. Each class often had some sort of theme, going over way to use specific strategies for different types of problems.

As this course was advertised a way to get better at the Putnam Competition, I felt that it accomplished this goal. The course was a structured approach to studying and preparing for the exam, with Pat preparing a lot of wonderful notes for us to use to prep for the competition. Most of the skills are the usual math tricks, this course merely sharpened them and kept them relevant in my mind for the exam.

I learned how to solve Putnam problems; most of the instruction was about basic topics such as Pigeonhole Principle, but there was also some nontrivial topics such as $f(x) = 1/(1-x)$ which is more Putnam specific.

I learned how to approach Putnam problems, which involves a lot of creativity. We also had lectures each week from either Ross or Pat, and they led them just like any other class with great organization.

Great way to foster community in the math major! As a girl who had often felt excluded socially
Problem solving, putnam prep

Extensive problem solving techniques for math competition questions.

I received some good practice for the Putnam competition.

I learned a lot more about the types of questions that appear on the Putnam, and a whole bunch of different and interesting methods for solving them. The approaches were organized by field recursion, number theory, functional equations, etc.

I became more familiar with common types of mathematical competition problems and strategies to solve them. I also came out of MATH 199 feeling more connected to the math community at Yale.

(and in study groups) from her peers, this class and Pat gave me a great network of people not only to study with, but also gave me the opportunity to meet older math majors and hear their advice. Pat did a fantastic job of making the environment supportive for everyone and the class itself was more of a fun time than anything else.
This course covered a pretty wide range of topics from a number of different fields of math,

I learned how to use various mathematical techniques to solve Putnam questions and also see the approaches that one might take in arriving at these solutions.

Fun Putnam questions

Techniques for solving Putnam Competition problems!

Lots of cool math tricks!

Problem solving skills

This course covered a pretty wide range of topics from a number of different fields of math,
including number theory (divisibility, modular arithmetic, etc.), algebra (polynomials, fundamental theorem, sequences and series, etc.), and combinatorics (pigeonhole principle, counting, etc.).

I learned how to think through problems effectively in groups.

Prep for Putnam Exam

Learned a lot of really cool and useful math tricks--not only for competition math, but general techniques. The fact that there was no coherent theme for all of the problems meant that there was a lot of liberty in picking and choosing what we were interested in, then learning a lot about it and practicing.

Decline to Answer

17
Online Course Evaluations

2017-Fall
Instructor Primary
MATH 199 01
Mathematical Problem Solving

Q:
What are the strengths and weaknesses of this course and how could it be improved?

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Responses:
Could possibly be improved by better catering to different skill levels of people taking the class. Other than that, it provided a good opportunity to practice solving mathematical problems in a fun and stress-free environment.

It was an excellent chance to work on problems that we wouldn't normally see in classes, in a really nice, collaborative environment. Maybe another session a week would help?

The course is a lot of fun and accomplishes its goal!

It was fun, but pretty unstructured
I though this course was great overall and loved that it was so interactive. For me, I would have liked to learn a little bit more. This math was often above my head, which made it hard to just sit down and do any of the problems on my own. It would have been nice to have an option that was a little more intensive of teaching, just so I would be able to learn more about how to solve these problems on my own.

Some strengths include the relaxed nature of the course where everyone was welcome to join and where everyone was very excited to learn about math. At the same time the lax nature of the course lends itself to being overwhelmed by a lot of students, including those who are serious about the exam and those who are not. Another major strength I think helped with prepping for the exam was the structure of how the material was presented in that every week had a different topic/strategy for the exam. A last weakness, because there were a lot of students and not as many faculty it was hard to get help and feedback regarding the problems we were working on.

Extremely chill class. However, many students weren't really motivated (kinda wanted to find a free .5 credit). I personally liked working on the problems, but even still didn't feel quite motivated enough to work on problems outside of class. I was always a math competition person, but there's not a lot of time outside of class, and I suppose I don't value the Putnam quite enough. Without the credit though, I probably wouldn't have gone to the sessions, embarrassingly enough. The credit really gives a slight reward to putting in the hours every week, giving me an excuse mentally for spending time on preparing for the Putnam rather than doing my other coursework.

A great course for building community within the math major and also doing fun problems! I have no complaints.

It was really great!! The instructors were able to cover a lot of material in a short amount of time, and it was a nice mixture of independent work and instruction. Their enthusiasm was also great. I do wish we had spent more time going over solutions, or received solutions to the last weeks problems the following week. Many questions that stumped me, I ultimately did not find out the solution for, and I think it would have been valuable to go over 2-3 questions at the start, rather than 1-2.

This class is interesting, fun, and extremely low-stress. The biggest problem with the course was the
I think it was organized in a great way that allowed you to meet new people easily.

 Fun a bit disorganized

 strengths: no work, everything is voluntary beyond attendance, pat is a great person to talk to
 weakness: better organization would make the course more engaging.

It wasn't very structured, if you aren't at the level to be making progress on Putnam questions, I wouldn't recommend it.

I think it was organized in a great way that allowed you to meet new people easily.
The professor could teach more instead of having us do problems by ourselves all the time.

The collaborative nature of this course was excellent.

The course had a great structure with time both to do questions on our own, and going over things together with the instructor.

Great course to relax and work on competition math problems that would not ever be seen in classes. Very collegial environment and had high amounts of discussion.

I really enjoyed the space for conversation and collaboration that this class provided; however, I felt like I couldn’t get enough! Perhaps the course could be scheduled for a longer period of time, and/or have problems assigned and attempted for credit. Segregation of the rooms into strictly quieter/louder rooms might also be helpful.
2017-Fall

Instructor Primary
MATH 199 01
Mathematical Problem Solving

Q:

Would you recommend this course to another student? Please explain.

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Responses:

Fun, challenging, and a very low workload. Take it.

Yes, take this! It's not really a large time commitment, and it's also a hub for the undergrad math community, which is just full of cool, helpful people. Also really sharpens your problem-solving skills, especially when a lot of your math classes might be a lot heavier on the understanding-theory part rather than coming up with brilliant calculations.

If you want a light course to take for credit and to learn some fun math that will help you on the Putnam and in math generally, take this course!

Yeah, its super low commitment, and a lot of fun. If youre interested in math, this is a great way to
I would absolutely recommend this course to another student. Competition math may seem like

Definitely take this class! It's a great way to meet other math students at Yale. I found the problems really interesting and it was a fun challenge to try to solve them coming to class every week. I love how this class was serious about math, but allowed us to engage with the subject in a less traditional setting.

If you enjoyed math competitions and want to take the Putnam seriously, definitely take this course. If you are unsure and/or want to learn more about math competitions and general math also a very good choice.

Excellent class for all levels of mathematical ability. There's really no challenge persay, it's really how much you want to put into the class. Grading is literally attendance and probably not even that. Just enjoy the class and learn as much as you can.

If you're a math major and interested in taking the Putnam, or even if you just want exposure to fun and interesting problems, I would definitely recommend this course.

Very much so! I would've gone even if not taking it for a credit.

I would absolutely recommend this course to another student. Competition math may seem like
something you're good at or you're not, but it turns out there are a whole bunch of learnable, useful techniques, and practice does help. Plus, it's a lot of fun, the problems are diverse and cool, and you get to know a lot of other people in the Yale math community.

If you like math enough to take a math class that won't fulfill your QR requirement, take this class. There are no assignments and no tests, so the workload is literally 0. However, the problems that we looked at in class were cool and fun, and were definitely useful as prep for the Putnam Competition. Just seeing that type of problem and having a little practice solving them is helpful. Also, Pat is a really fun professor who cares a lot about the math community at Yale--this class is very social, and a great way to feel connected to the math community as well.

This is a fun lowkey course. Would recommend, although 6:30pm is an inconvenient time.

Yes, it was fun, easy and cool

I would recommend the course to anyone who wants to prepare for the Putnam competition or is simply interested in problem solving.

yes, if you enjoy solving putnam problems.

yes if you are interested in math and Putnam questions
Yes! Take it.

I would not recommend this class unless you are already at Putnam solving level. If not, it isn't a very productive use of time, and you probably aren't going to improve very much. Wait until sophomore or junior year when you have more experience with different kinds of problems, and it'll be much more interesting then.

Yes

If you love math and likes hanging out with other math people then take this class

If you have any level of interest in math and want to improve your mathematical problem-solving skills by tackling hard problems in a collaborative environment, take this course. This course is designed to be taken in preparation for the Putnam exam, as each class focuses on a different concept that commonly appears on the Putnam. However, you can still take this course if you have no interest in sitting for the exam.

Yes!!!
Decline to Answer 17

Definitely if you are willing to engage in competitive math.

Would recommend, Pat and the other teachers are really wonderful and helpful, and the problems we worked on are fun.

Yes! The entire premise of the class is to learn cool math and enjoy yourself while doing it. For a lot of students, there is no accessible and formalized opportunity (in college) to learn competition math; this class was a great way to provide that opportunity to people of all skill and experience levels.
## EVALUATION SUMMARY

Total Courses: 4  
ENROLLED: 46  
RESPONSES: 42  
DECLINED: 0  
NO RESPONSE: 4

### Patrick Devlin, 2017-18 Courses.

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<thead>
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<th>Term</th>
<th>Course</th>
<th>Title</th>
<th>Enrolled</th>
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<tbody>
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<td>MATH 077 01</td>
<td>Math as a Creative Art</td>
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<td>MATH 199 01</td>
<td>Mathematical Problem Solving</td>
<td>46</td>
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### Course Overall: 4.1  
Primary Dept: MATH  
Primary Div: Sciences

#### Instructor: Patrick Devlin

**Average and Standard Deviation**

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<th>Course</th>
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### Q:

Your level of engagement with the course was:

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 8  
Average Rating: 3.1*
Q: What is your overall assessment of this course?

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 5
Average Rating: 4.1

Q: The course was well organized to facilitate student learning.

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 8
Average Rating: 3.9*
Q: I received clear feedback that improved my learning.

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 11
Average Rating: 3.3*

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Q: Relative to other courses you have taken at Yale, the level of intellectual challenge of this course was:

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 8
Average Rating: 3.0*
Q:
Relative to other courses you have taken at Yale, the workload of this course was:

(Your anonymous response to this question may be viewed by Yale College students, faculty, and advisers to aid in course selection and evaluating teaching.)

Declined to Answer: 8
Average Rating: 1.3

Instructor: Patrick Devlin

Average and Standard Deviation

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<th>Course</th>
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<td>1.3 ± 0.5</td>
<td>3.3 ± 0.9</td>
<td>3.3 ± 1.0</td>
<td>3.2 ± 1.0</td>
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much less  less  same  greater  much greater

n=25  n=8  n=1  n=0  n=0