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### PhD in Health Sciences Curriculum

Time	Fall	Spring	Summer
Year 1	HS8030 Research Methods and Designs in Health Professions (3) HS8040 Biostatistics I (3) HS8004 Health Sciences Seminar (1) HS8080 Teaching in the Health Professions I (1) HS9000 Directed Research in Health Sciences (1-6) Concentration specific course (3)	HS8045 Biostatistics II (3) HS8004 Health Sciences Seminar (1) HS8085 Teaching in the Health Professions II (2) HS9000 Directed Research in Health Sciences (1-6) Concentration specific course (3)	CNHP8100 Grant Writing (3) +CNHP8500 Systematic Review and Meta-Analysis (3) CNHP8010 Leadership and Ethics in Healthcare (3) HS9000 Directed Research in Health Sciences (1-9) Concentration specific course (3)
Year 2	*CNHP8000 Trends Affecting Health Policy (3) HS8004 Health Sciences Seminar (1) HS9000 Directed Research in Health Sciences (1-6) +EPRS8550 Quantitative Methods and Analysis in Education III (3) (Education Policies) Concentration specific course (3) Elective course (3)	+CNHP8012 Qualitative Methods and Analysis (3) (Nursing) +EPRS 8830 Survey Research, Sampling Principles and Questionnaire Design (3) (Education Policies) +EPRS 9560 Structural Equation Modeling (3) (Education Policies) *CNHP8005 Healthcare Law and Ethics for the Health Professional (3) HS9000 Directed Research in Health Sciences (1-6) Concentration specific course (3)	Doctoral Preliminary Examination (3#) HS9000 Directed Research in Health Sciences (1-9) Concentration specific course (3)
Year 3	HS9006 Doctoral Dissertation (1-12) * Teaching internship Doctoral Preliminary Examination (3# - Nutrition)	HS9006 Doctoral Dissertation (1-12) * Teaching internship	HS9006 Doctoral Dissertation (1-12) * Teaching internship
Year 4	HS9006 Doctoral Dissertation (1-12) * Teaching internship	HS9006 Doctoral Dissertation (1-12) * Teaching internship	HS9006 Doctoral Dissertation (1-12)

\* Select one from the two courses

+ Select one from the four courses or take PHPH8830 Advanced Statistical Topics, PHPH8885 Fundamentals of Clinical Trials, EP RS8660 Bayesian Statistics, EPRS9550 Multivariate Analysis, EPRS9570 Hierarchical Linear Modeling I, or EPRS9350 Introduction to Item Response Theory.

^ Students can also register for CNHP9000 Directed Research in Health Sciences and CNHP9006 Doctoral Dissertation (3) during summer

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\*\* Assistantship 12 credits in Fall or Spring /6 credits in summer

### Concentration-Specific Courses

Concentration	Fall	Spring	Summer
Cardiopulmonary Care	RT 9060: Critical Care Therapeutics (3) RT 9040 Advanced Monitoring (3) RT 8095: Special Problems in Respiratory Care (3)	RT 9030: Advanced Ventilation (3) RT 8950 Directed Readings in RT (3)	RT 9090 Research Seminar (3)
Nutrition	NUTR8104 Advanced Normal Nutrition (3)	NUTR9200 Nutrition & Disease (3) NUTR9280 Nutritional Genomics (3)	NUTR9950 Advanced Topics in Nutrition (3) NUTR8101 Nutrition Research Methods (3)
Occupational Therapy	OT80?? The Role of Contexts in Health and Occupational Performance (3) OT9210 Occupational Performance in Neurologic Population (3) OT8220 Assistive Technology (3) OT8230 Family Centered Care in Early Intervention (3)	OT9201 Brain Injury (3) OT9000 Applying Measurement Theory to Assessment and Interventions (3)	OT8025 Theory Development Process for OT (3)
Translational Rehabilitation Science	PT9025 Instrumentation in Biomechanics and Rehabilitation Medicine (3) PT9010 Adaptations in Neuromuscular Rehabilitation (3)	PT9020 Advanced Motor Control and Learning (3) PT9015 Advanced Biomechanics for Rehabilitation Science (3) PT9030 Advanced Topics in Translational Rehabilitation Medicine (3)	

### Note:

Students who have not completed an undergraduate or master's program in nutrition or dietetics need to take the following prerequisite courses which will take a minimum of three semesters to complete:

Inorganic Chemistry	2 semesters	CHEM1211K* and CHEM1212K# or equivalent
Organic Chemistry	1 semester	CHEM2400 and CHEM2100 or equivalent
Human Anatomy and Physiology	2 semesters	BIOL2251K (formerly 2110K) and BIOL2252K (formerly 2120K), or BIOL2107K and

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		BIOL2108K, or BIOL3240 and BIOL3250, or equivalent
Principles of Nutrition**	1 semester	NUTR2100 or equivalent

\* Please note: CHEM1211K is a prerequisite for CHEM1212K and BIOL2251K

# CHEM1212K is a prerequisite for CHEM2400 and CHEM2100

\*\* Online laboratory courses are not accepted

Coursework in Human Anatomy & Physiology, Nutrition, Inorganic Chemistry and Organic Chemistry must not be more than 10 years old at the time of admission.

## PhD in Health Sciences Curriculum

**Table 1. Health Sciences Core Courses:**

<b>Health Sciences Core Courses: (5 required health science courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>Instructor [Format]</b>
<b>Required</b>			
CNHP 8100	Grant Writing	3	Desi [in-person] (Summer)
CNHP 8004 CNHP 8700	Health Sciences Seminar (1 hour per semester)	3	Rafaela [in-person] (Fall/Spring)
CNHP 8010	Leadership and Ethics in Healthcare	3	Cedric Truss [online] (Summer)
CNHP 8080	Teaching in the Health Professions I	1	Lowell [in-person] (Fall)
CNHP 8085	Teaching in the Health Professions II	2	Emily and Pey-Shan [in-person] (Spring)
CNHP 8000*	Trends in Health Policies	3	Cedric Truss [online] (Fall)
CNHP 8005*	Healthcare Law and Ethics for the Healthcare Professional	3	Cedric Truss [online] (Spring)
	<b>Total Hours</b>	<b>12</b>	

\* Alternative course for CNHP 8010 Leadership and Ethics in Healthcare

**Table 2. Research/Statistics Core Courses:**

<b>Research/Statistics Core Courses (3 required and 1 elective from the 5 listed courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>Instructor [Format]</b>
<b>Required</b>			
CNHP 8030	Research Method and Design in Health Professions	3	Nida [in-person] (Fall)

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CNHP 8040	Biostatistics I	3	TBD [Online] (Fall)
CNHP 8045	Biostatistics II	3	TBD [Online] (Spring)
<b>Electives</b>			
CNHP 8500 PHPH 8885	Meta-Analysis I	3	Gordon Warren [in-person] (Summer)
NURS 8012	Qualitative Methods and Analysis	3	Nursing Faculty [online]
PHPH 8830	Advanced Statistical Topics	3	SPH Faculty [online]
PHPH 8885	Fundamentals of Clinical Trials	3	SPH Faculty [online]
PHPH 7711	Epidemiology Method I	3	SPH Faculty [in-person] (Spring)
	<b>Total Hours</b>	<b>12</b>	

**Table 3. Health Sciences Research and Dissertation Courses:**

<b>Health Sciences Research and Dissertation: (3 required courses; 24-45 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>New or Existing</b>
CNHP 9000	Directed Research in Health Sciences (3 h/semester before passing the preliminary examination, minimum 12 credits)	12-24	Advisor [in-person] (All)
CNHP 9005	Doctoral Preliminary Examination	3*	Depend [in-person] (Summer or Fall)

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CNHP 9006	Doctoral Dissertation (3 h/semester after passing the preliminary examination, minimum 12 credits)	12-18	Advisor [in-person] (All)
	<b>Total Hours</b>	<b>24-45</b>	

\* This may vary based on concentration-specific requirements

#### Table 4a-4d. CONCENTRATION SPECIFIC REQUIRED CORE COURSES

**Table 4a. Concentration Specific Courses in Nutrition**

<b>Concentration Specific Required Core Courses: (4 required from the 5 listed courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>[Format] / Semester</b>
NUTR 8101*	Nutrition Research Methods	3	[Online] / Summer
NUTR 8104*	Advanced Normal Nutrition	3	[Online] / Fall
NUTR 9200*	Nutrition & Disease	3	[in-person] / Spring
NUTR 9950*	Advanced Topics in Nutrition	3	[TBD] / Summer
NUTR 9280*	Nutritional Genomics	3	[Online] / Spring
	<b>Total Hours</b>	<b>12</b>	

\*Existing in the Master's degree in Health Sciences program

**Table 4b. Concentration Specific Courses in Occupational Therapy:**

<b>Concentration Specific Required Core Courses: (4 required courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>[Format] / Semester</b>
OT 8020+	Theory Development Process for OT Practice	3	[in-person] / Summer

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OT 8025+	The Role of Contexts in Health and Occupational Performance	3	[in-person] / Fall
OT 9000+	Applying Measurement Theory to Assessments and Interventions	3	[in-person] / Spring
OT 8220+ OT 9201+ OT 9210+ OT 8230+	Emerging/Advanced Topics in OT: select one from <ul style="list-style-type: none"> <li>Assistive Technology (8220)</li> <li>Brain Injury (9201)</li> <li>Occupational Performance in Neurologic Population (9210) or</li> <li>Family Centered Care in Early Intervention (8230)</li> </ul>	3	[in-person] / Fall [Online] / Spring  [in-person] / Fall  [Hybrid] / Fall
	<b>Total Hours</b>	<b>12</b>	

+ Existing in the clinical doctorate of Occupational Therapy program

**Table 4c. Concentration Specific Courses in Translational Rehabilitation Science (Housed in the Department of Physical Therapy):**

<b>Concentration Specific Required Core Courses: (4 required from the 5 listed courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>[Format] / Semester</b>
PT 9010	Adaptations in Neuromuscular Rehabilitation	3	[hybrid] / Fall
PT 9015 KH 8770	Advanced Biomechanics for Rehabilitation Science	3	[in-person] / Spring
PT 9020	Advanced Motor Control and Learning	3	[hybrid] / Spring
PT 9025 KH 8850	Instrumentation in Biomechanics and Rehabilitation Medicine	3	[in-person] / Fall
PT 9030	Advanced Topics in Translational Rehabilitation Medicine	3	[hybrid] / Spring

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	<b>Total Hours</b>	<b>12</b>	
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**KH 8850 offers every other Fall in even year (e.g., 2022, 2024, etc.)**

**KH 8770 offers every other Spring in even year**

**Table 4d. Concentration Specific Courses in Cardiopulmonary Care (Housed in the Department of Respiratory Therapy):**

<b>Concentration Specific Required Core Courses: (4 required from the 6 listed courses; 12 hours)</b>			
<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>[Format] / Semester</b>
RT 9060 <sup>#</sup>	Critical Care Therapeutics	3	[in-person] / Fall
RT 9030 <sup>#</sup>	Advanced Ventilation	3	[in-person] / Spring
RT 9040 <sup>#</sup>	Advanced Monitoring	3	[in-person] / Fall
RT 9090 <sup>#</sup>	Research Seminar	3	[in-person] / Summer
RT 8095 <sup>#</sup>	Special Problems in Respiratory Care	3	[hybrid] / Fall
RT 8950 <sup>#</sup>	Directed Readings in RT	3	[hybrid] / Spring
	<b>Total Hours</b>	<b>12</b>	

<sup>#</sup>Existing in the Master's degree in Health Sciences program

Possible Electives from other colleges:

*Quantitative Methodology*

- *EPRS 8530 Quantitative Methods and Analysis in Education I (3)*
- *EPRS 8540 Quantitative Methods and Analysis in Education II*
- *EPRS 8550 Quantitative Methods and Analysis in Education III (3)*
- *EPRS 8820 Institutional Research (3)*
- *EPRS 8830 Survey Research, Sampling Principles and Questionnaire Design (3)*



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- *EPRS 8840 Meta-Analysis (3)*
- *EPRS 8660 Bayesian Statistics (3)*
- *EPRS 9550 Multivariate Analysis (3)*
- *EPRS 9560 Structural Equation Modeling (3)*
- *EPRS 9570 Hierarchical Linear Modeling I (3)*
- *EPRS 9571 Hierarchical Linear Modeling II(3)*
- *EPRS 9900 Advanced Research (3)*

#### *Qualitative Methodology*

- *ANTH 8010 Qualitative Methods in Anthropology (3)*
- *EPRS 8500 Qualitative/Interpretive Research in Education I (3)*
- *EPRS 8510 Qualitative Research in Education II (3)*
- *EPRS 8520 Qualitative Research in Education III (3)*
- *EPRS 8640 Case Study Methods (3)*
- *EPRS 8700 Visual Research Methods (3)*
- *EPRS 9120 Poststructural Inquiry (3)*
- *EPRS 9400 Writing Qualitative Research Manuscripts (3)*
- *EPSF 9280 Interpretive Inquiry in Education (3)*

#### *Single-Case Methodology*

- *EPY 8850 Introduction to Single-Case Methodology (3)*
- *EPY 8860 Applications of Single-Case Methodology (3)*

#### *Historical/Philosophical Methodology*

- *EPSF 9850 Historical Research in Twentieth Century American Education (3)*
- *EPSF 9930 Philosophical Analysis and Method (3)*

#### *Measurement Methodology*

- *EPRS 7920 Classroom Testing, Grading, and Assessment (3)*
- *EPRS 8920 Educational Measurement (3)*
- *EPRS 9350 Introduction to Item Response Theory (3)*
- *EPRS 9360 Advanced Item Response Theory (3)*