# HEALTH SCIENCES, BACHELOR OF SCIENCE (564)

#### **Program Coordinator**

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The major in Health Sciences, requires 58-68 health sciences credit hours, including a required concentration ranging from 21-27 hours. The Bachelor of Science in Health Sciences is designed for students who are interested in pursuing a health and human services related career. The program is an interdisciplinary program with three primary purposes:

- 1. Allowing students with a general interest in Health Sciences to pursue a B.S. while obtaining a concentration in a specific area of Health and Human Services.
- 2. Permitting students to prepare for post-graduate or professional health sciences programs.
- 3. Providing an option for students with a health-related associate degree or appropriate Military Occupational Specialty (MOS) in a focused health area who wish to continue their education.

#### Concentrations

- Health Sciences Allied Health (AHAH)
- Preparatory Health Science (APHS)
- Health Services, Leadership & Management (ASLM)

Students pursuing the major are required to select one of the following concentrations: Preparatory Health Sciences, Health Services Leadership and Management, or Health Sciences Allied Health building on an Associate Degree or appropriate Military Occupational Specialty (MOS) in a focused health field (approved by the health science advisor). Students who transfer to WKU with an applied associate degree (e.g., Associate of Applied Science) from a health-related program and students with an appropriate MOS with American Council of Education (ACE) approved military credit receive a 12-hour waiver from the overall upper-level course requirement for the health science major; these students will need 23 hours in the major upper-division hour requirement.

Students must earn a "C" or better in each course in the major. Additionally, in accordance with university policy, an overall grade point average of 2.0 or better must be attained upon completion of required curriculum.

## Program Requirements (58-68 hours)

A baccalaureate degree requires a minimum of 120 unduplicated semester hours. More information can be found at www.wku.edu/ registrar/degree\_certification.php. (https://www.wku.edu/registrar/ degree\_certification.php)

Students who began WKU in the Fall 2014 and thereafter should review the Colonnade requirements located at: https://www.wku.edu/ colonnade/colonnaderequirements.php. (https://www.wku.edu/ colonnade/colonnaderequirements.php)

#### **Health Sciences Core**

Code	Title	Hours
HMD 211	Human Nutrition	3
PSY/PSYS 100	Introduction to Psychology	3

or PSY/PSYS 220	Introduction to Lifespan Developmental Psychology	
or PSY/PSYS 440	Abnormal Psychology	
Select one of the following	ng:	3-4
BIOL 113	General Biology	
BIOL 120 & BIOL 121	Biological Concepts: Cells Metabolism and Genetics and Biological Concepts: Cells, Metabolism, and Genetics Lab	
BIOL 131	Human Anatomy and Physiology	
Select one of the following	5	3-4
CHEM 105 & CHEM 106	Fundamentals of General Chemistry and Fundamentals of General	
	Chemistry Laboratory	
CHEM 109	Chemistry for the Health Sciences	
CHEM 116	Introduction to College Chemistry	
PHYS course		
AH/HIM 290	Medical Terminology	2
Select one of the following	ng:	3
PE 310	Kinesiology	
PE 311	Exercise Physiology	
PE 313	Motor Development	
PH 390	Wellness and Fitness Assessment	
NURS 335	Health Assessment	
MKT 220	Basic Marketing Concepts	
MKT 321	Consumer Behavior	
MKT 323	Services Marketing	
PR 255	Fundamentals of Public Relations	
PH 381	Public and Community Health	3
Select one of the following		3
PH 383	Biostatistics in the Health Sciences	
SOCL 300	Social Statistics	
BIOL 382	Introductory Biostatistics	
STAT 301	Introductory Probability and Applied Statistics	
PSY/PSYS 313	Statistics in Psychology	
MATH 183	Introductory Statistics	
PH 384	Introduction to Epidemiology	3
Select one of the following	-	3
PH 447	Human Values and the Health Sciences	
FACS 312	Professional Ethics for Family Life	
PHIL 322	Biomedical Ethics	
PHIL 323	Social Ethics	
MGT 305	Ethics and Critical Thinking	
SWRK 433	Ethical Issues and Dilemmas in Social Work	
LEAD 330	Leadership Ethics and Decision- Making	
HCA 340	Health Care Organization and Management	3
Select one of the following	ng:	3-4

HCA 446 & HCA 447	Health Care Informatics and Information Systems Laboratory	
BDAN 305	Data Modeling and Analysis	
CIS 321	Emerging Technologies with Artificial Intelligence	
HIM 330	Electronic Health Record Systems	
Select one of the following	ng:	2-3
HCA 441	Legal Aspects / Health Care	
HIM 225	Legal Issues in Health Information Management	
MGT 200	Legal Environment of Business	
MGT 301	Business Law	
Total Hours		37-41

One of the below-mentioned concentrations is required:

### **Preparatory Health Sciences Concentration**

Code	Title	Hours
Select 24-27 hours of the	following courses:	24-27
Biology:		
BIOL 120 & BIOL 121	Biological Concepts: Cells Metabolism and Genetics and Biological Concepts: Cells, Metabolism, and Genetics Lab <sup>1</sup>	
BIOL 122 & BIOL 123	Biological Concepts: Evolution, Diversity, and Ecology and Biological Concepts: Evolution, Diversity, and Ecology Lab	
BIOL 131	Human Anatomy and Physiology <sup>1</sup>	
BIOL 207 & BIOL 208	General Microbiology and General Microbiology Laboratory	
BIOL 224 & BIOL 225	Animal Biology and Diversity and Animal Biology and Diversity Lab <sup>1</sup>	
BIOL 231	Advanced Human Anatomy and Physiology	
Chemistry:		
CHEM 107 & CHEM 108	Fundamentals of Organic Chemistry	
	and Fundamentals of Organic Chemistry Laboratory	
CHEM 116	Introduction to College Chemistry <sup>1</sup>	
CHEM 120 & CHEM 121	College Chemistry I and College Chemistry I Laboratory	
CHEM 222 & CHEM 223	College Chemistry II and College Chemistry II Laboratory	
CHEM 304	Biochemistry for the Health Sciences	
CHEM 340 & CHEM 341	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM 342 & CHEM 343	Organic Chemistry II and Organic Chemistry II Laboratory	
Health Information Ma	nagement:	

HIM 291	Advanced Medical Terminolgy
HIM 292	Pharmacology and Laboratory Diagnostics
Hospitality Manageme	nt and Dietetics:
HMD 360	Advanced Nutrition
HMD 361	Life Stage Nutrition
Math:	
MATH 117	Trigonometry
MATH 136	Calculus I
Nursing:	
NURS 324	Pathophysiology for Nursing
NURS 337	Health Promotion and Disease Prevention
NURS 343	Mental Health Nursing
NURS 415	Complementary Health Care
Psychological Science	s:
PSYS 160	Introduction to Biopsychology
Public Health:	
PH 365	Human Sexuality
PH 464	Women's Health
PH 468	Sexuality Education
Physics:	
PHYS 201	College Physics I <sup>1</sup>
PHYS 231 & PHYS 232	Introduction to Physics and Biophysics I and Laboratory for Physics and Biophysics I <sup>1</sup>
PHYS 233 & PHYS 332	Laboratory for Physics and Biophysics II and Introduction to Physics and Biophysics II <sup>1</sup>
PHYS 255	University Physics I
& PHYS 256	and University Physics I Lab <sup>1</sup>
Total Hours	24-27

<sup>1</sup> Unduplicated.

# Health Services Leadership & Management Concentration

Code	Title	Hours
Select 24-27 hours from t	he following:	24-27
Counselor Education:		
CNS 110	Human Relations	
CNS 432	Helping Skills	
Communication:		
COMM 348	Interpersonal Communication	
Exercise Science:		
EXS 455	Exercise and Aging	
Family and Consumer	Sciences:	
FACS 310	Management of Family Resources	
FACS 311	Family Relations	
FACS 395	Child and Family Stress	
FACS 491	Seminar in Family Economics	

Health Information Management:

FACS 497	Family Home Visiting
Finance:	
FIN 161	Personal Finance
Gerontology:	
GERO 100	Introduction to the Aging Experience
GERO 461	Person-Centered Dementia Management
Health Care Administ	ration:
HCA 345	Long-Term Care Administration
HCA 347	International Comparisons of Health Care Systems
HCA 353	Quality and Patient Safety in Long- Term Care
HCA 446	Health Care Informatics
& HCA 447	and Information Systems Laboratory
Health Information M	anagement:
HIM 100	Health Data Content and Structure
HIM 252	Healthcare Payment Systems
HIM 291	Advanced Medical Terminolgy
HIM 292	Pharmacology and Laboratory Diagnostics
Hospitality Managem	ent and Dietetics:
HMD 360	Advanced Nutrition
HMD 367	Nutrition in Aging
HMD 368	Dietary and Herbal Supplements
Interdisciplinary Stud	ies:
IDST 369	Career Related Field Experience
IDST 390	Applications of Interdisciplinary Studies
IDST 395	Investigative Methods in Interdisciplinary Studies
Leadership:	
LEAD 200	Introduction to Leadership Studies
LEAD 300	Leadership Theory and Application
LEAD 325	Leading Change
LEAD 330	Leadership Ethics and Decision- Making <sup>1</sup>
Management:	
MGT 200	Legal Environment of Business <sup>1</sup>
MGT 301	Business Law <sup>1</sup>
MGT 305	Ethics and Critical Thinking <sup>1</sup>
MGT 333	Management of Nonprofit Organizations
Public Health:	
PH 100	Personal & Public Health
PH 165	Drug Abuse
PH 261	Foundations of Public Health Education
PH 365	Human Sexuality
PH 410	Global Perspectives on Population Health
PH 443	Health and Aging

PH 444	Death, Dying and Bereavement	
PH 464	Women's Health	
PH 467	Drug Abuse Education	
PH 468	Sexuality Education	
Psychological Scienc	es:	
PSYS 333	Cognitive Psychology	
PSYS 423	Psychology of Adult Life and Aging	
PSY/PSYS 440	Abnormal Psychology	
Sociology:		
SOCL 342	Aging in Society	
SOCL 440	Sociology of Health and Illness	
Special Education:		
SPED 200	The Culture of Disability	
Social Work:		
SWRK 101	Foundations of Human Services	
SWRK 300	Diversity and Social Welfare	
SWRK 330	Human Behavior in the Social Environment	
SWRK 326	Services for the Older American	
SWRK 357	Case Management	
SWRK 375	Social Work Practice I	
SWRK 437	Military Social Work	
Other courses with a	dvisor approval	
Total Hours		24-27

<sup>1</sup> Unduplicated.

#### Health Sciences Allied Health Concentration – (Health Related A.S. / A.A. / A.A.S. or MOS to Health Sciences Allied Health B.S. Concentration)

An associate degree in a focused health area or an appropriate military occupational specialty (MOS) in a focused health area with American Council of Education (ACE) approved military credit may fulfill the concentration requirement with the approval of a Health Sciences academic advisor. Students with a completed A.A. or A.S. degree from a KCTCS college will be considered to have completed the WKU Colonnade general education requirements. Twenty-one credit hours is required within the concentration.

In addition to completing the Health Sciences core, students need to fulfill all other appropriate major and degree requirements.

### Finish in Four Plans Health Sciences Preparatory Concentration

First Year				
Fall	Hours	Spring	Hours	
ENG 100		3 COMM 145		3
HIM 290 or AH 290		2 HIST 101 or HIST	102	3
PSY 220, PSYS 220, PSY 100, or PSYS 100		3 Colonnade: Arts & Humanities	2	3
MATH 116		3 Major/Minor/Elec OR World Langua needed)		3
BIOL 120 & BIOL 121		4 Major/Minor/Elec	tive	3
		15		15

#### Second Year

Fall	Hours	Spring	Hours
ENG 200		3 Major/Minor/Elective	3
HMD 211		3 Major/Minor/Elective	3
CHEM 109 or CHEM 116	Э	-4 Major/Minor/Elective	3
Colonnade: Connections (Social & Cultural)		3 ENG 300	3
Major/Minor/Elective		3 PH 383, SOCL 300, BIOL 382, STAT 301, PSY 313, PSYS 313, or MATH 183	3
	15-	16	15
Third Year			
Fall	Hours	Spring	Hours
PE 310, PE 311, PE 313, PH 390, NURS 335, MKT 220, MKT 323, or PR 255		3 HCA 441, MGT 200, MGT 301, or HIM 225	2-3
PH 381		3 HCA 340	3
PH 384		3 Major/Minor/Elective	3
Major/Minor/Elective		3 Major/Minor/Elective	3
Colonnade: Connections (Local to Global)		3 Major/Minor/Elective	3
		15	14-15
Fourth Year			
Fall	Hours	Spring	Hours
PH 447, HCA 247,		3 HCA 446	3-4
PHIL 322, MGT 305, or		& HCA 447	
SWRK 433		, BDAN 305, or CIS 321	
Major/Minor/Elective		3 Major/Minor/Elective	3
Major/Minor/Elective		3 Major/Minor/Elective	3
Major/Minor/Elective			0
		3 Major/Minor/Elective	3
Major/Minor/Elective		3 Major/Minor/Elective 3 Major/Minor/Elective	3

Total Hours 119-122

#### **Health Sciences Allied Health Concentration**

The Health Sciences Allied Health concentration is designed for students who have earned an associate degree in a focused health area or an appropriate military occupational specialty (MOS) in a focused health area with American Council of Education (ACE) approved military credit. In addition to completing the Health Sciences core, students need to fulfill all other appropriate major and degree requirements. Students should consult with an advisor in planning their four-year degree program.

While working on the Health related Associate degree at KCTCS or WKU, students are encouraged to complete the following courses as a foundation for the Health Sciences major. KCTCS Courses: i) NFS 101; ii. (PSY 110 or PSY 223); iii. (MATH 146 or 150 or higher); iv. (CHE 130 or 140 or PHY \*\*\*); v. (AHS 115 or CLA 131); and vi. (BIO 112/1121/1122/1123/1124, or BIO 114/115, or BIO 150/151, or BIO 135 or 137 or 139). Corresponding WKU Courses, if not completed at KCTCS: i. HMD 211; ii. (PSY 100 or PSYS 100); iii. (MATH 109 or MATH 116 or higher); iv. (CHEM 105/CHEM 106, or CHEM 109, or CHEM 116, or PHYS \*\*\*\*); v. (HIM 290 or AH 290); and (BIOL 113 or BIOL 120/BIOL 121 or BIOL 131). WKU Associate Degree seeking students are also encouraged to complete ENG 100 (FW-1) and Arts & Humanities (E-AH) in the first two years.

Third Year					
Fall	Hours	s	Spring	Hours	
PE 310, PE 311, PE 313, or PH 390		B	PH 383, SOCL 300, BIOL 382, STAT 301, PSY 313, PSYS 313, or MATH 183		3
PH 381		3 H	ICA 340		3
Upper Level Elective/ Major/Minor			Jpper Level Elective/ /lajor/Minor		9
		15			15
Fourth Year					
Fall	Hours	s	Spring	Hours	
HCA 441, MGT 200, MGT 301, or HIM 225			HCA 446 A HCA 447 , BDAN 305, or CIS 321		3-4
PH 384		F	PH 447, HCA 247, PHIL 322, PHIL 323, /IGT 305, or SWRK 433		3
Upper Level Elective/ Major/Minor			Jpper Level Elective/ /lajor/Minor		9
		14-15			15-16

Total Hours 59-61

#### Health Services Leadership and Management Concentration

First Vear

First Year					
Fall	Hours		Spring	Hours	
ENG 100		3	COMM 145		3
HIM 290 or AH 290		2	HIST 101 or HIST 102		3
PSY 220, PSYS 220, PSY 100, or PSYS 100		3	Colonnade - Arts & Humanities		3
MATH 116		3	Major/Minor/Elective or World Language (if needed)		3
BIOL 113		3	Major/Minor/Elective		3
BIOL 114		1			
		15			15
Second Year					
Fall	Hours		Spring	Hours	
ENG 200		3	Major/Minor/Elective		9
HMD 211		3	ENG 300		3
CHEM 105		3	PH 383, SOCL 300, BIOL 382, STAT 301, PSY 313, PSYS 313, or MATH 183		3
CHEM 106		1			
Connections - Social & Cultural		3			
Major/Minor/Elective		3			
		16			15
Third Year					
Fall	Hours		Spring	Hours	
PE 310, PE 313, PH 390, MKT 220, MKT 321, MKT 323, or PR 255		3	HCA 441, MGT 200, MGT 301, or HIM 225		2-3
PH 381		3	HCA 340		3
PH 384		3	Major/Minor/Elective		9
Major/Minor/Elective		3			
Connections - Local to Global		3			
		15			14-15

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Fourth Year Fall Hours

Fall	Hours	Spring	Hours	
PH 447, HCA 247,		3 HCA 446		3-4
PHIL 322, PHIL 323,		& HCA 447		
MGT 305, or SWRK 433	or SWRK 433 , BDAN 305, or		or	
		CIS 321		
Major/Minor/Elective		12 Major/Minor/El	ective	12
		15	1	5-16

Total Hours 120-122