Health Sciences

The Whitworth Health Sciences Department offers majors in health science, community health, pre-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. (57)

Major Core Courses		
BI 140	General Biology I: Genes, Cells and Evolution	4
CH 161	General Chemistry I	3
or CH 101	Introduction to Chemistry	
CH 161L	General Chemistry I Lab	1
or CH 101L	Introduction to Chemistry Lab	
CH 181	General Chemistry II	3
or CH 102	Bioorganic Chemistry	
CH 181L	General Chemistry II Lab	1
or CH 102L	Bioorganic Chemistry Lab	
HS 162	Personal Health	3
HS 179	Foundations of Health Science	2
HS 220	Anatomy and Physiology I	4
HS 221	Anatomy and Physiology II	4
HS 261	Community Health	3
HS 315	Nutrition	3
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		1
HS 490	Internship	
Students must take a minimum of 15 credits from major electives		15

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 postgraduate goals.

Electives for B.S. in Health Science (must take a minimum of 15 credits)

BI 143	General Biology II: Ecology and Evolution	4
BI 306	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
HS 320	Structural and Mechanical Kinesiology	4
HS 370	Food Systems & Public Health	3
HS 376	Health Psychology	3
HS 385	Sexuality and Society	3
HS 387	Drugs and Society	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 490	Internship (1-3 credits)	1-3
PH 302	Medical Ethics	3
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 304	Global Social Issues,Social Health in Scandinavia	3
SO 368	The Helping Process in Social Services	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. (50)

HS 179	Foundations of Health Science	2
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 370	Food Systems & Public Health	
HS 376	Health Psychology	
PY 358	Psychopathology	
SO 271	Introduction to Social Welfare	
SO 304	Global Social Issues,Social Health in Scandinavia	
SO 368	The Helping Process in Social Services	

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 prerequisite courses for Whitworth's Master of Science in Athletic Training (see more information at www.whitworth.edu/athletic-training (http://www.whitworth.edu/athletictraining/)).

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 multidimensional 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 (57)

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 Science	2
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
AT 170	Advanced CPR and First Aid	1
AT 271	Introduction to Athletic Training	2

AT 390	Internship	1
PY 101	Introductory Psychology	3
PS 151	General Physics I	3
or PS 131	College Physics for Life Sciences	
Major Electives from the following:		12
B.S. Health Science Electives		
MSAT Courses (if approved by department)		
HS 498	Senior Seminar	
HS 315	Nutrition	

B.A. in Health Science, Pre-Occupational Therapy

The B.A. in health science, pre-occupational therapy is designed to prepare students for careers in health sciences, as well as provide some students direct entry into the Doctor of Occupational Therapy (OTD) graduate program at Whitworth. This major is designed to be part of a 3 + 3 program when combined with Whitworth's Doctor of
Occupational Therapy program. All undergraduate degree requirements for a bachelor's degree will still apply. Students will complete all Shared Curriculum requirements in the first three years, before beginning OT coursework in their 4th year. Courses taken in the 4th year will count toward existing undergraduate requirements of 126 total credits and 36 upper division credits. Students apply in year 3 and, if accepted, will start the graduate degree program in year 4, but will still be considered undergraduate students until the bachelor's degree is posted after year 4. Credits taken cannot count towards 2 degrees at the same time. Credits taken as an undergraduate student go on the undergraduate transcript and GPA. Students in the Pre-OT major will not receive the BA in Health Science until successfully completing the 4th year of study.

Mission Statement

The mission of the entry-level Doctorate in Occupational Therapy at Whitworth University provides innovative, creative, holistic and interprofessional mind-and-heart education to develop and empower ethically competent and transformational leaders in occupational therapy and healthcare. Guided by and committed to faith integration, reciprocal therapeutic relationships and an understanding of the potency of daily life activities, the program prepares practice scholars who use best scientific evidence to be catalysts for change, advocates for occupational justice and servants of humanity.

Requirements for B.A. in Health Science, Pre-Occupational Therapy (45)

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 Science	2
HS 185	Medical & Anat. Terminology	1
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 363	Personal Health and Nutrition	3
HS 365WH	Evidence Based Health Science	3
HS 390	Internship	1
or HS 490	Internship	
PY 101	Introductory Psychology	3
PY 210	Developmental Psychology	3
PY 358	Psychopathology	3
SO 120	Introduction to Sociology	3
or SO 120H	Honors Introduction to Sociology	

Other courses outside the major, taken as electives or to fulfill shared curriculum requirements, but required to be completed before admittance into the OTD program include (15 credits):

- MA 256: Elementary Probability and Statistics - 3 credits
- EL 211: Introduction to Professional Writing - 3 credits
- Nine (9) credits in performing arts, humanities, and wellness (ex. nutrition, physical education, dance, theology)

AT 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 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 338 Sports Medicine Study Program: Preparation **1**

The purpose of this course is to prepare students who are participating in the May Term off campus program in Japan. The course will provide an introduction to the historical and contemporary aspects of Japanese society. We will pay particular attention to healthcare, culture and theological dimensions of Japanese life.

AT 339 Seminar in Sports Medicine: Japan **1-3**

This study abroad opportunity offers students the chance of a lifetime to explore western Japan. Students will travel to Japan with an energetic community to engage in contemporary culture. Particular emphasis will be placed on experiencing Japanese society as it relates to gender, sports, religion, healthcare and education.

AT 390 Internship **1-6**

AT 390H Honors Internship **1-12**

Students of junior or senior standing wishing to enroll in an Honors-designated internship must first identify a professor to oversee the internship. Students will then register for a 390H in the discipline of the supervising professor and complete the Honors Internship form, available on the honors web pages under "Forms," and Career Services Internship Contract located at Pirate Port/Forms/Career Services/Internship contract. Any semester.

AT 391H Honors Independent Study **1-4**

Students of junior or senior standing wishing to enroll in an Honors-designated independent study or creative project must first identify a professor who will oversee this work. Students will then register for a 391H (first time) or 491H (second time) in the discipline of the supervising professor using this online form located at Pirate Port/Forms/Registrar/Teaching Assistant Independent Study. Any semester.

AT 392H Honors Study Abroad **1-12**

Students wishing to enroll in an Honors-designated Off-Campus Program will enroll via this online form located at Pirate Port/Forms/Registrar/Teaching Assistant-Independent Study-HOC, and registering for a 1-credit 392H (first time) or 492H (second time) in the discipline of the program (e.g. FR392H for Jan-term in Paris). Any semester. Students must also complete the Off-Campus Programs application (available on the honors web pages under "Forms"), which explains the honors requirements (a pre- and post-trip cultural assessment through Cultural Intelligence, scheduled via Karly Rasmussen [krasmussen@whitworth.edu], the reading and discussion of Expand Your Borders text [available from the honors program] with the supervising professor, as well as any additional assignments and activities [e.g. blog, journal, etc.] determined by the professor). Any semester.

HS 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.

HS 179 Foundations of Health Science **2**

Foundations of Health Science is an exploration of the core themes and careers in our discipline. Through lectures, readings, class discussions, and guest speakers, students will be introduced to a variety of Health Science related topics and professions. This introductory course is required for 1st year students and is offered in fall and spring semesters.

HS 185 Medical & Anat. Terminology **1**

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.

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: Full year of Chemistry; Jan Term. This course is intended for nursing majors only.

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. Offered fall, jan, and spring semesters.

HS 301 Introduction to Healthcare Administratio n **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. For continuing studies students only.

HS 302 Healthcare Theatre **1**

This course is an introduction to the use of theatre in healthcare. Simulated patients, portrayed by healthcare students or trained actors, are frequently utilized in healthcare education to improve both clinical skills and interpersonal communication. Students will engage in simulation and activities designed to enhance empathy, patient-provider communication skills, and development/portrayal of characters with medical conditions.

HS 304 Social Health in Scandanavia **3**

This course will examine structures and systems in Scandinavia that contribute to the social health of those countries. Students will engage in comparative analysis of welfare and non-welfare states by investigating the principles and challenges that underpin the Scandinavian welfare states including education, gender and family policies, and health systems. This course includes a two-week study tour in Denmark, Sweden, and Norway. Offered May term, even years.

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: Full year of Chemistry. Fall and spring semester.

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.

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. Offered periodic Jan and May terms.

HS 340 Health Communication & Advocacy **3**

This course will explore applied health communication strategies that inform individual and community decision-making aimed at enhancing health. It also embeds the role of advocacy in public health by incorporating social networking and mobilization, interpersonal communication and negotiation, as well as the use of media and social platforms for generating public discourse. Students will explore the use of counseling, public campaigns, and political processes to advocate for health among diverse populations. Students will integrate professional ethics and cultural competence to promote health goals consistent with personal values.

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. Prerequisite: HS 326. Periodic Jan term only.

HS 363 Personal Health and Nutrition **3**

This course will investigate current issues related to personal health and holistic wellness with an emphasis on nutrition. Required for and restricted to Kinesiology, Pre-Athletic Training, and Community Health Majors only.

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. Fall and spring semesters.

HS 366 Applied Health Science Research **3**

This course contributes to the Department of Health Science mission and goals by applying the research design concepts, statistical techniques, and critical appraisal of literature skills introduced in HS 365WH, Evidence-based Health Science.

HS 370 Food Systems & Public Health **3**

This course will introduce students to the concept of food systems and its relationship to public health in the United States. Through a combination of lecture, discussion, and experiential learning (field trips), students will consider the historical, economic, social, and political forces that have shaped our regional food system, including production, processing, distribution, consumption, and disposal of food, as well as the implications these have on health.

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. Prerequisites: HS 220 & HS 221. Periodic summer offering.

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.

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. Prerequisite: HS 261. Fall semester.

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.

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: Take HS 261 and take HS 162 or HS 363. Spring semester.

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 326. Fall and spring semesters.

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 objectives, implementation plans, and evaluation protocols. Prerequisite: HS 261 and HS 162 or HS 363.

HS 490 Internship **1-6**

3 credits maximum of HS-490 will apply to the Health Science major electives

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.