

STEM

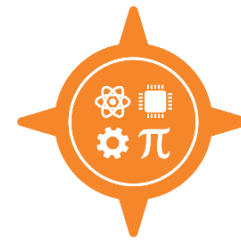
GUIDED PATHWAY: BIOCHEMISTRY

For more information, visit www.dcccd.edu and your academic advisor at your college.

Biochemistry is involved in all human activities, from growing and cooking food to launching a space shuttle. Understanding at least basic chemistry is critical for medical fields, most science-related professions, and diverse careers from industry to government and academia. The guided pathway in Biochemistry will provide a foundation for you to move on toward a career in the fuel industry, toxicology labs, and education. An Associate of Science (AS) degree with courses in this pathway prepares you to transfer to a university to earn a bachelor's degree that opens the door to a career in the medical field, engineering, research, industry, renewable energy and many more areas.

This is an example course sequence for students interested in pursuing Chemistry. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an AS degree², which will increase your chances of transfer to bachelor's-level programs. Courses that complete the Degree (D) are noted below. For official degree requirements, [click here](#).

Visit www.dcccd.edu/transfer to view the Top 15 colleges and universities to which students at the colleges of DCCCD transfer. There, you can also view [Transfer Pathways](#) with local universities. Visit with your academic advisor to choose courses that will help you to transfer to a specific university.



Offered at ALL Colleges

COLLEGE READINESS REQUIREMENTS

Enrolling in one or more courses may be necessary if assessment activities and previous academic experiences indicate a need for additional knowledge and skills:

READING & WRITING PLACEMENT MATH PLACEMENT ENGLISH LANGUAGE PROFICIENCY

TSI READING MET: YES NO TSI MATH MET: YES NO ENGLISH PROFICIENCY: YES NO

TSI WRITING MET: YES NO

IF TSI OR ENGLISH LANGUAGE PROFICIENCY NOT MET, INSERT COURSE(S) NEEDED

DREA / DWRI / DIRW (CIRCLE ONE)

DMAT _____

ESOL: _____

OTHER: _____

OTHER: _____

OTHER: _____

PROGRAM SPECIFIC REQUIREMENTS^A

- MATH 1314^A
- MATH 1316^A
- MATH 2412^A

^AThese are pre-reqs to MATH 2413.

Consider completing before transfer:

- ENGL 2311+
- MATH 2318+
- MATH 2415+
- PHYS 2425+

Exemptions/waivers may exist. Speak with an academic advisor regarding placement in college readiness courses and your ability to enroll in core academic coursework.

SEMESTER-BY-SEMESTER MAP FOR FULL-TIME STUDENTS³

ALL MAPS CAN BE MODIFIED TO FIT THE NEEDS OF PART-TIME STUDENTS

D	SEMESTER 1	ACTION ITEMS
♦	^C ENGL 1301 – Composition I	<input type="checkbox"/> Meet with your advisor to confirm your academic and career goals. <input type="checkbox"/> Meet with a career advisor/coach to research your career options with a Biochemistry degree. <input type="checkbox"/> Ask about your options for transferring to pursue the bachelor's degree.
♦	^E EDUC 1300 – Learning Framework [@]	
♦	^C MATH 2413 – Calculus I ^{A*}	
♦	^C CHEM 1411 – General Chemistry I	

TOTAL SEMESTER CREDIT HOURS: 14

D	SEMESTER 2	ACTION ITEMS
♦	^C ENGL 1302 – Composition II	<input type="checkbox"/> Begin researching universities where you would want to major in Biochemistry. <input type="checkbox"/> Meet with your advisor to confirm or update your academic/career pathway and program of study.
♦	^C MATH 2414 – Calculus II	
♦	^C CHEM 1412 – General Chemistry II	
♦	^C HIST 1301 – United States History II [*]	

TOTAL SEMESTER CREDIT HOURS: 14

D	SEMESTER 3	ACTION ITEMS
♦	<u>Choose One:</u> ^C ARTS 1304 – Art History II [*] ^C DRAM 1310 – Introduction to Theater [*] ^C MUSI 1306 – Music Appreciation [*]	<input type="checkbox"/> Begin applying to your top choice universities.
♦	^C HIST 1302 – United States History II [*]	

TOTAL SEMESTER CREDIT HOURS: 6

D	SEMESTER 4	ACTION ITEMS
♦	^C CHEM 2423 – Organic Chemistry I	<input type="checkbox"/> Begin applying to your top choice universities. <input type="checkbox"/> Begin applying for Financial Aid and Scholarships ○ You can start the FAFSA in October for the next academic year. (<i>i.e., in October 2018, you can complete the FAFSA if you plan to register for classes at a university Fall 2019</i>) <input type="checkbox"/> Check with your advisor for important deadlines and dates.
♦	<u>Choose One:</u> ^C ENGL 2332 – World Literature I [*] ^C PHIL 1301 – Introduction to Philosophy [*] ^C PHIL 2306 – Introduction to Ethics [*]	
♦	^C BIOL 1406 – Biology for Science Majors I	
♦	^C GOVT 2305 – Federal Government	
♦	^C PHED 1164 – Introduction to Physical Fitness and Wellness	

TOTAL SEMESTER CREDIT HOURS: 15

D	SEMESTER 5	ACTION ITEMS
♦	^C CHEM 2425 – Organic Chemistry II	<input type="checkbox"/> After reviewing your final program of study, apply for graduation. ○ Meet with your advisor to apply for the Associate of Science degree. ○ Sign up for commencement. <input type="checkbox"/> Request final transcripts to be sent to the college or university to where you will transfer. <input type="checkbox"/> Join the Alumni Network!
♦	<u>Choose One:</u> ^C ANTH 2346 – General Anthropology [*] ^C ECON 2301 – Principles of Macroeconomics [*] ^C PSYC 2301 – General Psychology [*] ^C SOCI 1301 – Introduction to Sociology [*]	
♦	^C GOVT 2306 – Texas Government	
♦	^C SPCH 1311 – Introduction to Speech Communication [*] OR	
♦	^C SPCH 1315 – Public Speaking [*]	

TOTAL SEMESTER CREDIT HOURS: 13

AS DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS | PATHWAY TOTAL: 62 SEMESTER CREDIT HOURS

¹ Degree plans may change in later catalogs. You may use this pathway if you entered one of the seven colleges on or before this date.
² Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by one of the seven DCCCD colleges awarding the degree.
^A To register for MATH 2413, students must have completed the prerequisite math courses as follows: MATH 1314, MATH 1316, MATH 2412
³ This is not an official degree plan. For official degree requirements, please [click here](#).
⁺ You should consider completing PHYS 2426 University Physics II before transferring to a university.
⁺⁺ Choose the appropriate course option based on the university to which you will transfer. See your academic advisor for specific details.
^C This course counts for the Core Curriculum at any public college or university in Texas.
[@] All college students with fewer than 12 semester credit hours of successful college credit (grade of "C" or above) should take a student success course in the first semester.
^{*} There are several options to fulfill this requirement. See your academic advisor for a specific list.
 You must earn a grade of "C" or better in English 1301 and the selected college-level mathematics course and receive a GPA of at least 2.00 on all college-level course work.

THIS PATHWAY WAS LAST UPDATED APRIL 15, 2019