Quarter-By-Quarter Graduation Plan

For the General Curriculum

**Directions:** On the following page is a graduation plan template. Use the checklist on pages 3-6 of this handout to fill in the template with your own graduation plan. As you choose classes, pay attention to pre-requisites and make sure that the course you are interested in is actually offered in the quarter in which you plan to take it (this information can be found on the checklist). In the first row, list Be sure to include years you have already completed, and write down courses covered by AP credit in the appropriate place on the template. Transfers can simply list the courses taken elsewhere in the space for the first year. If you need more than 4 years, download another copy of the template. After you have worked out a plan, take it to your math department advisor and have them look it over with you and sign it (you should give yourself some time to do this since your advisor’s schedule and yours might not align immediately ... if you don’t know your math department advisor, email me, the mathematics department, or the advising center and we can look it up for you). Turn in your completed and signed graduation plan and checklist in class on 5/22.
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**Plan for future quarters**

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<th>Fall</th>
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List courses already taken or currently taking and courses covered by AP credit.

Name: _______________________

General Curriculum: _______________________

Advisor's Signature: _______________________

Date: _______________________
Check list for the General Curriculum

Use these sheets to ensure that you have fulfilled the requirements of the math major under the general curriculum.

**Core Courses:** Every math major is required to take each of the following courses. Be sure to note the prerequisites (listed with each course) as well as the **quarters in which the course is offered** (if no quarters are specified, then the class runs every quarter). All courses are 4 credits unless otherwise listed.

- □ 141 Calc I
- □ 142 Calc II (after C− or better in 141)
- □ 143 Calc III (after C− or better in 142)
- □ 202 Orientation to Math Major (1 credit) (**Fall** or **Spring**; after 143)
- □ 206 Linear Alg I (after 143)
- □ 241 Calc IV (after 143)
- □ 242 Diff Eq (**Winter** or **Spring**; after 206 and 241)
- □ 248 Methods of Proof (after 143)
- □ 306 Lin Alg II (after 206, 241, and 248 with C− or better)
- □ 412 Analysis I (**Fall** or **Winter**; after 306)
- □ 459 Senior Sem (**Fall** or **Spring**; after 306 and two other 300+ level courses)
- □ 461 Sen Proj I (2 credits)
- □ 462 Sen Proj II (2 credits)
- □ 481 Abstract Alg I (**Fall** or **Winter**; after 306 or 341)
- □ Phys 141 (after Math 141 with C− or better and during or after Math 142)
- □ Phys 132 or 133 (after Phys 141)
General Curriculum required courses: Take each of the following courses. Be sure to note the prerequisites (listed with each course) as well as the quarters in which the course is offered.

- CSC/CPE 101 (Fall or Spring)
- Stat 301 (Fall or Winter; after or during Math 142), or Stat 325 (Spring; after Math 206 and CSC/CPE 101), or Stat 425 (Fall; after Math 241 and 248)
- Math 336; Combinatorics (Fall or Winter; after 248 or Junior standing)

General Curriculum Tracks: Choose three tracks, at least one from the first two listed. Be sure to note the prerequisites (listed with each course) as well as the quarters in which the course is offered.

- 413 Analysis II (Winter; after 412), and 414 Analysis III (Spring; after Math 413)
- 406 Linear Alg III (Spring; after 306), and 482 Abstract Alg II (Winter or Spring; after Math 481)
- 304 Vector Calc (Winter or Spring; after 206 and 241), and 404 Differential Geometry (Fall 2013 or Fall 2015; after 304)
- 335 Graph Theory (Fall 2013 or Fall 2015; after 248 or Junior standing), and 435 Discrete Math I (Fall; after 248 with C− or better and 336)
- 344 Linear Analysis II (Fall or Winter or Spring; after 206 and 242), and 416 Diff Eq II (Winter 2014 or Fall 2014; after 206 and 242), or 418 Partial Diff Eq (Fall or Spring; after 344, recommended 304)
- 350 Math Software (Spring; after 206, 241 and CSC/CPE 101), and 341 Number Theory (Fall or Spring; after 248 with C− or better), or 344 Linear Analysis II (Fall or Winter or Spring; after 206 and 242)
- 408 Complex Analysis I (Fall; after 242), and 409 Complex Analysis II (Winter; after 408)
- 437 Game Theory (Spring; after 206 and 248 with C− or better), and 453 Numerical Optimization (Spring 2014 or Spring 2016; after 306 and 451)
- 440 Topology I (Winter; after 412 and after or during 481), and 441 Topology II (Spring; after 440)
- 442 Euclidean Geom (Winter; after 248 with C− or better, recommended 300), and 443 Modern Geom (Spring; after 442)
- 451 Numerical Analysis I (Winter; after 206, 242, and CSC/CPE 101), and 452 Numerical Analysis II (Spring 2013 or Spring 2015; after 451)
General Curriculum Electives: Choose three from the following. You may not choose classes used above. Be sure to note the prerequisites (listed with each course) as well as the quarters in which the course is offered.

Math options:

- □ 304 Vector Calc (Winter or Spring; after 206 and 241)
- □ 335 Graph Theory (Fall 2013 or Fall 2015; after 248 or Junior standing)
- □ 341 Number Theory (Fall or Spring; after 248 with C− or better)
- □ 344 Linear Analysis II (Fall or Winter or Spring; after 206 and 242)
- □ 350 Math Software (Spring; after 206, 241 and CSC/CPE 101)
- □ 404 Differential Geometry (Fall 2013 or Fall 2015; after 304)
- □ 406 Analysis II (Spring; after 306)
- □ 408 Complex Analysis I (Fall; after 242)
- □ 409 Complex Analysis II (Winter; after 408)
- □ 413 Analysis II (Winter; after 412)
- □ 414 Analysis III (Spring; after 413)
- □ 416 Diff Eq II (Winter 2014 or Fall 2014; after 206 and 242)
- □ 418 Partial Diff Eq (Fall or Spring; after 344, recommended Math 304)
- □ 419 History of Math (Winter; 248 with C− or better and at least one 300 level math course)
- □ 435 Discrete Math I (Fall; after 248 with C− or better and 336)
- □ 436 Discrete Math II (Winter; after 435)
- □ 437 Game Theory (Spring; after 206 and 248 with C− or better)
- □ 440 Topology I (Winter; after 412 and after or during 481)
- □ 441 Topology II (Spring; after 440)
- □ 442 Euclidean Geom (Winter; after 248 with C− or better, recommended 300)
- □ 443 Modern Geom (Spring; after 442)
- □ 451 Numerical Analysis I (Winter; after 206, 242, and CSC/CPE 101)
- □ 452 Numerical Analysis II (Spring 2013 or Spring 2015; after 451)
- □ 453 Numerical Optimization (Spring 2014 or Spring 2016; after 306 and 451)
- □ 470 Selected Advanced Topics (Winter or Spring; junior standing)
- □ 482 Analysis III (Winter or Spring; after Math 481)

Computer Science options:

- □ 102 Comp. Sci II (Fall, Winter, or Spring; after CSC/CPE 101 with C− or better and Math 141 with C− or better)
- □ 103 Comp. Sci II (Fall, Winter, or Spring; after CSC/CPE 102 with C− or better)
- □ 349 Algorithms (Fall or Spring; after CSC/CPE 103 with C− or better and Stat 312, 321, or 350 (can try to get instructor to accept Stat 301 or waive this requirement))

(more on next page)
Physics options:

- □ 132 Physics II (Fall, Winter, Spring or Summer; after Phys 141)
- □ 133 Physics III (Fall, Winter, Spring or Summer; after Phys 141 and Math 142, recommended Math 241)
- □ 211 Modern Physics (Fall, Winter, or Spring; after Phys 132, 133, and Math 241)
- □ 301 Thermal Physics (Winter; after Phys 211)
- □ 302 Classical Mechanics (Fall; after Phys 141 and Math 241, 242)
- □ 322 Vibrations/Waves (Fall; after Phys 132 and Math 242, recommended Math 304)
- □ 323 Optics (Winter; after Phys 133, 322, and Math 241)
- □ 405 Quantum Mech. I (Spring; after Phys 212, 302, 322 and Math 241, 242, recommended Math 304)
- □ 408 Electromag. Fields/Waves (Fall; after Phys 133 and Math 304)

Statistics options:

- □ 301 Stats I (Fall, or Winter; during or after Math 142)
- □ 302 Stats II (Winter; after Stat 301)
- □ 325 Intro to Probability (Spring; after Math 206 and CSC/CPE 101)
- □ 425 Probability Theory (Fall; after Math 241 and 248, recommended Stat 325, 425)
- □ 426 Est. and Samp. Theory (Winter; after Stat 425, recommended 302)
- □ 427 Mathematical Statistics (Spring; after Stat 426)
**General Education Requirements:**
See [http://www.ge.calpoly.edu/studentsandadvisors/allgecourses.html](http://www.ge.calpoly.edu/studentsandadvisors/allgecourses.html) for a complete list of available courses along with the various requirements.

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<th>□ A1 Engl 133/134 inches</th>
<th>□ A4 Upper-division elective inches</th>
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<tr>
<td>□ A2 Coms 101/102 inches</td>
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<td>□ A3 Reason, Arg &amp; Writing inches</td>
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<th>Area B: Science and Math</th>
<th>□ B2 Life Science inches</th>
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<th>Area C: Arts and Humanities</th>
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<td>□ C2 Philosophy: Phil 230/231 inches</td>
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<td>□ C3 Fine/Perf Arts inches</td>
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<th>Area D/E: Society and the Individual</th>
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<td>□ D5 Upper-division elective inches</td>
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<th>Area F: Technology</th>
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**General Free electives:** You must have at least 180 credits total to graduate with a Math Major from Cal Poly. For the General Curriculum, this requires **15 more credits**. These can consist of any Cal Poly courses, AP credits, or transfer credits which are **not used above**.

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