



## B.S. DEGREE IN PHARMACEUTICAL SCIENCE Industry Concentration — Effective Fall 2023

| FRESHMAN YEAR         |   |         |  |   |         |
|-----------------------|---|---------|--|---|---------|
| Fall Semester         |   | Credits | Spring Semester  |   | Credits |
| ENG 101               | Written Communication I                     | 3       | ENG 102  | Written Communication II                                  | 3       |
| MAT 117               | Precalculus Mathematics I                   | 3       | HEA 200<br>PED 205   | Health Education or any 2 CH<br>Physical Education Course | 2       |
| <sup>1</sup> BIO 105  | Introduction to Biology I w/Lab             | 4       | BIO 106  | Introduction to Biology II                                | 4       |
| UNV 101               | The Individual and Life                     | 1       | <sup>1</sup> MAT 130   | Calculus I  | 3       |
| CHE 201               | General Chemistry and Qualitative Analysis  | 4       | CHE 202  | General Chemistry and Qualitative<br>Analysis II          | 4       |
| TOTALS                |   | 15      | TOTALS   |   | 16      |
| SOPHOMORE YEAR        |   |         |  |   |         |
| Fall Semester         |   | Credits | Spring Semester  |   | Credits |
| CHE 301               | General Organic Chemistry I                 | 4       | CHE 302  | General Organic Chemistry II                              | 4       |
| BIO 304               | Microbiology                                | 4       | HIS 106  | World Civilizations II                                    | 3       |
| PHY 201               | Introductory Physics I                      | 4       | HUM 201  | Humanities I  | 3       |
| PHY 215               | Introductory Physics I Lab                  | 1       | <sup>2</sup> SOC 205<br><sup>2</sup> PSY 203<br><sup>2</sup> PSY 308 | <sup>2</sup> Social Science Elective                      | 3       |
| COM 103               | Oral Communication                          | 3       | BIO 305  | Principles of Heredity                                    | 3       |
| TOTALS                |   | 16      | TOTALS   |   | 16      |
| JUNIOR YEAR           |   |         |  |   |         |
| Fall Semester         |   | Credits | Spring Semester  |   | Credits |
| BIO 224               | Human Anatomy and Physiology I w/Lab        | 4       | BIO 225  | Human Anatomy and Physiology II w/Lab                     | 4       |
| PHS 300               | Quantitative Lab Techniques                 | 2       | BIO 544  | Medical Microbiology                                      | 3       |
| NUR 320               | Scientific Writing for Health Professionals | 3       | PHS 317  | Pharmaceutical Analysis                                   | 3       |
| MAT 205               | Introduction to Statistics                  | 3       | PHS 516  | Biostatistics and Research Methods                        | 3       |
| PHS 312               | Drug Discovery, Design, and Development     | 3       | PHS 318  | Responsible Conduct of Research                           | 1       |
| TOTALS                |   | 15      | TOTALS   |   | 14      |
| Summer Session        |   | Credits |  |   |         |
| PHS 399               | Research Internship                         | 1       |  |   |         |
| SENIOR YEAR           |   |         |  |   |         |
| Fall Semester         |   | Credits | Spring Semester  |   | Credits |
| PHS 511               | Applied Biochemistry                        | 3       | PHS 414  | Introduction to Medicinal Chemistry                       | 4       |
| PHS 571               | Biopharmaceutics I                          | 3       | PHS 510  | Medical Immunology  | 2       |
| PHS 573               | Biopharmaceutics I Lab                      | 1       | PHS 572  | Biopharmaceutics II                                       | 3       |
| PHS 433               | General Pharmacology I                      | 3       | PHS 574  | Biopharmaceutics II Lab                                   | 1       |
| PHS 497               | Research Capstone                           | 0       | PHS 416  | Introduction to Drug Information                          | 3       |
| <sup>3</sup> Elective | Elective                                    | 2       | PHS 434  | General Pharmacology II                                   | 3       |
|                       |   |         | PHS 498  | Research Capstone   | 0       |
| TOTALS                |   | 12      | TOTALS   |   | 16      |
| TOTAL CREDIT HOURS    |   |         |  |   | 121     |

<sup>1</sup>HU students may elect to take Calculus I & II (MAT 151-152) instead of MAT 117 and MAT 130. Note that Precalculus Mathematics II (MAT 118), not Precalculus Mathematics I (MAT 117) is the prerequisite to Calculus I (MAT 151).

<sup>2</sup>Students may elect to take Introduction to Sociology (SOC 205), Introduction to Psychology (PSY 203), or Physiological Psychology (PSY 308). Note that Introduction to Psychology (PSY 203) is the prerequisite to Physiological Psychology.

<sup>3</sup>Students may elect to take any approved Pharmacy Elective (PHA 572, PHA 582, or PHA 587), Introduction to Computers (CSC 120), Principles of Marketing (MKT 305), or Sales Management (MKT 328). Note that Principles of Marketing (MKT 305) is a prerequisite to Sales Management.