

MOLECULAR SYNTHESIS

Requirements for the MOLECULAR SYNTHESIS B.S. Degree

The Molecular Synthesis major offers a thorough training in all aspects of the molecular synthesis of organic, inorganic, and biological substances, and with a fundamental understanding of their structure and reactivity. This major provides an excellent preparation for employment in biotechnology, diagnostic, electronic, and pharmaceutical enterprises as well as for graduate programs in organic, bioorganic, and inorganic chemistry.

The following courses must be taken for a letter grade:

Lower-Division Requirements

1. General chemistry including laboratory (Chem. 6A-6C or 6AH-6CH, and 6BL, or equivalent).
2. Calculus (Math. 20A – 20D, or equivalent).
3. Calculus-based physics including laboratory (Phys. 2A-2B and 2D or equivalent, and either 2BL, 2CL or 2DL. Phys. 2CL is recommended and is accessible without Phys. 2C).

Upper-Division Requirements

1. Three quarters of organic chemistry (Chem. 140A-C or 141A-C)
2. Three quarters of physical chemistry (Chem. 131-133)
3. Two quarters of inorganic chemistry (Chem. 120A -120B)
4. One quarter of biochemistry (Chem. 114A)
5. Six laboratory courses (Chem. 100A, 143A or 143AM, 143B-C, 105A and 123)
6. Synthetic methods (Chem. 152)
7. Structural or mechanistic organic chemistry (Chem. 154 or 156)
8. Polymer, bioorganic or bioinorganic chemistry (Chem. 107 or 124 or 157)
9. One additional course from the following: Chem. 114B, 114C, 155, 185 or 199

Suggested Program for Molecular Synthesis B.S. Major

(Talk to your college for planning general education courses)

Many courses have enforced prerequisites or are offered once per year.

FALL	WINTER	SPRING
FRESHMAN YEAR		
Chem. 6A Math. 20A	Chem. 6B Math. 20B	Chem. 6C Chem. 6BL Math. 20C
SOPHOMORE YEAR		
Chem. 100A * Chem. 141A Math. 20D Phys. 2A	Chem. 141B Chem. 143AM Phys. 2B	Chem. 141C Chem. 143B Phys. 2CL Phys. 2D
JUNIOR YEAR		
Chem. 120A * Chem. 131 Chem. 143C	Chem. 120B Chem. 123 Chem. 132	Chem. 105A Chem. 133
SENIOR YEAR		
Chem. 114A Chem. 152	Chem. 154/156 Elective	Chem. 107/124/157

* Best time to study abroad. Education Abroad Program deadlines for upcoming year vary by country. See EAP website. See the Chem/Biochem Undergraduate Advisor for assistance in planning to study abroad.

RESOURCES

To be successful in your academic career, you will need to make the most of the services available to you at UCSD. Get connected to the services available to you as soon as possible to make the most of your education!

American Chemical Society-Student Affiliates

Email: acssa@ucsd.edu

www-ac.s.ucsd.edu/~acssa

UCSD Web Site: www.ucsd.edu

UCSD General Catalog

www.ucsd.edu/catalog

purchase at UCSD Bookstore, 858-534-7323

UCSD Career Services Center

858-534-3750, www-csc.ucsd.edu

UCSD Undergraduate Admissions

858-534-4831, admissions.ucsd.edu

Campus Walking Tours

858-822-1455, campustours@ucsd.edu

Education Abroad Program

858-534-1123,

<http://pao.ucsd.edu/acadint/chemistry.htm>

Undergraduate Colleges

The colleges determine the general education requirements that you must complete in addition to your major requirements. Be sure to meet with a college adviser.

Thurgood Marshall, 858-534-4110,

www.provost.ucsd.edu/marshall

John Muir, 858-534-3580,

www.provost.ucsd.edu/muir

Revelle, 858-534-3490,

www.provost.ucsd.edu/revelle

Eleanor Roosevelt, 858-534-9864,

www.provost.ucsd.edu/roosevelt

Earl Warren, 858-534-4350,

www.provost.ucsd.edu/warren

Sixth College, 858-822-5955,

www-sixth.ucsd.edu