# Transfer Guide

**Lee College & UHD**

**Bachelor of Science in Biology with Concentration in Microbiology**

**2012-2013**

Students pursuing a Bachelor of Science degree in Biology with a Concentration in Microbiology at the University of Houston-Downtown are strongly encouraged to complete an Associate degree before transferring to UHD. The Associate degree provides a solid foundation through the traditional liberal arts education, and Associate degree core curriculum courses taken at Lee College will transfer to UHD. Studies indicate students who complete an Associate degree are more likely to successfully complete a Bachelors degree.

## General Education Core (30 hours)

### Lee College

| Written Communication (6 hours) | 010 |
| ENGL 1301 English Composition I |
| ENGL 1302 English Composition II |

### UHD

| Written Communication (6 hours) | 010 |
| ENG 1301 Composition I |
| ENG 1302 Composition II |

### Oral Communication (3 hours) | 011 |

Select one of the following:

- **SPCH** 1311 Introduction to Speech Communication
- **SPCH** 1315 Principles of Public Speaking
- **SPCH** Interpersonal Communication
- **SPCH** 1321 Business & Professional Communication*

Any course taken to complete this core component not listed above will satisfy the requirement at UHD.

For a complete list of all fully transferable Lee College Communication courses and options check the 2012-2013 Catalog.

### Mathematics (4 hours) | 020

See List of Math courses

### Natural Science (8 hours) | 030

**Note:** Eight hours of lab sciences for science majors in the same natural science* approved by the CMS department advisor. BIOL, CHEM, GEOL, or PHYS

### Humanities (3 hours) | 040

For a complete list of all fully transferable Lee College Humanities core course options check the 2012-2013 Catalog.

**NOTE:** Students should consider taking a sophomore literature course.

### UHD

**General Education Core (30 hours)**

**Common Core Requirements**

| Written Communication (6 hours) | 010 |
| ENG 1301 Composition I |
| ENG 1302 Composition II |

### Oral Communication (3 hours) | 011

Select one of the following:

- **COMM** 1304 Introduction to Speech Communication
- **COMM** 1306 Beginning Public Speaking
- **COMM** 2309 Interpersonal Communication
- **COMM** 3306 Business & Professional Speech Comm

For a complete list of all fully transferable UHD Communication courses and options check the 2012-2013 Catalog.

### Mathematics (4 hours) | 020

See List of Math courses

### Natural Science (8 hours) | 030

**Note:** Eight hours of lab sciences for science majors in the same natural science* approved by the CMS department advisor. BIOL, CHEM, GEOL, MBIO, or PHYS

### Humanities (3 hours) | 040

Any literature class
class to meet future prerequisites.

**Visual and Performing Arts (3 hours) 050**

Select one of the following:
- ARCH
- ARTS
- DRAM
- MUSI
- ART
- DRA
- MUS

**American History (6 hours) 060**

- HIST 1301 History of the U.S. to 1877
- HIST 1302 History of the U.S. Since 1877
- HIST 2301 History of Texas

(Select 6 hours with 3 hours from U.S. History)

**Government (6 hours) 070**

- GOVT 2301 American Government I
- GOVT 2302 American Government II
- POLS 2303 United States Government I
- POLS 2304 United States Government II

**Social/Behavioral Science (3 hours) 080**

Select one of the following:
- GEOG 1303 World Regional Geography
- PSYC 2301 Introduction to Psychology
- SOCI 1301 Introductory to Sociology
- GEOG 1302 World Geography
- PSY 1303 Introduction to Psychology
- SOC 1303 Principles of Sociology

Any course taken to complete this core component not listed above will satisfy the requirement at UHD.

For a complete list of all fully transferable Lee College Social/Behavioral courses and options check the 2012-2013 catalog.

**Kinesiology (1 hour) 090**

Any One hour KINE course

For a complete list of all fully transferable Lee College KINE course options check the 2012-2013 Lee College Catalog.

**Computer Literacy (4 hours)**

See Basic Mathematics and Science List

**Technical Writing (3 hours)**

A transfer student who has successfully completed all of the common core requirements at Lee College or another institution of higher education will satisfy all the UHD common core requirements. If not all of the common core requirements have been completed prior to the transfer, each core course transferred will be credited and will satisfy the corresponding common core requirements at UHD. Remaining UHD Common Core requirements must be satisfied. All prerequisites for UHD courses must be met.

Courses not listed on this sheet that satisfy core curriculum components (see italicized number) satisfy the equivalent component at the transferring institution or as free elective.
Select one of the following:

**ENG 3302 Business and Technical Report Writing**

**ENG 3325 Medical Writing**

**ENG 3326 Proposal Writing**

**ENG 3329 Environmental Writing**

**ENG 4306 Science Writing**

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**Basic Science and Math (43 hour)**

**MATH 2413 Calculus I with Analytical Geometry (fulfills core)**

**COSC 1436 Programming Fundamentals I (fulfills Core)**

**BIOL 1406 General Biology I (fulfills Core)**

**BIOL 1407 General Biology II (fulfills Core)**

**CHEM 1411 General Chemistry I**

**CHEM 1412 General Chemistry II**

**BIOL 2421 Microbiology**

**PHYS 1401 College Physics I: Mechanics and Heat**

**PHYS 1402 College Physics II: Sound, Electricity, Magnetism, Light, and Modern Physics**

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**Basic Science and Math (43 hour)**

**MATH 2411 Calculus I for the Life Sciences (fulfills core)**

**MATH 2412 Calculus II for the Life Sciences (fulfills core)**

**STAT 3311 Statistical Analysis for Natural Science**

**CS 1410 CS I-Introduction to Computer Science with C++ (fulfills Core)**

**BIOL 1301/1101 General Biology I w/Lab (fulfills Core)**

**BIOL 1302/1102 General Biology II w/Lab (fulfills Core)**

**CHEM 1307/1107 General Chemistry I**

**CHEM 1308/1108 General Chemistry II**

**MBIO 2305/2105 General Microbiology w/Lab**

**PHYS 1307/1107 General Physics I w/Lab**

**PHYS 1308/1108 General Physics II w/Lab**

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**Biology Core Courses (19 - 21 hours)**

**BIOL 3303/3103 General Genetics w/Lab**

**CHEM 3301/3201 Organic Chemistry w/Lab**

**CHEM 4340/4140* General Biochemistry I (*lab optional)**

**BIOL 3306 Biological Evolution or**

**BIOL/GEOL 4301 Evolution of the Earth & its Inhabitants**

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**One of the following 2 courses**

**BIOL 4210 Biology Seminar**

**MBIO 4210 Microbiology Seminar**

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**One of the following 5 courses**

**BIOL 3300 Undergraduate Research**

**BIOL 4230 Advanced Laboratory in Cell & Molecular Biology**

**BIOL 4232 Cell Biology Laboratory**

**BIOL 4360 Environment Laboratory & Field Studies**

**^BIOL 4399 Senior Honors Thesis**

**^Enrollment in Honors Program Required**

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**Courses for Concentration (20 hours)**

****MBIO 3320 Virology**

****MBIO 4320/4120 Immunology**

****MBIO 4340/4140 Medical Microbiology**

**Required course for Concentration**
BIOL 4220 Introduction Genomic & Bioinformatics
MBIO 3340 Environmental Microbiology
CHEM 4342 General Biochemistry II
MBIO 4390 Microbial Genetics
BIOL 2390 - 4390 Special Topics in Biology
BIOL 4310/4110 Parasitology
MBIO 4310 Microbial Biotechnology
MBIO 3350/3150 Biology of Fungi

Approved Upper Level Electives (3 - 5 hours)
Electives must be approved by your faculty advisor and/or program coordinator.

120 Hours Required

Courses taken at Lee College do not transfer as Upper Level credits.

ADDITIONAL REQUIREMENTS - May be satisfied by requirements above
• ONE ETHICAL AND MORAL ISSUES COURSE - See NS website for eligible courses
• TWO WRITING SKILLS COURSES - Satisfied by degree requirements
• ONE WORLD COMMUNITY COURSE - See NS website for eligible courses
  ENG 2301, 2302, 2313, or 2314 will satisfy both the Sophomore Lit and World community requirements.
• ONE NONVERBAL ANALYTICAL SKILLS COURSE - Satisfied by degree requirements.

Check with your advisor about how requirements from the Associate of Arts, the Associate of Science, and whether requirements from the Associate of Applied Science may be applied.

For a complete list of all Academic Requirements and criteria for the College of Sciences and Technology, Natural Sciences Department, located at 813-North, call 713-221-8015, or visit the UHD web site at www.uhd.edu/sciences/ns

Revised 9/18/12