

MATHEMATICS DEGREE REQUIREMENTS

Lower Division Requirements:

Math 2A ___ 2B ___ 2D/H2D ___
2J ___ 2E/H2E ___ 3A ___ 3D ___;
E/CEE/MAE/EECS 10/EECS 12 ___ or
ICS 21 ___ or Physics 53 ___

One of the following sequences:

·Chem 1A ___ B ___ C ___; or
·Physics 7A ___ B ___ D ___; or
Physics 7A ___ B ___ E ___; or
·Physics 7B ___ D ___ E ___

Upper-Division Requirements:

Upper-division Math courses are organized into Core Areas. Students are required to complete **15** upper-division one-quarter lecture courses in Mathematics (with associated laboratories when applicable) as follows:

- A. Math 120A ___ 121A ___
B. Math 140A ___ B ___
C. A third lecture course from the Algebra (120-129) Core Area ___
D. A third lecture course from the Analysis (140-149) Core Area ___
E. One additional lecture course from either Algebra or Analysis ___
F. & G. Two courses from one of the following core areas and one course from a second core area:
Num. Anal.(100-109) ___
Appl. Math (110-119) ___
Prob. & Stat. (130-139) ___
Logic (150-159) ___
Geom./Top. (160-169) ___
H. Five additional lecture courses in Math numbered 100-189:

• Specialization in Statistics •

Admission requires approval in advance from the Math Dept. An application should be completed in the Math Department office.

All requirements for the Math major must be satisfied. In fulfilling Core area F & H, students must include the following courses:
Math 131A ___ 131B ___ 131C ___; or
Stats 120A ___ 120B ___ 120C ___

and either 130B ___ 130C ___ or
132B ___ 132C ___

plus two courses pre-approved by the specialization's advisor _____
(Math 105A and 171A have pre-approval.)

• Concentration in Mathematics for Economics •

Admission requires approval in advance from the Math Dept. An application should be completed following completion of Econ 20A-B, which must be done before the beginning of the junior year.

Lower division requirements are the same as those for the Math degree. Upper-division requirements are as follows:

Nine required lecture courses:

Math 120A ___ 121A ___ 121B ___
140A ___ 140B ___ 140C ___
131A ___ 131B ___ 131C ___; or
Stats 120A ___ 120B ___ 120C ___

Three elective lecture courses, chosen from the following:

Math 105A/LA ___ 105B/LB ___ 107/L ___
112A ___ 112B ___ 112C ___
118A ___ 118B ___ 118C ___
130B ___ 130C ___
171A ___ 171B ___ 176 ___

Eight Economics courses:

Econ 20A ___ 20B ___
Econ 105A ___ 105B ___ 105C ___
Econ 123A ___ 123B ___ 123C ___

• Specialization in Applied and Computational Mathematics •

Admission requires approval in advance from the Math Dept. An application should be completed in the Math Department office.

Lower division requirements are the same as those for the Math degree. Upper-division requirements are as follows:

A. Thirteen upper division courses:

~Ten required lecture courses plus associated labs:
Math 105A/LA ___ 105B/LB ___
107/107L ___ 112A ___ 112B ___
112C ___ 115 ___ 121A ___
140A ___ 140B ___
~A two-quarter sequence chosen from:
Math 114A ___ 114B ___; or
Math 114A ___ 147 ___; or
Math 118A ___ 118B ___; or
Math 120A ___ 120B ___; or
Math 130A ___ 130B ___; or
Math 131A ___ 131B ___; or
Math 140C ___ 140D ___; or
Math 162A ___ 162B ___; or
Math 171A ___ 171B ___; or
Stats 120A ___ 120B ___

~One additional math course numbered 100-189 _____

B. Two approved courses _____

(From an area of application outside of Mathematics. Approval obtained in advance from the advisor for this specialization.)

• Specialization in Mathematics for Education •

(Pending approval)

Admission requires approval in advance from the Mathematics Department. The admission process begins with completing a form at the Department office (MSTB 103), and includes an interview with the Department's Undergraduate Advisor and its Tutor Supervisor. This approval should be applied for no later than the end of the junior year.

Lower Division Requirements:

Math 2A ___ 2B ___ 2D/H2D ___
2E ___ or 13 ___
2J ___ 3A ___ 3D ___
E/CEE/MAE/EECS 10/EECS 12 ___ or
ICS 21 ___ or Physics 53 ___

One of the following sequences:

·Chem 1A ___ B ___ C ___; or
·Physics 7A ___ B ___ D ___; or
Physics 7A ___ B ___ E ___; or
·Physics 7B ___ D ___ E ___

Upper-Division Requirements:

Math 120A ___ 120B ___ 121A ___;
Math 124 ___ Math 140A ___ B ___
Math 131A ___ 131B ___; or
Stats 120A ___ Stats 120B ___
Math 150 ___ 161 ___ 180 ___ 184 ___
One additional math course numbered 100-189 _____

One quarter of Education 172B ___
Two quarters of Math 192 _____

A California Commission on Teaching Credentialing (CCTC)-approved subject-matter preparation program (SMPP) in Mathematics can be satisfied in tandem with this specialization, and enables students to waive a subject matter exam for teachers. Specific SMPP requirements and enrollment procedures are available from the Department of Education.