

Health Sciences

The Whitworth Health Sciences Department offers majors in health science (for both a B.S. and a B.A.), community health, athletic training, and nursing.



The mission of the Whitworth Health Sciences Department is to equip its graduates to serve humanity through study of the form and function of the human body and the body's connection to health and wellness. Through a curriculum that integrates theory and practice, graduates will be able to appreciate this relationship both critically and creatively and will learn to apply it to various health-related fields.

The learning outcomes of this major prepare graduates to...

- explain the form and function of the human body.
- explain various factors that make up holistic human health and wellness.
- identify their strengths and interests and demonstrate how these can be used to serve humanity.
- demonstrate appropriate strategies to communicate health and wellness concepts.
- demonstrate critical-thinking skills and the ability to access and evaluate health information and resources.
- articulate a worldview that integrates professional ethics with cultural competence and personal values.

Requirements for a Health Science Major, B.S. and B.A. (59)

Major Core Courses

BI 140	General Biology I: Genes, Cells and Evolution	4
CH 161 or CH 101	General Chemistry I Introduction to Chemistry	3
CH 161L or CH 101L	General Chemistry I Lab Introduction to Chemistry Lab	1
CH 181 or CH 102	General Chemistry II Bioorganic Chemistry	3
CH 181L or CH 102L	General Chemistry II Lab Bioorganic Chemistry Lab	1
HS 162	Personal Health	3
HS 179	Foundations of Health Sciences	3
HS 220	Anatomy and Physiology I	4
HS 221	Anatomy and Physiology II	4
HS 261	Community Health	3
HS 315	Nutrition	3
HS 320	Structural and Mechanical Kinesiology	4

HS 326	Exercise Physiology	4
HS 326L	Exercise Physiology Lab	0
HS 365WH	Evidence Based Health Science	3
HS 498	Senior Seminar	3
One credit of internship is required (390 or 490)		1
HS 390	Internship	
HS 490	Internship	
Students must take a minimum of twelve credits from major electives		12

Major Electives

- Classes identified in the catalog as recommended for “Preparation for Health Professions” may also qualify as major electives
- Courses should be selected in consultation with advisor, and based on post-graduate goals

Electives for B.S. in Health Science (must take a minimum of 12 credits)

BI 141	General Biology II:Organismal Diversity	4
BI 141L	General Biology II:Organismal Diversity Lab	0
BI 204	Medical Microbiology	4
BI 311	General Biochemistry	3
BI 350	Comparative Vertebrate Anatomy	4
BI 350L	Lab: Comparative Vertebrate Anatomy	0
BI 363	Genetics	4
CH 271	Organic Chemistry I	3
CH 271L	Organic Chemistry I Lab	1
CH 278	Organic Chemistry II	3
CH 278L	Organic Chemistry II Lab	1
CH 401	Biochemistry I	3
CH 401L	Biochemistry I Lab	1
CH 403	Biochemistry II	3
AT 334	Physical Examination of the Lower Extremities in Athletic Training	4
AT 334L	Lab: Lower Extremities in Athletic Training	0
AT 335	Physical Examination of the Upper Extremities in Athletic Training	4
AT 335L	Lab: Upper Extremities in Athletic Training	0
AT 432	Therapeutic Exercise	3
HS 390	Internship (1-3 credits)	1-3
HS 410	Chronic Disease Epidemiology and Prevention	3
HS 433	Principles of Conditioning and Nutrition	3
HS 490	Internship (1-3 credits)	1-3

Electives for B.A. in Health Science (must take a minimum of 12 credits)

PY 210	Developmental Psychology	3
PY 236	Biological Psychology	3
PY 357	Developmental Psychopathology	3
PY 358	Psychopathology	3
SO 271	Introduction to Social Welfare	3
SO 275	Population Analysis	3
SO 368	The Helping Process in Social Services	3
HS 390	Internship (1-3 credits)	1-3

HS 410	Chronic Disease Epidemiology and Prevention	3
HS 433	Principles of Conditioning and Nutrition	3
HS 450	Health Policy and Management	3
HS 475W	Health Promotion Planning Implementation And Evaluation	3
HS 490	Internship (1-3 credits)	1-3

Community Health

The Community Health major is designed to prepare students to think critically, communicate effectively, and solve complex problems related to the health of communities. Grounded in evidence-based thinking and social justice, majors will: assess individual and community needs and resources; plan, implement, and evaluate effective health education programs; coordinate the provision of health education services; and advocate for the health of all people.

Requirements for a Community Health Major, B.A. (51)

HS 179	Foundations of Health Sciences	3
HS 220	Anatomy and Physiology I	4
HS 220L	Lab: Anatomy and Physiology I	0
HS 221	Anatomy and Physiology II	4
HS 221L	Lab: Anatomy and Physiology II	0
HS 261	Community Health	3
HS 363	Personal Health and Nutrition	3
HS 385	Sexuality and Society	3
HS 387	Drugs and Society	3
HS 410	Chronic Disease Epidemiology and Prevention	3
HS 450	Health Policy and Management	3
HS 475W	Health Promotion Planning Implementation And Evaluation	3
HS 490	Internship	4
HS 498	Senior Seminar	3
MA 256	Elementary Probability and Statistics	3
Community Health Electives (must take a minimum of 9 credits)		9
PY 210	Developmental Psychology	
HS 326	Exercise Physiology	
HS 326L	Exercise Physiology Lab	
PY 330	Psychology of Poverty and Social Class	
HS 376	Health Psychology	
PY 358	Psychopathology	
SO 271	Introduction to Social Welfare	
SO 368	The Helping Process in Social Services	
AT 270	Emergency Response	

B.S. in Health Science, Pre-Athletic Training track

The B.S. in Health Science, pre-athletic training track, is designed for individuals interested in pursuing a Master's degree in Athletic Training (either at Whitworth or at another institution).

This pre-athletic training track integrates all pre-requisite courses for Whitworth's Master of Science in Athletic Training (see more information at <http://www.whitworth.edu/athletictraining/>).

An additional pre-athletic training track is offered through the Kinesiology department (<http://catalog.whitworth.edu/undergraduate/kinesiology>).

Mission statement

The mission of the Athletic Training Program at Whitworth University is to equip students with the knowledge and skills necessary to become proficient and professional entry-level athletic trainers. This is accomplished through high quality instruction and experiences that model ethical practice, effective communication and compassion. The program utilizes a holistic approach in developing multi-dimensional healthcare professionals and servant-leaders within the context of a Christian liberal-arts environment.

Requirements for B.S. in Health Science, pre-athletic training track (61-62)

BI 140	General Biology I: Genes, Cells and Evolution	4
CH 101	Introduction to Chemistry	3
or CH 161	General Chemistry I	
CH 101L	Introduction to Chemistry Lab	1
or CH 161L	General Chemistry I Lab	
HS 179	Foundations of Health Sciences	3
HS 220	Anatomy and Physiology I	4
HS 221	Anatomy and Physiology II	4
HS 261	Community Health	3
HS 320	Structural and Mechanical Kinesiology	4
HS 326	Exercise Physiology	4
HS 326L	Exercise Physiology Lab	0
HS 363	Personal Health and Nutrition	3
HS 365WH	Evidence Based Health Science	3
HS 433	Principles of Conditioning and Nutrition	3
One of the following:		1-2
AT 170	Advanced CPR and First Aid	
AT 270	Emergency Response	
AT 271	Introduction to Athletic Training	2
HS 390	Internship (In Athletic Training)	1
PY 101	Introductory Psychology	3
MA 256	Elementary Probability and Statistics	3
Major Electives		12

A pre-athletic training major is also available through the Kinesiology department (<http://catalog.whitworth.edu/undergraduate/kinesiology>)

Athletic Training Courses

AT 170 Advanced CPR and First Aid 1

This course provides a comprehensive survey of cardiopulmonary resuscitation and first aid, focusing especially on situations likely to be encountered by professionals in health science and kinesiology. The intention is to provide the knowledge and skills necessary to work in an emergency to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until more advanced medical help can arrive. Leads to certification at the healthcare provider level.

AT 270 Emergency Response 2

First-aid and safety procedures. Emergency response and CPR certificates from the Red Cross awarded to those who qualify. Lab required.

AT 271 Introduction to Athletic Training 2

Survey of the profession of athletic training. Injury prevention, assessment, treatment, taping and rehabilitation of common athletic injuries will be presented. Lab required. Spring semester.

AT 271L Lab: Introduction to Athletic Training 0

AT 333 Organization and Administration of Athletic Training 3

This course is designed to expose students to the organization and administration concepts of athletic training. Content includes management, leadership, legalities, historical perspectives, motivation and technology. Prerequisite: AT 334. Also listed as LS 332. Spring semester.

AT 334 Physical Examination of the Lower Extremities in Athletic Training 4

Intense in-depth study of the lower extremities including physical examinations, injury recognition, treatment, taping, bracing, and care. Laboratory experiences emphasize the methods and techniques in evaluating lower extremity injuries/conditions. Prerequisite: HS 220 & HS 221. Lab required.

AT 334L Lab: Lower Extremities in Athletic Training 0

AT 335 Physical Examination of the Upper Extremities in Athletic Training 4

This course is an intense in-depth study of the upper extremities including physical examinations, injury recognition, treatment, taping, bracing, and care. Laboratory experiences emphasize the methods and techniques in evaluating upper extremity injuries/conditions. Prerequisite: AT 334. Lab required.

AT 335L Lab: Upper Extremities in Athletic Training 0

AT 338 Sports Medicine Study Program: Preparation 1

This preparatory course is designed to equip students for participation in the AT 339 Seminar in Sports Medicine: Japan program. Content includes basic language instruction, cultural nuances, healthcare differences and Japanese religions. Spring semester, odd years.

AT 339 Seminar in Sports Medicine: Japan 1-3

Comparative analysis of Eastern and Western philosophies of athletic health care. Conducted at various locations in Japan. May Term, odd years. Prerequisite: AT 338.

AT 383 Clinical Experience III 2

Clinical experience in athletic training.

AT 384 Clinical Experience IV 2

Clinical experience in athletic training.

AT 432 Therapeutic Exercise 3

Instruction on the effective application of therapeutic exercise in order to achieve symptom-free movement and function. Content includes basic principles of exercise, therapeutic effects of exercise, functional evaluation of performance, goniometric measurements and manual muscle testing. Prerequisite: AT-334. Lab required. Fall semester.

AT 483 Clinical Experience V 2

Clinical experience in athletic training.

AT 484 Clinical Experience VI 2

Clinical experience in athletic training.

AT 498 Capstone in Athletic Training 1

This capstone experience is designed to prepare athletic training students for the BOC examination, graduate school and entry-level employment in athletic training. The course will include engagement with current professional issues and reflection on professional philosophy. Prerequisite: AT-483.

Health Science Courses

HS 162 Personal Health 3

In this course students will investigate and discuss current issues related to personal health and holistic wellness. Topics include: health in our society, chronic diseases, mental health and stress, spirituality, sleep, nutrition, fitness, body weight and composition, body image, substance abuse, relationships, violence, social health and justice, and health policy. Fall and spring semesters.

HS 179 Foundations of Health Sciences 3

Foundations of the Health Sciences introduce students to the exploration of careers in the Health Sciences. Through self-evaluation, and critical analysis, students will be introduced to a variety of Health Science related professions. This introductory course is designed for 1st and 2nd year students and is offered each Jan Term.

HS 185 Medical & Anat. Terminology 2

Designed to help students understand health care related language, and prepare for HS 220 and HS 221. Medical terms, abbreviations, prefixes, suffixes, and root words will be examined as they related to body systems, medical disorders, and health care. Summer.

HS 215 Nutrition for Nursing 3

Introductory course on nutrition with a focus on how it impacts all aspects of health. Consideration will be given to nutrient metabolism, the clinical applications of nutrition specific to nurses, and assessment of one's own health. Prerequisites: CH 101 & 102; Jan Term

HS 220 Anatomy and Physiology I 4

Gross anatomy and physiological applications of the integumentary, skeletal, muscular, respiratory, and nervous systems of the human body. Emphasis given to the relationship of major organs to health and disease. Lab component provides practical application in the location and isolation of anatomical parts. Designed for students in nursing, athletic training, and kinesiology as well as other allied health programs. Lab required. Prerequisite: sophomore standing. Fall semester. Lab fee.

HS 220L Lab: Anatomy and Physiology I 0

HS 221 Anatomy and Physiology II 4

Gross anatomy and physiological applications of the cardiovascular, lymphatic, endocrine, digestive, urinary, and reproductive systems of the human body. Emphasis given to the relationship of major organs to health and disease. Lab component provides practical application in the location and isolation of anatomical parts and physiological assessments. Designed for students in nursing, athletic training, and kinesiology as well as other allied health programs. Lab required. Prerequisite: HS 220. Spring semester. Lab fee.

HS 221L Lab: Anatomy and Physiology II 0

HS 261 Community Health 3

This course will explore foundations of community health, our nation's health status, health disparities, social determinants of health, and local and national health agendas. Specific emphasis is placed on social, behavioral, and environmental community health-related issues and the controversies that surround them. Group and presentation work will be included in the course. Class discussions and written reports will examine the complexity of the relationship between the natural environment, the built environment, and health outcomes. Fall and spring semesters. Jan Term.

HS 301 Introduction to Healthcare Administratio 3

Introduction to Healthcare Administration This course provides an introduction to the structure, operation and financing of the American healthcare system. It examines the major industry participants; how healthcare services are allocated and financed; the factors that influence the cost and quality of care; and opposing positions on the future of healthcare reform.

HS 315 Nutrition 3

Consideration of nutrients and their functions in the body. Discussion of nutrition and health, clinical applications of nutrition, facts and fallacies about diet. Prerequisites: CH 102 or CH 181. Fall and spring semester, Jan Term.

HS 320 Structural and Mechanical Kinesiology	4
A study of human motion, emphasizing analysis of joint and muscular action and the application of biomechanical principles for sport skills common to physical education and athletics. Lab required. Prerequisite: HS 220 and HS 221. Fall and spring semester.	
HS 326 Exercise Physiology	4
The study of theory and practical application of exercise as it applies to the human body. Lab required. Prerequisite: HS 220 and HS 221. Fall semester.	
HS 326L Exercise Physiology Lab	0
HS 335 Clinical Anatomy and Orthopedic Evaluation	3
This course will be an in-depth study of the upper and lower extremities including clinical anatomy, physical examinations, and basic injury recognition. Class will be a combined lecture/lab format, and experiences will emphasize recognition and palpation of bony and soft tissue landmarks, the methods and techniques in evaluating orthopedic injuries/conditions, and a discussion of injury/dysfunction implications. Prerequisite: HS-220 & HS-221.	
HS 355 Training Theory & Program Design	3
In this course, students will learn more complex principles and applications of exercise training theory and program design, including needs assessments, periodization, evidence-based practice, and current trends in the field.	
HS 363 Personal Health and Nutrition	3
This course will investigate current issues related to personal health and holistic wellness. Special emphasis will be placed on nutrition for kinesiology and athletic training majors. Required for Kinesiology and Athletic Training Majors only. Fall Term.	
HS 365WH Evidence Based Health Science	3
An exploration of research methods, critical appraisal, and the use of evidence to guide practice in a variety of health-related fields. Students will learn to formulate a clear clinical question based on personal area of interest, conduct a relevant literature review, and be able to synthesize the evidence to determine best practice. Prerequisite: HS 326. Spring semester.	
HS 372 Global Medicine	3
This course focuses on three overarching topics: (a) cultural competency in the provision of healthcare services, (b) analysis of global healthcare systems and selected global health concerns, and (c) international health volunteerism. Through study and practical experience, this class aims to equip students to critically analyze public or private health delivery organizations, acknowledge the need for provision of culturally competent healthcare, and appreciate how regional society (history, culture, politics, etc.) influence health.	
HS 376 Health Psychology	3
The study of biological, psychological, and sociocultural perspectives influence an individual's overall health including: behavior change theory and application, coping and stress management, psychoneuroimmunology, the impact of personality and cognitive patterns, vision and goal development to facilitate health behavior change. Cross-listed: PY 376. Prerequisite: PY 101 and junior status. Fall semester.	
HS 385 Sexuality and Society	3
This course focuses on issues surrounding the mental-emotional, physical, and social aspects of human sexuality. Key course content areas include: communication, sexual anatomy, reproduction and reproductive technology, sexual consent and coercion, and decision making regarding sexual behavior. Fall semester, even years.	
HS 387 Drugs and Society	3
The course focuses on drug use and abuse from a biopsychosocial perspective. Specifically, the course explores the health related consequences of drug use, the historical aspects surrounding use and abuse, and issues and solutions in treatment and enforcement. Fall semester, odd years.	

HS 390 Internship	1-6
HS 410 Chronic Disease Epidemiology and Prevention	3
Survey of major chronic diseases, risk factors, epidemiology, and various public health approaches (e.g. nutrition, physical activity, behavioral interventions and alternative therapies). Conditions include: cancer, cardiovascular disease, diabetes, kidney disease, lung diseases, neurologic disorders, musculoskeletal diseases, and metabolic syndrome. Prerequisites: HS 326, HS 361 and HS 362.	
HS 433 Principles of Conditioning and Nutrition	3
Development of proficiency in the theory, design, and implementation of conditioning programs. Instruction will include nutritional consideration and ergogenic aids for physical conditioning. Prerequisite: HS 320 and HS 326. Fall and spring semesters. Instructor consent required.	
HS 450 Health Policy and Management	3
This course will explore health policy issues confronting public health. It will review the processes that influence development and implementation of health policies, roles of health service organizations, agencies associated with public health, and current public health trends. Fall semester.	
HS 475W Health Promotion Planning Implementation And Evaluation	3
This course will enable students to create a detailed and effective health promotion program using evidence-based program design. It will allow students to bridge health content knowledge with behavior change theory and application. Emphasis will be placed on developing and understanding: needs assessment, program rationale, mission statements, goals and objectives, implementation plans, and evaluation protocols. Prerequisite: HS-361 and HS-362. Spring semester.	
HS 490 Internship	1-6
HS 498 Senior Seminar	3
Exploration of issues and mechanisms of health professional accountability, a humanistic basis of healthcare, cultural competence, social justice issues in healthcare, basic health policy principles, principles that guide ethical decision-making, patient rights, and healthcare professional duties. Senior standing. Fall and spring semesters.	

Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.