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| USC SCHOOL | Keck School of Medicine of USC |
| ACADEMIC DEPARTMENT | Translational Genomics |
| GRADUATE PROGRAM | Translational Biotechnology |
| POST CODE | 1685 |
| TERM EFFECTIVE DATE | Fall 2021 |

PROGRAM DESCRIPTION

A brief description of the graduate program.

This program combines a unique curriculum and distinctive practical training that exposes students to biotechnology and its applications in translating genomic and molecular insights into developing novel therapies and precision medicine. Drawing strength from the Keck School of Medicine faculty's education, research, and practice expertise, this program educates students on approaches used in the academic research, biotechnology, and medical sciences industries. The program is ideal for those who are passionate about biomedical sciences and would like a career in biotechnology beyond laboratory research.

COMMON BACHELOR DEGREE PROGRAM PATHWAYS

A list of common bachelor's degrees that undergraduate students pursue in advance of pursuing a progressive degree option with this graduate program. Some programs are restricted to certain majors while others are open to all students.

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| Biological Sciences, Biochemistry, Human Biology, Neuroscience | |
| Non-majors who complete 6 bioscience courses are eligible. | |

PREPARATORY UNDERGRADUATE COURSES

A list of courses at the undergraduate level that prepare students for the graduate program. Required coursework is listed first, followed by recommended courses. If not applicable, this section will be blank.

| Dept. Prefix - Course # | Course Title | Required or Recommended | Units |
|--------------------------------|---|--------------------------------|--------------|
| BISC 220, or | General Biology: Cell Biology and Physiology | Required, or | 4, or |
| BISC 221 | Advanced General Biology: Cell Biology and Physiology | Required | 4 |
| BISC 320 | Molecular Biology | Recommended | 4 |
| BISC 325 | Genetics | Recommended | 4 |
| BISC 330 | Biochemistry | Recommended | 4 |

UNDERGRADUATE COURSES USED TO REDUCE GRADUATE LEVEL UNITS

A list of undergraduate level courses that may be used to reduce the number of graduate level units required for the graduate program. If there are none, that is specified instead.

| Dept. Prefix - Course # | Course Title | Units |
|-------------------------|--------------|-------|
| | NONE | |

CORE GRADUATE PROGRAM REQUIREMENTS (# units required)

A list of all required graduate courses for the graduate program. None of these courses may be used toward satisfying undergraduate degree requirements.

If special exceptions for any of these courses are made by the academic department, the course # is marked with an asterisk () and the exception is explained in the "Department Notes" section at the end of this course plan template.*

| Dept. Prefix - Course # | Course Title | Units |
|-------------------------|--|-------|
| TRGN 536* | Biotechnology Primer | 4 |
| TRGN 537 | Target and Pathway Discovery | 4 |
| TRGN 538 | Seminar in Translational Biotechnology | 2 |
| TRGN 539 | Translational Biotechnology Practicum | 4 |
| TRGN 540 | Translational Biotechnology Capstone Preparation | 1 |
| TRGN 541 | Translational Biotechnology Capstone Defense | 2 |
| TRGN 543 | Biotechnology Entrepreneurship and Commercialization I | 2 |

PRE-APPROVED ELECTIVE COURSEWORK

Elective coursework is approved at the discretion of the academic department. Note the following details about the total number and units required of elective coursework.

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|-----|--|
| 3-5 | TOTAL ELECTIVE COURSES REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE |
| 9 | TOTAL ELECTIVE UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE |

TOTAL UNIT COUNTS AND REQUIRED GRADUATE UNITS

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|----|--|
| 28 | TOTAL UNITS REQUIRED FOR THE TRADITIONAL GRADUATE DEGREE |
| 0 | TOTAL GRADUATE UNITS THAT MAY BE WAIVED (IF ANY) |
| 28 | MINIMUM NUMBER OF GRADUATE UNITS THAT MUST BE AT THE 500 LEVEL OR ABOVE |

NOTES FROM THE DEPARTMENT

This section highlights any unique considerations, exceptions, or requirements for the graduate program. If a program has specific restrictions (courses, majors, etc.), they are detailed below.

TRGN 536 may be replaced with appropriate electives for students demonstrating mastery of course material.

Axel Schönthal, PhD

Name of Authorizing Master's Program Dean

April 7, 2021

Date Approved

Associate Dean for Biomedical Master's Programs

Authorizing Dean's Title