

**GENETIC ENGINEERING AND BIOTECHNOLOGY**  
**Four-Year Graduation Guarantee**  
**2020-2021 Catalog**

Cedar Crest College's Four-Year Graduation (4YG) Guarantee is open to all academically qualified candidates enrolled full-time in a 4-year bachelor's degree program, with the exception of Nuclear Medicine Technology. It does not apply to dual degree, fifth-year, or graduate programs. Provided students comply with all of the conditions of the program, Cedar Crest College will guarantee graduation within four years. The guarantee extends to one major only. While many students add additional majors and minors and finish within four years, Cedar Crest will not be able to provide four year guarantee in those cases.

Conditions

By signing below, \_\_\_\_\_ is enrolled in the 4YG program for the Genetic Engineering and Biotechnology major under the 2020-2021 catalog requirements and agrees to

- assume ultimate responsibility for monitoring academic progress and the completion of all academic requirements;
- enroll at Cedar Crest for four continuous academic years;
- remain in good academic standing;
- complete an average of 30 new credits in each academic year. Courses must be selected in consultation with her academic advisor and 4YG coordinator and must apply to the recommended course sequence on page 2;
- maintain the GPA requirements of the Genetic Engineering and Biotechnology major and Liberal Arts Curriculum;
- meet regularly with her assigned academic advisor and 4YG coordinator following the schedule outlined below;
- resolve all outstanding holds that would prevent registration prior to the start of registration for each semester;
- register for classes each semester on the date appropriate for class standing as set forth by the Registrar;
- be responsive to communication from Cedar Crest College, including advisors and the 4YG coordinator;
- officially declare a Genetic Engineering and Biotechnology major in the first semester. If a change of major is requested after the first semester, the ability to sign a new 4YG contract is not guaranteed.
- complete the following and all other Genetic Engineering and Biotechnology major requirements:
  - Earn a minimum 2.0 cumulative GPA and 2.0 GPA in major coursework.
  - Earn a C- or better in all courses taken for major requirements.
  - Earn a C- or better in all prerequisite courses before proceeding to subsequent courses.
  - Complete freshman core courses during the first year of enrollment; sophomore core courses during the second year of enrollment; BIO 350 in third fall semester; and BIO 356 in the fourth fall semester
  - Complete at least 4 credits toward the elective requirement prior to the final semester.
  - Begin the BIO 335, 336, 345 sequence in the fall of junior year
  - Complete the CHE 111, 112, 205, 206 sequence before the junior year.
  - Begin the PHY 104, 105 sequence no later than fall of junior year.
  - Complete MAT 141, 142 sequence before the junior year.
  - Abide by all other departmental policies and successfully meet all other graduation requirements.

The 4YG does not guarantee that courses will be offered at a particular time or on particular days, nor can it assure graduation in four years if accreditation agencies require immediate curricular changes. This agreement pertains only to the catalog specified; if major requirements change and the student elects to follow the newer requirements, this contract is void.

If a student meets all of the degree/program requirements but cannot graduate in four years because a course or courses are not available, the student will meet with her advisor as soon as the problem is discovered to discuss options for completion. These options could include a course substitution, an independent study, or permission to enroll in the course in a subsequent semester at no tuition cost to the student.

Required Meeting Schedule:

	Semester 1	Semester 2	Semester 3	Semester 4
Beginning of Semester	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator
Prior to registration	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator
	Semester 5	Semester 6	Semester 7	Semester 8
Beginning of Semester	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator
Prior to registration	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator	____ Advisor ____ 4YG Coordinator

I agree to the stipulations set forth in this agreement.

Student Signature	Date	ID Number	Entry Term
Advisor Signature	Date	4YG Coordinator Signature	Date

**FALL 2020**

Course	Cr	Title	✓
BIO 123	4	Foundations in Biology	
CHE 111	4	Chemical Principles	
MAT 141	3	Calculus I	
FYS ____	3	First Year Seminar	
CCC 101	0.5	College Life	

**SPRING 2021**

Course	Cr	Title	✓
BIO 124	4	Principles of Cell and Molecular Biology	
CHE 112	4	Chemical Equilibrium and Analysis	
MAT 142	3	Calculus II	
WRI 100	3	College Writing	
CCC 102	0.5	Exploring Your Future	

**FALL 2021**

Course	Cr	Title	✓
BIO 239	4	Animal Ecology, Development, and Evolution	
ETL 235	3	Ethical Life	
CHE 205	4	Organic Chemistry I	
_____	3	Humanities LAC course	

**SPRING 2022**

Course	Cr	Title	✓
BIO 231	4	Genetics	
CHE 206	4	Organic Chemistry II	
CCC 20X	3	Sophomore Expedition	
_____	3	Humanities LAC course	
_____	1-4	elective***	

**FALL 2022**

Course	Cr	Title	✓
BIO 350	2	Junior Colloquium	
PHY 104	4	College Physics I	
_____	3	Social Science LAC course	
_____	3	Art LAC course	
BIO ____	1.5	Genetic Engineering minilab*	
_____	1-4	elective***	

**SPRING 2023**

Course	Cr	Title	✓
BIO ____	1.5	Genetic Engineering minilab*	
_____	3-4	Genetic Engineering elective**	
PHY 105	4	College Physics II	
_____	3	Art LAC course	
_____	1-4	elective***	

**FALL 2023**

Course	Cr	Title	✓
BIO 356	3	Science, Ethics, and Society	
BIO 335	4	Molecular Genetics I	
_____	3-4	Genetic Engineering elective**	
CHE 307	4	Biochemistry I	

**SPRING 2024**

Course	Cr	Title	✓
BIO 336	4	Molecular Genetics II	
BIO 345	3	Advanced Recombinant DNA	
_____	3-4	Genetic Engineering elective **	
_____	1-4	elective***	

\* Choose two courses for a total of 3 credits from: BIO 341, 343, 344, or 349.

\*\*Choose 3 courses for a total of 11 credits from: BIO 227, 300, 317, 323, 327, 332, 339, or 348; CHE 308; FSC 348. At least 2 must contain a lab.

\*\*\*Electives must be included to ensure that the overall total number of credits reaches the 120 credits needed to complete a degree.

## Liberal Arts Curriculum (LAC) and College-Wide Requirements

<b>Natural Science (SCI):</b> 7 cr. total, one must be a lab-based course
1. BIO 123
2. BIO 124
<b>Arts (ART):</b> 6 cr. total, one must be a 3 cr. course
1. _____
2. _____
<b>Mathematics &amp; Logic (ML):</b> 6 cr. total, one must be a MAT course
1. MAT 141
2. MAT 142
<b>Ethics (ETH):</b> 1 course, 3 cr.
1. ETL 235
<b>Technology:</b>
1. BIO 231, 239, 350, and 356
<b>Oral Presentation:</b>
1. BIO 124, 239, 350, and 356

<b>Writing (WRI1, WRI2):</b> 2 courses, 6 cr. total
1. WRI 100
2. BIO 356
<b>Humanities (HUM):</b> 2 courses, 6 cr. total
1. _____
2. _____
<b>Social Science (SS):</b> 2 courses, 6 cr. total
1. _____
2. _____
<b>Global Studies (GS):</b> 1 course, 3 cr.
1. CCC 201
<b>Information Literacy:</b>
1. BIO 231, 239, 350, and 356