Advice from previous FoMP students

“First and foremost, form a study group. The concepts and problems are entirely new and you can tackle them better as a team. My study group has stayed together through other classes over the past two years and it has been really valuable. Second, know that you will hate this class. There will probably be more work and it will be more difficult than any other math class you’ve taken. But it’s entirely worthwhile. Looking back, it was extremely helpful in preparing me for Abstract Algebra and Real Analysis. You’ll be thankful later when you ace the first tests in those classes because you already learned the early material. Good luck!”

Daniel Valdez, FoMP Fall 2012.

“I was a student who had previously enrolled in AVS and ended up taking a W for the class. When FoMP was first advertised I was thrilled because I knew what the alternative was and it didn’t work for me. The nice thing that this course can offer is not only a look at how to write proofs but a glimpse at the different areas in mathematics. Once I completed this course I felt slightly more prepared than others in my abstract algebra and real analysis I classes. To not only be successful in the course and in future proof based courses, you have to learn to not only the pieces that go inside a proof but also understand the reasons why the pieces are necessary and work. The text for this book (at least when I took it), is different than other math books you will see. But it is great at demonstrating topics and then asking you to practice. The more you work at writing proofs, the more naturally it will come. Once you learn the basics, which this course teaches, it will be second nature to write them in the future.”

Rachel Wiseley, FoMP Fall 2012.

“As far as advice during the start of the course goes, I must say that they should take the course very seriously from the start, whether they find it difficult or not. Personally, FoMP was the first math class that was really challenging for me (and still remains as one of the most challenging classes I’ve taken). I imagine that this will be the position of most of the students and the difficulty will catch them by surprise (as it caught me by surprise) if they are not prepared. Even if someone doesn’t find the class difficult, I would still advise them to take it as seriously as everyone else because this class seems to have a remarkable impact on ones ability and understanding when it comes to more advanced mathematics. Personally, I feel as though the class had a huge impact on my own understanding with the philosophy of mathematics, which I would argue is a major factor in ones capability in proceeding forward to more abstract maths.”

Forrest Kieffer, FoMP Spring 2013.

“My classmates and I bonded very quickly because we all realized the course required more effort outside the classroom than normal. Once we had our study group together, we helped each other learn and understand the concepts taught in class by doing practice problems and going through homework problems together. We often found an empty classroom and filled the boards with all the proofs we could fit. While it was a lot of extra work, it helped tremendously and ended up being really fun when we finally felt comfortable writing proofs. Then it became like a puzzle every time (more fun than frustrating)… and isn’t that why we all chose to study math?!

P.S. I’m so glad I took this class instead of 2406. It really prepared me for all the classes I’ve taken since. Stick it out. It’s worth it!

P.P.S. Also, office hours were super helpful. Take advantage of them.”

Anonymous
“Positives of the course:
- You delivered in depth coverage of logic and abstract algebra which really helped me with the 4000 level abstract algebra class.
- Your emphasis on team work has really laid a foundation for how I approach homework in my courses. A lot of times when I get stuck with a proof I essentially join a group and we do everything from think abstractly think together to drawing pictures.
- Your level of difficulty was appropriate and I felt that it matched the corresponding difficulty of Algebra and Analysis I.
- Your curve that you implemented I thought was extremely fair and I felt that I worked to the bone to get the grade that I got.”

Ben Sutton, FoMP Fall 2012.

“I’d say they just need to put in a lot of work. Unfortunately you can’t write a proof if you don’t even know what the hell is going on, so you really have to put work into understanding the main idea and memorize the definitions. Nearly all of your homework and test problems could be done with no effort if I really knew the definitions and theorems. But I didn’t. Work hard on understanding the concepts and definitions.”

Conner Herndon, FoMP Spring 2013.

“For current Foundations of Mathematical Proof students, my biggest advice would be to never underestimate the power of logic. By that I mean to pay attention and really try to understand the first few weeks of the course regarding logic because the understanding you take away from those key lessons will affect how well you write and understand proofs in the rest of your upper level math classes!
That being said, it is also important to have an understanding of the elementary analytical and algebraic concepts presented (i.e. set theory, relations, groups, etc. etc.). Therefore, my number two piece of advice would be to ask questions when you don’t understand something! It is paramount to understand something as soon as possible, otherwise you risk getting stuck in a rut of confusion and will fall behind your peers intellectually.
Lastly, something I wish I had done more of, was take the In Class Assignments (ICAs) more seriously. As I previously stated, if you don’t understand them, go back and review them so you comprehend them by the time of the test. The opportunity to learn alongside your classmates without having to worry about a grade (only sometimes) is quite beneficial!”

Josh Forbes, FoMP Fall 2012.

"Even though the following suggestions sound trivial and well-known, they did help me succeed in this course.
- Firstly, attending class regularly, taking note carefully (I bet that you will like Pro. Heitsch's hand-writing), and being active while working on in-class assignments with other classmates.
- Secondly, reviewing notes and digesting textbook or supplemental materials provided through class webpage before trying homework. Ideally, joining in a group study to discuss and finish as many problems as you can on the homework set. The more you do, the better you will be.
- Lastly, do not hesitate to visit Prof. Heitsch's office hours if needed.
- Then, I am sure that you will be in a very good shape before tests, midterm, and final.
- In my opinion, the biggest achievement from this course will not only be a record of grade A, but also will be a very well foundation that will strongly prepare you to succeed at any other advance proof-based courses like Abstract Algebra and Analysis next semester. ”
Anonymous