Frequently Asked Questions – Math Majors

These questions are organized roughly in order of increasing senority – so, questions affecting first-years first, then sophomores, then juniors, then seniors.

Q: I'm a first or second year. What MATH courses should I take?

All math majors must take the five "foundation" courses MATH 1337, 1338, 3302, 3304, 3313. The order of the last three doesn't matter too much if switching them helps you out, and **y**ou can take more than one of them at once. You should aim to finish all five foundations, as well as CSE 1340 or 1341, by the end of your second year.

Q: I'm hearing about a Python-based intro CS course. Should I take that?

In short, yes. We are very excited by the new Python-based CS 1340, and several of our math courses are moving toward using Python as well (though not all of them yet). Therefore, we do recommend that you consider choosing CS 1340 this course over the Java-based CS 1341.

Q: I haven't declared, but Math will be my primary major. Should we meet?

Although I'm happy to answer any questions you may have, the standard procedure is that you will stay with your general university advisor until you declare your first major, after which you'll be transferred into the care of that major advisor. If math is your first major, that will be me.

Q: I haven't declared, and Math will be my second major. Does anything change?

Unfortunately, just a bit. Although you must declare your first major with GUA, but additional majors will be declared with the respective departments. I don't know why!!! Don't worry, though – just focus on declaring your first major, after which your first major advisor will help point you in the right direction.

Q: I'm thinking about Operations Research / Computer Science specialization.

Unless you are an EMIS / CS double major, these aren't for you.

Unfortunately, several of our "specializations" are really just streamlined plans for students double-majoring in certain Lyle majors. OR is the path for EMIS double majors, and CSE is the path for CS majors. If you aren't a double-major in these schools, these plans actually require more coursework than the "Applied/Numerical" specialization, which is what you should do instead. This is so confusing, in fact, that we will be eliminating most "specializations" starting with the incoming class of Fall 2020.

Q. I'm in my third or higher year. What course should I take?

This depends on your specialization:

Pure: 10 MATH courses total. Make sure you take 3311 by the Fall of your junior year **at the very latest**!! (During sophomore year is better.) Then you need to start the pure math cycle – we currently offer 4338 every Fall, 5331 every Spring, and 4381/4355 every other spring. You should plan to take one of these each semester of your Jr./Sr. years.

Applied/Numerical: 10 MATH courses total. Plan to take 3311 and 3315, and then three from {4315, 4316, 4317, 4370; 4325, 4334, 4335, 4337}. Computational skills are very, very important in the modern economy, so I advise most students to take at least through 4315, but if you really, really hate programming, don't take 4315. Conversely, if you really enjoy computational math, consider 4316/4317 after you complete 4315.

Engineering (ME/EE/CEE): 8 MATH courses total. You must take 3315, and should then take **two** courses from {4315, 4325, 4337, 4334}. For EE majors, 4339 is another option. Then make sure two of your Lyle electives are from the appropriate list in the math catalog.

Operations Research (EMIS): 8 MATH courses total. You must take 3315 (or 3316), and at least one from {4315, 4370, 4316, 4317, 4377}, plus an elective (4334 is ideal, 4325 is also popular).

Computer Science (CS): 9 MATH courses total, ideally including {3311, 3315, 4315, 4370, 4377}. Consider the honors distinction in computational science. Note that Math 3308 has been discontinued, and you must now take CSE 2353 for all your CSE requirements.

Q. When are various courses offered?
Math 3311, 3313, 3315 are each offered every semester, as are 4315, 4337, 4325.
Currently, Math {4316, 4334, 4338} are offered every Fall, whereas Math {4317, 4335, 4339} are offered every Spring. Other courses are offered less frequently – consult me for an anticipated schedule.

Q: My degree plan requires 3337, which isn't being offered !?!
In 2017 and 2019, the Math department made some significant adjustments to our curriculum and course numbers. However, some of Lyle's dual degree planning sheets may still reflect the old system.   Math 3337 has been retired – its content is now found in 3302 and 4337. See the 2017 version of the catalog for the latest requirements.

Q: My degree plan requires a 5000-level math elective. There aren't any?!?
See above. All classes formerly at the 5000-level have been moved to either the 4000- or 6000-levels.   For the record, there is no actual requirement that you take a 5000 level course. The math department requires dual majors to take at least one MATH **4000+** course. All the new 4XXX will therefore fill the box you are seeing. You are also highly encouraged to take a second course from among the new 4XXX as your advanced elective.

Q: My DPR is not showing MATH 4XXX !!!
At the moment, the DPR system on my.smu.edu is lagging behind our curricular changes. We apologize for this headache, but most issues can be worked out by contacting the Dedman Records Office (dcrecords@smu.edu), and requesting to change your MATH MAJOR only to the 2017 version.

Q. I changed my major to the 2017 version, but there are still problems with my DPR.
Make an appointment right away!