

SUMMER 2019 ✓	FALL 2019 ✓	WINTER 2020	SPRING 2020
<p>Math 2A: Differential Equation Professor: Y.H. Park Lee (M)</p>	<p>Math 1D: Calculus II Professor: Y.H. Park Lee (M)</p>	<p>BIOL 12: Human Genetics Professor: Leif Pallesen (G)</p>	<p>Chem 1C: General Chemistry III Professor: Sandhya Rao (M)</p>
<p>Danc 10: Topics in Dance History Professor: Barbara Shewfelt (G)</p>	<p>Chem 1B: General Chemistry II Professor: Sandhya Rao (M)</p>	<p>Math 2B: Linear Algebra Professor: Y.H. Park Lee (M)</p>	<p>MUSI 2CH: Great Composers Professor: Robert Hartwell (G)</p>
	<p>CS 2A: Obj. Oriented Programming C++ Professor: David Harden (M)</p>	<p>Math 10: Elementary Statistics Professor: Rachel Mudge (I)</p>	<p>CS 21A: Python for Programmers Professor: Elaine Haight (M)</p>
	<p>MUSI 8H: Music of Amer. Culture Professor: Robert Hartwell (G)</p>	<p>ENGR 11: MATLAB Professor: Jeff Anderson (I)</p>	<p>ENGL 1C: Argumentative Writing Professor: Theresa Hansen (I)</p>
Foothill	Foothill	Foothill	Foothill

M: Major Course

G: IGETC (General Education)

I: Interest

W20 ENGR 11 Lab 2 (7)

Document (4)

SUMMER 2020

FALL 2020

WINTER 2021

SPRING 2021

Math 104 : Intro to Analysis  
Professor : Philip Wood (C)  
(4)

ECON 100A : Economic Analysis  
Professor : David Card (S)  
(4)

Stat 20 : Intro to Prob.  
& Stat.  
Professor : Shobhana Stoyanov  
(4) (S)

IEOR 130 : Methods for Improving  
Manufacturing Performance  
Professor : Robert Leachman (E)  
(3)

Berkeley

Math 110 : Linear Algebra (4)  
Professor : Edward Frenkel (C)

Math 113 : Intro to Abstract Algebra  
Professor : James Conway (C) (4)

ECON 100B : Economic Analysis  
-- Macro (4)  
Professor : Martha Olney (S)

ECON 141 : Econometric Analysis  
Professor : Bryan Graham (S)  
(4)

Berkeley

(In semester)

C: Core Course

E: Elective Course

S: Second Major

W20 ENGR 11 Lab 2

SUMMER 2021	FALL 2021	WINTER 2022	SPRING 2022
	Math 128A: Numerical Analysis Professor: Richard Zhang (C)(4)		Math 185: Intro to Complex Analysis Professor: David Corwin (C)(4)
	IEOR 160: Nonlinear & Discrete Optimization (3) Professor: Javad Lavaci (E)		IEOR 162: Linear Programming (3) & Network Flows Professor: Dorit Hochbaum (E)
	ENGR 120: Principles of Engineering Economics (3) Professor: Ian Adler (S)		ECON 136: Financial Economics Professor: Raymond Hawkins (S)(4)
	ECON 119: Psychology & Economics Professor: Dmitry Taubinsky (4)(S)		ECON 113: US Economic History Professor: James DeLong (S)(4)
	ECON 133: Global Inequality & Growth Professor: Gabriel Zucman (S)(4)		Berkeley

W 20 ENGR 11 Lab 2

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Document

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Work	Engage in CFA Program (Undecided)	SUMMER 2022
Work	Prepare for GMAT/GRE for MBA (Undecided)	FALL 2022
Work	Devoted to WORK (Undecided)	WINTER 2023
Work		SPRING 2023

SUMMER 2023		Engage in CFA Program (Undecided)	Work
FALL 2023		Prepare for MBA	Work
WINTER 2024		WORK	Work
SPRING 2024		WORK	Work

work	Engage in Part-time MBA Program	SUMMER 2024
work	Engage in CFA Program	FALL 2024
work		WINTER 2025
work	WORK	SPRING 2025



## Course Requirements: Applied Mathematics

### Requirements for the Major in Applied Mathematics

(consists of five lower-division and eight upper-division courses)

#### LOWER-DIVISION REQUIRED COURSES

Mathematics 1A Calculus **MATH 1A**  
 Mathematics 1B Calculus **MATH 1B**  
 Mathematics 53 Multivariable Calculus **MATH 1C + 1D**  
 Mathematics 54 Linear Algebra & Differential Equations **MATH 2A + 2B**  
 Mathematics 55 Discrete Mathematics **MATH 22**

(We will accept Physics 89 in lieu of Math 54 for students with a double major in Physics, provided that the grade is at least a C. We will accept EE 16A plus EE 16B in lieu of Math 54 for students with a double major in Computer Science or Electrical Engineering and Computer Science, provided that both grades are at least a C. We will accept Computer Science 70 in lieu of Mathematics 55 for students with a double major in Computer Science or Electrical Engineering and Computer Science, provided that the grade is at least a C.)

#### UPPER-DIVISION REQUIRED COURSES

Mathematics 104 Introduction to Analysis  
 Mathematics 110 Linear Algebra  
 Mathematics 113 Introduction to Abstract Algebra  
 Mathematics 128A Numerical Analysis  
 Mathematics 185 Introduction to Complex Analysis

#### THREE CLUSTERED ELECTIVES

Applied Math majors, with signed approval by their faculty advisors, select a minimum of **three upper-division (or graduate) elective courses to form a coherent cluster in an applied area**. Courses in other departments may count toward this requirement provided they have substantial mathematical content at an appropriately advanced level and have a unit value of at least 3.

Sample clusters with suggested courses are listed below. Before any alternative courses may be used as major electives, the student must obtain a **Faculty Advisor's** (<https://math.berkeley.edu/programs/undergraduate/advising#faculty>), signed approval on the **Course Approval Form** (<https://math.berkeley.edu/sites/default/files/pages/Course%20Approval%20Form.pdf>), and return it to an **Undergraduate Advisor** (<https://math.berkeley.edu/programs/undergraduate/advising#staff>), in 964 or 965 Evans for their student file.

#### SAMPLE CLUSTERS AND COURSES

(review clusters listed or design one with **faculty advisor** (<https://math.berkeley.edu/programs/undergraduate/advising#faculty>)).

**Actuarial Science:** Mathematics 128B, Statistics 134 or 140, 135, 151A, Economics 141

**Classical Mechanics:** Mathematics 123, 189, Physics 105, Mechanical Engineering 104

**Computer Science:** Mathematics 124, 128B, Computer Science 162, 164, 170, 172, 174, 184, 188, 189

For CS course enrollment instructions, please see <http://www.eecs.berkeley.edu/Policies/enrollment.shtml> (<http://www.eecs.berkeley.edu/Policies/enrollment.shtml>).

**Data Science:** Computer Science C100, 188, 189, Mathematics 170, Statistics C100, 133, 134 or 140, 154

**Economics:** Economics 103, 104, 141, Mathematics 103, 170, Statistics 134 or 140, 155

**Fluid Mechanics:** Required: Mechanical Engineering 106; Elective: 2 of Mechanical Engineering 163, Chemical Engineering 141 or Engineering 115, Mathematics 126, Mathematics 128B

**Geophysics:** Required: Geophysics 108 and 121; Elective: 1 of Geophysics 104, 122, 130 or 145

**Life & Physical Sciences:** Generally: Mathematics 123, 126, 128B

**Mathematical Biology:** Required: Mathematics 127; Elective: 2 of Mathematics 170, 172, 126 or 128B

**Numerical Analysis:** Mathematics 123, 126, 128B

**Operations Research:** Statistics 134 or 140, **Indust. Engr. & Oper. Research 130, 160, 161, 162**

**Probability Theory:** Mathematics 105, Statistics 134 or 140, 150

**Quantum Mechanics:** Mathematics 126, 189, Physics 137A, 137B

**Relativity:** Required: Math 140 and Physics 139; Elective: 1 of Math 126 or Math 141

**Social Sciences:** Generally: Statistics 134 or 140, 135, 150, 151A, 151B, 153

**Statistics:** Mathematics 128B, Statistics 134 or 140, 135, 150, 153, 154, 155, 156

**Systems Theory:** Electrical Engineering and Computer Science 104, 120, 122, 123

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Please also note the following...

# Articulation Agreement by Department

Effective during the 2019-2020 Academic Year

To: University of California, Berkeley  
2019-2020 General Catalog, Semester

From: Foothill College  
2019-2020 General Catalog, Quarter

## Mathematics

**MATH 1A** - Calculus (4.00)

←

**MATH 1A** - Calculus (5.00)

(Fall 2018)

--- Or ---

**MATH 1AH** - Honors Calculus I (5.00)

**MATH 1B** - Calculus (4.00)

←

**MATH 1B** - Calculus (5.00)

(Winter 2019)

--- And ---

**MATH 1C** - Calculus (5.00)

(Spring 2019)

**MATH 10A** - Methods of Mathematics: Calculus, Statistics, and Combinatorics (4.00)

←

No Course Articulated

**MATH 10B** - Methods of Mathematics: Calculus, Statistics, and Combinatorics (4.00)

←

No Course Articulated

**MATH 16A** - Analytic Geometry and Calculus (3.00)

←

**MATH 1A** - Calculus (5.00)

(Fall 2018)

**MATH 16B** - Analytic Geometry and Calculus (3.00)

←

**MATH 1A** - Calculus (5.00)

(Fall 2018)

--- And ---

**MATH 1C** - Calculus (5.00)

(Spring 2019)

**MATH 32** - Precalculus (4.00)

←

**MATH 48C** - Precalculus III (5.00)

**MATH 53** - Multivariable Calculus (4.00)

←

**MATH 1C** - Calculus (5.00)

(Spring 2019)

--- And ---

**MATH 1D** - Calculus (5.00)

(Fall 2019)

**MATH 54** - Linear Algebra and Differential Equations (4.00)

←

**MATH 2A** - Differential Equations (5.00)

(Summer 2019)

--- And ---

**MATH 2B** - Linear Algebra (5.00)

(Winter 2020)

**MATH 55** - Discrete Mathematics (4.00)

←

**MATH 22** - Discrete Mathematics (5.00)

(Winter 2019)

END OF AGREEMENT



## College of Letters & Science (/)

Home (/home) » Advising (/ls-office-undergraduate-advising) » Planning (/advising/planning)  
 » Schedule Planning (/advising/planning/schedule-planning) » Four Year Planner

# Four Year Planner

## Freshman Year - 0 to 29 units

- Complete Golden Bear Advising.
- Familiarize yourself with campus resources and L&S advising resources.
- Explore possible majors – Use the [Berkeley Academic Guide \(http://guide.berkeley.edu\)](http://guide.berkeley.edu) to learn about various majors, identify prerequisite courses, and review course descriptions. Visit department websites and your potential undergraduate major adviser (UMA).
- Plan to complete [Reading and Composition \(https://ls.berkeley.edu/reading-composition-requirement\)](https://ls.berkeley.edu/reading-composition-requirement) by end of your fourth semester.
- Review degree requirements and create four-year plan.
- Consult on your program plan with an [AskLnS Peer Adviser \(https://ls.berkeley.edu/advising/tools-forms/ls-peer-advising\)](https://ls.berkeley.edu/advising/tools-forms/ls-peer-advising) if you live in the residence halls, or a College Adviser.
- Meet with advisers to check your academic progress.
- Visit the Career Counseling Library to take assessments that may help identify a major/career path that would be a good fit.
- Join [Handshake \(https://career.berkeley.edu/handshake-login\)](https://career.berkeley.edu/handshake-login) to learn about internships, summer jobs, graduate school and career preparation.

## Sophomore Year - 30 to 59 units

- Plan to declare a major by the end of your fourth semester.
- Prepare for an alternative major, in case you do not meet declaration requirements.
- Schedule an appointment with a College Adviser to discuss degree progress.
- Explore [enrichment opportunities \(http://www.youtube.com/watch?v=7O6lgcU9tMI\)](http://www.youtube.com/watch?v=7O6lgcU9tMI) such as study abroad, research, or internships.
- Meet with advisers to check your academic progress and update your plan.
- Start thinking about [career \(https://career.berkeley.edu\)](https://career.berkeley.edu) and/or [graduate school \(https://career.berkeley.edu/Info/GradProf\)](https://career.berkeley.edu/Info/GradProf) opportunities.

1/15/2020

Four Year Planner | College of Letters &amp; Science

## Junior Year - 60 to 89 units

- If undeclared, meet with a College Adviser to discuss your plans for declaring a major before reaching 75 units.
- Meet with advisers regularly to check your academic progress.
- Check your plan for major requirements with your undergraduate major adviser (UMA); and your degree requirements with an College Adviser.
- Visit the Career Center (<https://career.berkeley.edu>) and consider enrichment experiences (such as study abroad, externships, internships or research).

## Senior Year - 90 and over

- Meet with your UMA and a College Adviser to confirm you have completed all degree requirements.
- Put yourself on the degree list through CalCentral (<https://calcentral.berkeley.edu>) or by petition in 206 Evans for the semester you intend to finish your degree.
- Register for any commencement ceremonies via Berkeley Commencement. (<https://commencement.berkeley.edu>)
- Meet with a Career Center (<https://career.berkeley.edu>) counselor to discuss graduate school, employment, or preparation for both.

Next: Choosing a Major (<https://ls.berkeley.edu/advising/planning/schedule-planning/choosing-major>)

### TOPICS

LS Advising ([/topics/ls-advising](https://ls.berkeley.edu/advising))

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