## Transfer Guide

### WCJC & UHD

**Bachelor of Science in Biology**

**Concentration in Microbiology**

**2012-2013 Catalog**

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

<table>
<thead>
<tr>
<th>General Education Core (30 hours)</th>
<th>General Education Core (30 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common Core Requirements</strong></td>
<td><strong>Common Core Requirements</strong></td>
</tr>
<tr>
<td><strong>WCJC</strong></td>
<td><strong>UHD</strong></td>
</tr>
<tr>
<td>Written Communication (6 hours)</td>
<td>Communications (9 hours)</td>
</tr>
<tr>
<td>ENGL 1301 Composition I</td>
<td>ENG 1301 Composition I</td>
</tr>
<tr>
<td>ENGL 1302 Composition I</td>
<td>ENG 1302 Composition II</td>
</tr>
<tr>
<td>Oral Communication (3 hours)</td>
<td>Oral Communication (3 hours)</td>
</tr>
<tr>
<td>SPCH 1315 Public Speaking</td>
<td>COMM 1306 Beginning Public Speaking</td>
</tr>
<tr>
<td>Mathematics (4 hours)</td>
<td>Mathematics (4 hours)</td>
</tr>
<tr>
<td>See Basic Mathematics and Sciences List</td>
<td>See Basic Mathematics and Sciences List</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natural Science (8 hours)</th>
<th>Natural Science (8 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Eight hours of lab sciences for science majors in the same natural science* approved by the CMS department advisor.</td>
<td>Note: Eight hours of lab sciences for science majors in the same natural science* approved by the CMS department advisor.</td>
</tr>
<tr>
<td>BIOL, CHEM, GEOL, or PHYS</td>
<td>BIOL, CHEM, GEOL, or PHYS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities (3 hours)</th>
<th>Humanities (3 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For a complete list of all fully transferable WCJC Humanities core course options check the 2012-2013 Catalog.</td>
<td>Any literature class</td>
</tr>
<tr>
<td>NOTE: Students should consider taking a sophomore literature class to meet future prerequisites.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Visual and Performing Arts (3 hours)</th>
<th>Visual &amp; Performing Arts (3 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 3 hours from one of the following:</td>
<td>Select 3 hours from one of the following:</td>
</tr>
<tr>
<td>ARTS, DANCE, DRAM or MUSI</td>
<td>ART, DRA or MUS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>American History (6 hours)</th>
<th>US History (6 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1301 U.S. History I</td>
<td>HIST 1305 United States History to 1877</td>
</tr>
<tr>
<td>HIST 1302 U.S. History II</td>
<td>HIST 1306 United States History after 1877</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Government (6 hours)</th>
<th>Political Science (6 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT 2301 American, National and State Government: Constitutions, Federalism and Participation</td>
<td>POLS 2303 United States Government I</td>
</tr>
<tr>
<td>GOVT 2302 American, National and State Government: Institutions, Rights and Public Policies</td>
<td>POLS 2304 United States Government II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social/Behavioral Science (3 hours)</th>
<th>Social/Behavioral Science (3 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
<td>Select one of the following:</td>
</tr>
<tr>
<td>ANTH 2351 Cultural Anthropology</td>
<td>ANTH 2302 Cultural Anthropology</td>
</tr>
<tr>
<td>GEOG 1303 World Geography</td>
<td>GEOG 1302 World Geography</td>
</tr>
<tr>
<td>PSYC 2301 Introduction to General Psychology</td>
<td>PSY 1303 Introduction to Psychology</td>
</tr>
<tr>
<td>SOCI 1301 Introduction to Sociology</td>
<td>SOCI 1303 Introduction to Sociology</td>
</tr>
</tbody>
</table>
listed above will satisfy the requirement at UHD. For a complete list of all the Social and Behavioral Science core courses options check the WCJC 2011-2012 catalog.

Kinesiology (1 hour) 090
Check the WCJC 2012-2013 catalog for a complete list of all kinesiology course options.

Computer Literacy (4 hours)  
See List of Computer Science Courses

A transfer student who has successfully completed all of the common core requirements at WCJC 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 electives.

Technical Writing (3 hours)
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

Basic Science and Math (43 hour)
MATH 2413 Calculus I (fulfills core)
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
CHEM 1411 General Chemistry I
CHEM 1307/1107 General Chemistry I (fulfills Core)
CHEM 1412 General Chemistry II
CHEM 1308/1108 General Chemistry II
MBIO 2305/2105 General Microbiology w/Lab

Note: If a grade of "B" or better is earned in BIOL 2420 at WCJC, the Department at UHD will award credit for MBIO 2305/2105 General Microbiology w/Lab.

PHYS 1401 College Physics I
PHYS 1402 College Physics II
PHYS 1307/1107 General Physics I w/Lab
PHYS 1308/1108 General Physics II w/Lab

Biology Core Courses (19 - 21 hours)
BIOL 3303/3103 General Genetics w/Lab
CHEM 3301/3201 Organic Chemistry with/Lab
CHEM 4340/4140* General Biochemistry I (*lab optional)
BIOL 3306 Biological Evolution or
BIOL/GEOL 4301 Evolution of the Earth & its Inhabitants

One of the following 2 courses
BIOL 4210 Biology Seminar
MBIO 4210 Microbiology Seminar

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

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 Wharton County Junior 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