CCS Mathematics Degree Checklist

Note: There is flexibility on some of the points below as well as some obscure quirks so this checklist should be completed in consultation with your advisor. Additional comments are on the second page.

- □ 180 units of classes, an overall GPA of at least 2.0, and six quarters within CCS.
- □ UC Writing requirement.
- □ American History and Institutions Requirement

- General Education Requirements (See Comment 1)

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<th>Humanities &amp; Fine Arts or Social Sciences:</th>
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<td>Ethnicity Requirement:</td>
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<td>CCS Math Writing Requirement:</td>
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<th>Three Additional GE's:</th>
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- □ Two courses in Computer Science or Physics

- □ CCS Mathematics Core Requirements. (See Comments 2 & 3)

  - □ Intro to Higher Mathematics (CS128)
  - □ Math 111A
  - □ Problem Solving I (CS101A)
  - □ Math 111B
  - □ Problem Solving II (CS101B)
  - □ Math 111C
  - □ CS120F__
  - □ Math 118A
  - □ CS120F__
  - □ Math 118B
  - □ CS120F__
  - □ Math 118C
  - □ Advanced Linear Algebra I (CS108A)
  - □ Complex Analysis I (CS122A)
  - □ Advanced Linear Algebra II (CS108B)
  - □ Complex Analysis II (CS122B)
  - □ Intro to Real Analysis (CS117)
  - □ Probability and Combinatorics (CS121)

- □ Nine additional courses in Mathematics (See Comments 2 & 3)

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<th>CS120__</th>
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- □ For BS: Successful completion of a Capstone Project, including Math 197AB.

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1 This can be included as one of your CCS GE requirements if it is completed at UCSB as a 3+ unit letter-graded class.

2 At least one Computer Science course is strongly recommended here.
Comments

1. A GE here means a 3+ unit class taken for a letter grade in a department other than Math, PStat, Physics or Computer Science. At least five of these must come from a department in the Division of Humanities & Fine Arts or Division of Social Sciences. The CCS Math Writing Requirement is Writing 2 or an upper-division Writing class. At most two classes from the same department can be counted here. Only two foreign languages may count here. In the Department of Linguistics only LING N with \( N \geq 15 \) can count.

2. CCS classes only count toward the degree if you receive at least \( n - 1 \) units in an \( n \) unit class. All non-CCS classes must be taken for a letter grade and be passed with a C or better for it to count here. Online classes may not be used here.

3. The nine additional courses may come from: CCS or upper-division Mathematics Department classes; Mathematics Department graduate classes (except Math260’s); or the Probability and Statistics classes listed below. Additionally:

   • Two must be of the form CS120XY with \( X \neq F \). These can count as in one of the areas below depending on content.
   • Students must take at least one class from three of the following areas:
     (a) *Number Theory and Combinatorics*: Math115AB, Math116, Math137AB
     (b) *Geometry and Topology*: Math113, Math132A, Math145, Math147AB
     (c) *Differential Equations and Applied Mathematics*: Math104ABC, Math108C, Math114, Math119AB, Math124AB,
     (d) *Probability and Statistics*: PSTAT120BC, PSTAT160AB, PSTAT126, PSTAT131, or any data science related graduate PSTAT class.
   • Math199 (Independent Studies) can count at most twice, and each time with the approval of your advisor.
   • Math182 may count as an elective with approval of the advisor.
   • Mathematics classes whose description states that they are aimed at future teachers or transfer students cannot count as an elective.
   • Most graduate classes in the mathematics department may be taken as an elective only after sufficient undergraduate preparation. Students who aim to do this should speak to their advisor as soon as possible.