BEHAVIORAL AND BIOLOGICAL SCIENCES

The study of Behavioral and Biological Sciences investigates the intersections between biochemistry, psychology, genetics, neurobiology, behavior, immunology and anthropology. Students choosing the Bachelor of Arts, or Bachelor of Science, in Behavioral and Biological Sciences will learn the foundations of both biological and psychological sciences as they apply to the study of human and animal behavior, as well as ethical considerations and implications of research. The student experience will include a selection of lectures and laboratory courses to develop foundational understanding, hands-on experimental understanding and critical thinking skills. Students trained in these areas will be prepared for business and research positions, for pursuing advanced degrees in medical school, pharmacy or graduate programs and will contribute in the following areas:

- Health and wellness, making a direct and significant impact in areas in which citizens have received “poor marks.”
- Health and the environment, indirectly, by working in research and within industry to change manufacturing processes and improve products.
- Leadership in business, industry and politics.
- K-12 education through service learning and outreach.

Please visit the Behavioral and Biological Sciences (https://umdearborn.edu/casl/undergraduate-programs/areas-study/behavioral-biological-sciences) webpage for more information.

Dearborn Discovery Core Requirement

The minimum GPA for the program is 2.0. In addition, the DDC permits any approved course to satisfy up to three credit hours within three different categories. Please see the General Education Program: The Dearborn Discovery Core (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core) section for additional information.

Foundational Studies

Written and Oral Communication (GEWO) – 6 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gewo)

Upper Level Writing Intensive (GEWI) – 3 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gewi)

Quantitative Thinking and Problem Solving (GEQT) – 3 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#geqt)

Critical and Creative Thinking (GECC) – 3 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gecc)

Areas of Inquiry

Natural Science (GENS) – 7 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gens)

- Lecture/Lab Science Course
- Additional Science Course

Social and Behavioral Analysis (GESB) – 9 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gesb)

Humanities and the Arts (GEHA) – 6 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#geha)

Intersections (GEIN) – 6 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gein)

Capstone

Capstone (GECE) – 3 Credits (http://catalog.umd.umich.edu/undergraduate/general-information/general-education-program-dearborn-discovery-core/#gece)

Foreign Language Requirement

Complete a two-semester beginning language sequence.

Ancient Greek I and II MCL 105 and MCL 106
Arabic I and II ARBC 101 and ARBC 102
Armenian I and II MCL 111 and MCL 112
Chinese I and II CHIN 101 and CHIN 102
French I and II FREN 101 and FREN 102
German I and II GER 101 and GER 102
Latin I and II LAT 101 and LAT 102
Spanish I and II SPAN 101 and SPAN 102

Prerequisites to the Major

Not counted in the minimum 40 credit hours required for the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>PSYC 101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Intro Org and Environ Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 140</td>
<td>Intro Molec &amp; Cellular Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 134</td>
<td>General Chemistry IA</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 136</td>
<td>General Chemistry IIA</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 225</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 226</td>
<td>Organic Chemistry II</td>
<td>3</td>
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Major Requirements

Minimum of 40 credit hours upper level required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BCHM/BIOL/ CHEM 370</td>
<td>Principles of Biochemistry</td>
<td></td>
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<tr>
<td>OR BCHM 470 and BCHM 471</td>
<td></td>
<td></td>
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<tr>
<td>BIOL 301</td>
<td>Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 306</td>
<td>General Genetics</td>
<td></td>
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</tbody>
</table>
## Behavioral and Biological Sciences

**BIOL/BCHM 474**  
Molecular Biology

### NEUROSCIENCE
- **BIOL 350** Introduction to Neurobiology

### BIOLOGY & EVOLUTION: One class from:
- **ANTH 331** Human Evolution
- **BIOL 419** Behavior and Evolution
- **BIOL 491** Capstone Course in Biology

### ANIMAL BEHAVIOR: One class from:
- **ANTH 336** Introduction to Primates
- **BIOL 353** Ornithology
- **BIOL 456** Behavioral Biology
- **PSYC 372** Animal Behavior
- **PSYC 474** Animal Learning and Cognition
- **PSYC 488** Primatology Field Course

### PHYSIOLOGICAL PSYCHOLOGY: One class from:
- **BIOL 357** Human Physiology
- **PSYC 370** Physiological Psychology

### SENSATION & PERCEPTION
- **PSYC 463** Sensation and Perception

### COGNITION/LANGUAGE DEVELOPMENT: One class from:
- **PSYC 363** Cognitive Psychology
- **PSYC/LING 375** Psychology of Language
- **PSYC 461** Learning and Memory

### EPIDEMIOLOGY/HEALTH PSYCHOLOGY: One class from:
- **BIOL/MICR 380** Epidemiology
- **HPS 412** Principles of Epidemiology
- **PSYC 455** Health Psychology

### ETHICS IN RESEARCH
- **BBS 451** Ethics in Research

### STATISTICS: One class from:
- **PSYC 381** Prin of Stat and Exper Design
- **STAT 301** Biostatistics I

### EXPERIMENTAL PSYCHOLOGY:
- **PSYC 465** Experimental Psychology

### COMPUTER IN PSYCHOLOGY
- **PSYC 481** Computers in Psychological Res

### CAPSTONE
- **BBS 490** Bio and Beh Science Capstone

### NOTE:
At least 21 of the 40 upper level credit hours must be elected at UM-Dearborn.