

B.S. Degree in Pharmaceutical Science
Industry Concentration - Effective Fall 2021 - Spring 2023

FRESHMAN YEAR

Fall Semester		Credits	Spring Semester		Credits
ENG 101	Written Communication I	3	ENG 102	Written Communication II	3
¹ MAT 117	Precalculus Mathematics I	3	HEA 200	Health Education or any 2 CH Physical Education Course	2
BIO 105	Introduction to Biology I w/Lab	4	BIO 106	Introduction to Biology II w/Lab	4
UNV 101	University 101: The Individual and Life	1	¹ MAT 130	Calculus	3
CHE 201	General Chemistry and Qualitative Analysis I w/Lab	4	CHE 202	General Chemistry and Qualitative Analysis II w/Lab	4
Total Credit Hours:		15	Total Credit Hours:		16

SOPHOMORE YEAR

Fall Semester		Credits	Spring Semester		Credits
CHE 301	General Organic Chemistry I w/Lab	4	CHE 302	General Organic Chemistry II w/Lab	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	² SOC 205 ² PSY 203 ² PSY 308	² Social Science Elective	3
COM 103	Oral Communication	3	BIO 305	Principles of Heredity	3
Total Credit Hours:		16	Total Credit Hours:		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
PHA 300	Quantitative Lab Techniques	2	BIO 544	Medical Microbiology	3
NUR 320	Scientific Writing for Health Professionals	3	PHA 312	Drug Discovery, Design, and Development	3
MAT 205	Introduction to Statistics	3	PHA 317	Pharmaceutical Analysis	3
			PHA 318	Responsible Conduct of Research	1
			PHA 416	Biostatistics and Research Methods	3
Total Credit Hours:		12	Total Credit Hours:		17

Summer Semester

PHA 399	Research Externship	1			
Total Credit Hours:		1			

SENIOR YEAR

Fall Semester		Credits	Spring Semester		Credits
PHA 311	Physiological Chemistry	3	PHA 314	Medicinal Chemistry I	4
PHA 371	Biopharmaceutics I	3	PHA 310	Medical Immunology	2
PHA 373	Biopharmaceutics I Lab	1	PHA 372	Biopharmaceutics II	3
PHA 433	General Pharmacology I	3	PHA 374	Biopharmaceutics II Lab	1
PHA 499	Research Capstone	0	PHA 316	Principles of Drug Information	3
Elective	Elective Minimum of 2 CH**	2	PHA 434	General Pharmacology II	3
			PHA 499	Research Capstone	0
Total Credit Hours:		12	Total Credit Hours:		16

Total Credit Hours for the Curriculum a Minimum of: 121

¹HU students may elect to take Calculus I & II MAT 151-152 (the prerequisite to MAT 151 Calculus I is MAT 118); instead of MAT 117 and MAT 130.

²Students 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.

³Students 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.