MAJORS CURRICULUM UPDATE FOR 2019-20 (2020-21 APPLICANTS)

New Majors in 2020-21

Applied Chemistry B.S. (Environmental Chemistry Emphasis) - Formerly an emphasis under Chemistry B.S.

Preparatory Subject Matter:

Total Units: 45-51 quarter units

Chemistry; choose a series:

CHEM 2A, 2B, 2C General Chemistry

OR

CHEM 2AH, 2BH, 2CH Honors General Chemistry

Physics; choose a series:

PHYSICS 7A, 7B, 7C General Physics

OR

PHYSICS 9A, 9B, 9C Classical Physics

Mathematics; choose a series:

MATH 16A, 16B, 16C Short Calculus

OR

MATH 17A, 17B, 17C Calculus for Biology & Medicine

OR

MATH 21A, 21B, 21C Calculus

Biological Science:

BIOLSCI 2A Introduction to Biology: Essentials of Life on Earth

Statistics; choose one:

STATIST 13 Elementary Statistics

OR

STATIST 032 Gateway to Statistical Data Science
**Applied Chemistry B.S (Forensic Chemistry Emphasis) - Formerly an emphasis under Chemistry B.S.**

**Preparatory Subject Matter:**

Total Units: 48-54 quarter units

*Chemistry; choose a series:*

CHEM 2A, 2B, 2C General Chemistry

OR

CHEM 2AH, 2BH, 2CH Honors General Chemistry

*Physics; choose a series:*

PHYSICS 7A, 7B, 7C General Physics

OR

PHYSICS 9A, 9B, 9C Classical Physics

*Mathematics; choose a series:*

MATH 16A, 16B, 16C Short Calculus

OR

MATH 17A, 17B, 17C Calculus for Biology & Medicine

OR

MATH 21A, 21B, 21C Calculus

*Biological Science:*

BIOLSCI 2A Introduction to Biology: Essentials of Life on Earth

*Environmental Toxicology:*

ENV TOX 20 Intro to Forensic Science

*Statistics; choose one:*

STATIST 13 Elementary Statistics

OR

STATIST 032 Gateway to Statistical Data Science

**Newly Selective Majors**

Please see the UC Davis majors guide for 2018-19 for additional important advisories information and articulation. [https://admissions.ucdavis.edu/majorsGuide/index.cfm](https://admissions.ucdavis.edu/majorsGuide/index.cfm)

Students hoping to submit a TAG for these (or other) majors should view the TAG criteria at the UC Davis website [https://www.ucdavis.edu/admissions/undergraduate/transfer/transfer-admission-guarantee/criteria/](https://www.ucdavis.edu/admissions/undergraduate/transfer/transfer-admission-guarantee/criteria/)
Applied Physics (selective as of fall 2020)

Special Advising Note for applicants:

Beginning fall 2020, the major applied physics will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants). Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

-Physics 9A/B/C/D or Physics 9HA/HB/HC/HD/HE
-Mathematics 21A/B/C/D
-Mathematics 22A/B

Mathematics A.B.

Special Advising Note for 2020 applicants:

Beginning fall 2020, the major mathematics will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants). Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

- Mathematics 21A/B/C/D
- Mathematics 22A or Mathematics 67
- Mathematics 22B

Mathematics B.S.

Special Advising Note for 2020 applicants:
Beginning fall 2020, the major mathematics will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants).

Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

- Mathematics 21A/B/C/D
- Mathematics 22A or Mathematics 67
- Mathematics 22B

**Pharmaceutical Chemistry B.S.**

Special Advising Note for 2020 applicants:

Beginning fall 2020, the major pharmaceutical chemistry will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants).

Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

- Chemistry 2A/B/C or Chemistry 2AH/BH/CH
- Organic Chemistry 118A/B/C
  OR
- Mathematics 16A/B/C
  OR
- Mathematics 17A/B/C
  OR
-Mathematics 21A/B/C

Additionial Recommendations for this major:

- Biological Sciences 2A
- Biological Sciences 2B or 2C
- Physics 7A/B/C or Physics 9A/B/C
- Statistics 13 or Statistics 32

Physics A.B. (selective as of fall 2020)

Special Advising Note for 2020 applicants:

Beginning fall 2020, the major physics will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants).

Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

- Physics 9A/B/C/D or Physics 9HA/HB/HC/HD/HE
- Mathematics 21A/B/C/D
- Mathematics 22A/B

Physics B.S. (selective as of fall 2020)

Special Advising Note for 2020 applicants:

Beginning fall 2020, the major physics will become selective and will require preparatory coursework for admission. Any required courses that are offered at your current campus will need to be completed by the close of spring term prior to fall enrollment at UC Davis. If required courses will not be offered at your college, you must complete them after enrolling at UC Davis.

Transfer students must earn an overall GPA of 2.80 or higher to be competitive candidates for admission to this major (3.20 or higher for TAG applicants).

Strive to achieve your highest possible GPA in order to be most competitive.

Candidates must complete courses comparable to the following UC Davis courses with a GPA of at least 3.00 for the selective major course group. It is recommended that candidates have a cumulative GPA of at least 3.00 for the group of courses below that have been completed at the time of application and through the transfer academic update filing period. Whether planning for the general application or TAG process, courses must be taken for a letter grade, with no grade less
than C. (Advanced Placement (AP) or International Baccalaureate (IB) Higher Level examinations may satisfy UC course equivalents).

- Physics 9A/B/C/D or Physics 9HA/HB/HC/HD/HE
- Mathematics 21A/B/C/D
- Mathematics 22A/B

**Future Newly Selective Majors (applicants fall 2021 or later)**

**Economics A.B.**

Requirements in addition to general admission requirements and TAG requirements:

- Complete the following courses and maintain a 3.00 GPA in the entire group of courses:
  - Mathematics 16A/B/C OR Mathematics 17A/B/C OR Mathematics 21A/B/C
  - Economics 1A/B

Additional Recommendations:

- Statistics 13

**Managerial Economics B.S.**

Requirements in addition to general admission requirements and TAG requirements:

Complete the following required courses and maintain a 2.50 GPA in the entire group of courses:

- Economics 1A/B
- Mathematics 16A/B OR Mathematics 17A/B OR Mathematics 21A/B
- Statistics 13

*Future information subject to change

**Important Changes to Current Selective Major Criteria Effective 2020 Applicants**

**Applied Physics B.S. (in addition to selective major criteria above)**

ENG CS 30 requirement changed to PHYSICS 40, except for the Computational Physics Concentration which is ENG CS 36A AND ENG CS 36B.

Physical Electronics Concentration: now requires PHYSICS 40 and PHYSICS 80
Geophysics Concentration: now requires PHYSICS 40
Material Science Concentration: now requires PHYSICS 40
Physical Oceanographic Concentration no longer requires CHEM 2A or CHEM 2AH; now requires PHYSICS 40
Biotechnology B.S.
New requirement: BIOTEC 91

Bioinformatics Option:

ENG CS 36A changed to ENG CS 32A

Restricted electives changed to: ENG CS 20, 32B, 34, 50

Cell Biology B.S.
Chemistry series option added: CHEM 2AH/BH/CH
Physics series option added: PHYSICS 9A/B/C

Computer Science B.S. (College of Letters and Sciences)

Students should choose 3 COURSES (formerly one series) from: BIOLSCI 2A/2B/2C, CHEM 2A/2B/2C/2AH/2BH/2CH, PHYSICS 9A/9B/9C

Genetics and Genomics B.S.
Optional series PHYSICS 9A/B/C added

Managerial Economics B.S.
ENG CS 30/36A no longer required
New MATH options: 16B+16C+17A; 16B+16C+21A

Marine and Coastal Science (Marine Ecology & Organismal Biology) B.S.
New option for Chemistry: CHEM 118A/B/C

Mathematics A.B (in addition to selective major requirements, above)

MATH 25 no longer available or required
MATH 27A and 27B now options (for 22AB requirement)
ENG CS 36A no longer required
ENG CS 32A now required

Mathematics B.S. (in addition to selective major requirements, above)

MATH 27A and 27B now options (for 22AB requirement)
MATH 25 no longer available or required
ENG CS 36A no longer required
ENG CS 32A now required

Physics B.S. (in addition to selective major requirements, above):

ENG CS 36A no longer required
PHYSICS 40 now required
For Astrophysics emphasis: ENG CS 36B no longer required
**Plant Biology B.S.**

MATH 17A/B/C now optional series

BIOLSCI 20Q no longer recommended

**Psychology B.S.**

PSYCH 12Y new option for Statistics requirement

**New UC Davis courses offered fall 2019 (with GE areas)**

**UC Davis Campus GE key:**

Core Literacy: Amer. Cult., Gov. & Hist: Domestic Diversity (DD)
Core Literacy: Amer. Cult., Gov. & Hist. (ACGH) Core Literacy:
Oral Skills Literacy (OL)
Core Literacy: Quantitative Literacy (QL)
Core Literacy: Scientific Literacy (SL) Core Literacy:
Visual Literacy (VL)
Core Literacy: World Cultures (WC)
Core Literacy: Writing Experience (WE)
English Composition
Topical Breadth: Arts and Humanities (AH)
Topical Breadth: Science and Engineering (SE) Topical Breadth: Social Sciences (SS)

ANTHRO 36 Star Trek Social Theory  4.0  GE: SS

ART 10D  Cont Art Appreciation with Discussion  4.0  AH, VL

BIOLSCI 23B  Genome Hunters  3.0  SE

BIOLSCI 27A  Linear Alg Appl to Bio  4.0  SE

Cross-listed with MATH 27A

BIOLSCI 27B  Diff Equns Appl to Bio  4.0  SE

Cross-listed with Math 27B

CHICANO 42  Food Justice  4.0  SS, ACGH, SL, VL

CLASSIC 35  Food & Wine Ancient Med  3.0  AH, VL, WC

DESIGN 51  CAD for Designers  4.0  AH, VL

ENG E&C 7  Prog & Microcontrollers  4.0

ENG E&C 18  Digital Systems  1  5.0

ENGIN 8  Intro Entrepreneurship  3.0  SS

ENGIN 11A  Issues in Engineering  1.0  SE

ENGIN 11B  Issues in Engineering  1.0  SE

ENGLISH 3A Writer’s Workshop  2.0  Must be taken concurrently with English 3
ENGLISH 53 Youth in Revolt 3.0 AH, DD
EVOL&EC 16 Wild Davis 4.0 SE, SL, WE
GEOLOGY 53 Intro to Geobiology 3.0 SE
GEOLOGY 55 Intro to Geochemistry 3.0 SE, QL, VL
HISTORY 9C Korean Culture & Society 4.0 AH, DD, SL, WC, WE
HISTORY 16 Sex, Science & Society 4.0 AH, DD, SL, WC, WE
MATH 27A Linear Alg Appl to Bio 4.0 SE  
Cross-listed with BIOLSCI 27A
MATH 27B Diff Eqns Appl to Bio 4.0 SE  
Cross-listed with BIOLSCI 27B
N A STD 5A Writer’s Workshop 2.0 must be taken concurrently with N A STD 5
NE PH B 11 Exercise and Fitness 3.0 SE, SL Replaces EXC BIO 10
NE PH B 13 Extreme Animal Athletes 3.0 SE, QL, SL
PSYCH 61 Mindreading 4.0 SS
REL STD 31 Intro to Jainism 4.0 AH, WC, WE
REL STD 32 History of Yoga 4.0 AH, DD, WC, WE
REL STD 33 Magic and Demons 4.0 AH, OL, WC, WE
REL STD 66 Bhagavad Gita 4.0 AH, OL, WC, WE
SCI & TEC 16 Sex, Science, & Society 4.0 AH, DD, SL, WC, WE  
Cross-listed with HISTORY 16
UWRITING 1A Writer’s Workshop 2.0 must be taken concurrently with UWRITING 1