

PHD in Nursing Courses and Curriculum

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TOTAL BSN TO PHD = 72 credits: 22 cr Research Core, 9 cr Stats Core, 41 cr Personalized Scientific Inquiry (12 cr dissertation + 6cr apprenticeship practicum +23cr additional PSI courses)

I. RESEARCH CORE: 22 REQUIRED CREDITS

A. Knowledge Development (KD)

KD--Core 1—NUR 3285 Philosophical Underpinnings of Nursing Research (3 cr)

Structure of knowledge; philosophy of science

KD--Core 2—NUR 3286 Theoretical Foundations for Research (3 cr)

Focus on relationship of theory to research; emphasis on role of theory in design and interpretation of research. Includes evaluation of theory, utility of theories in research, comparison of research strategies from various theoretical perspectives. Emphasis on midrange, multidisciplinary theories relevant to clinical research.

B. Methods and Analysis (MA)

MA--Core 3—NUR 3287 Research Design and Methods (3 cr)

Advanced level course in designing and applying quantitative and qualitative methods for research ; survey and evaluate scientific designs; emphasis on interrelationship of clinical problem and, study aims, design and methods.

MA--Core 4 –NUR 3288 Research Measurement (2 cr)

Theory of measurement, reliability and validity of research instruments; emphasis on interrelationship of study aims, design and methods in outcomes measurement.

MA--Core 5—NUR 3289 Intervention Development (2 cr)

Theory of intervention selection, design, development and testing to achieve study aims and outcomes.

MA-- Core 6—NUR 3290 Advanced Quantitative Analytic Methods Seminar (3 cr; 1 cr didactic, 2 cr lab)

Focus on application of advanced statistical techniques; aspects of quantitative methodology relevant to statistical analysis such as design, sampling, statistical power, and sample size, and significance will be conceptually integrated with data analysis.

C. Professional Development (PD)

PD--Core 7 – NUR 3291 Responsibilities and Activities of Scientists I (2 cr)

This seminar addresses the responsibilities and activities of a scientist in the health professions, including ethical issues, health policy, scientific freedom and social responsibility, collaboration and negotiation, interdisciplinary research peer review,

PD--Core 8—NUR 3292 Responsibilities and Activities of Scientists II--- (2 cr)

This seminar addresses the responsibilities and activities of a scientist in the health professions, including development of a research plan, program of research and research career, research funding, grantsmanship, presentations and publications.

PD--Core9—NUR 3293 Art and Science of Teaching and Learning (2 cr)

Course design, methods of instruction, evaluation of learning for teaching in academia. One evaluative mechanism is a teaching practicum.

II. STATISTICS CORE: 9 REQUIRED CREDITS

Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1 (3 cr)

Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2 (3 cr)

Stats Core 3: NUR 3114 Applied Regression for Health Science Research (3 cr)

III. PERSONALIZED SCIENTIFIC INQUIRY: 41 REQUIRED CREDITS

A. PHD DISSERTATION: 12 REQUIRED CREDITS minimum

B. APPRENTICESHIP PRACTICUM: 6 REQUIRED CREDITS

<p>C. Personalized Scientific Inquiry Courses 23 REQUIRED CR MINIMUM (may take more) Students are required to take: C1. 4 cr Intensive Methods C2. 2 cr Intensive Professional Development C3. 2 cr Advanced Statistics C4. 8 cr Content Expertise. C5. 7 cr. Additional Personalized Courses</p> <ul style="list-style-type: none"> • Remaining can be additional course from any of III.C.1 thru C4. • Students may also select the alternate CORE 6 course (3cr) to provide for advanced qualitative and quantitative methodological exposure. 	<p>Students choosing to personalize their inquiry to qualitative research may choose to take any or all of the Qualitative Track course recommendations</p>
<p>C1. Intensive Methods Courses— choose 2 required (4 cr) IM 1—NUR 3062: Qualitative and Mixed Methods Research(2 cr) Intensive Methods Courses Outside of School of Nursing (examples) A. EPIDEM 2180 Methods I & EPIDEM 2187 Methods II (GSPH) B. Cognitive Neuropsychology (CMU 85-414) C. Neuroscience of Concepts (CMU 85-407) D. User-Centered Research Methods for Product Innovation (CMU 49-753) E. Qualitative Research Design & Methods (PIA 3050) F. Planning and Testing Documents (CMU 76-359) G. Scientific Integrity and Communication (CMU 88-417) H. Clinical Research Methods (CLRES 2010) I. Survey Design and Data Analysis (CLRES 2045) J. Health Equity Research: Methods & Interventions (BCHS 2526) K. Seminar in Health Services Research Methods 1 (HPM 3501) L. Introduction to Qualitative Methods (EDUC 3104) M. Introduction to Applied Research (BCHS 2525) N. Ethnographic and Qualitative Methods (BCHS 3007) O. Qualitative Research Methods I: Theory & Design (CLRES 2400) P. Qualitative Research (SWRES 2045)</p>	<p>Qualitative Track Qualitative Track Qualitative Track Qualitative Track Qualitative Track Qualitative Track</p>
<p>C2. Intensive Professional Development choose 1 required (2 cr) IPD 1: NUR 3054 Practicum in Nursing and Health Science Education (2 cr) IPD 2: NUR 3050 Grant Writing (2 cr) IPD 3: NUR 3052 Manuscript Development (1 cr) IPD 4: FACDEV 2200 Practicum on University Teaching (1-3 cr.) IPD 5: NURSP 2071 Design and Process of Instruction (3 cr.) IPD 6: NURSP 2072 Measurement and Evaluation (3 cr.)</p>	
<p>C3. Advanced Statistics Courses— Choose 1 required (2 cr) PSI STAT—NUR 2011 Applied Statistics for Evidence-Based Practice (3 cr.) Advanced Statistics Courses Outside of School of Nursing (examples) PSI STAT-STAT 2131 – Applied Statistical Methods 1 (3 cr.) PSI STAT-MEDEDU or CLRES 2005 - Computer Methods for Clinical Research (1 cr.) PSI STAT- CLRES 2022 - Logistic Regression (1 cr.) PSI STAT- CMU 36-461 Special Topics: Statistical Methods in Epidemiology</p>	
<p>C4. Content Expertise Choose (8 cr hours minimum required) <i>Students are encouraged to choose coursework that will build expertise in the scientific underpinnings of their area of inquiry. Students should take a minimum of 4 credit hours of this coursework from schools outside of the School of Nursing. For example, students may take Content Expertise courses from the other Schools of the Health Sciences, Psychology, Engineering or Education, among other Schools at the University of Pittsburgh. Students may also cross-register for courses offered at Carnegie Mellon University, Duquesne University, or Chatham University among others. Courses may also be used to partially fulfill the requirements of the Clinical Nurse Leader or the Doctor of Nursing Practice degrees in the School of Nursing.</i></p> <p>C.4.A. State of Science: Research CE-SSR 1—NUR 2681: State of the Science in Advanced Topics in Human Genetics (3 cr.) (Summer Odd Yr) CE-SSR 2—NUR 3066: State of the Science in Cancer Survivorship (3 cr.) (Fall Odd Yr) CE-SSR 3—NUR 3294: SoS in Research in Sleep and Circadian Rhythms (2 cr.) (Spring Even Yr) CE-SSR 4—NUR 3072: SoS in Applications of Machine Learning in Health Science (3 cr.) (Summer Even Yr) CE-SSR 5—NUR 3074: State of the Science in Chronic Disorders (2 cr.) (Fall Even Yr)</p>	

CE-SSR 6—NUR 3073: State of the Science in Health Services Research and Policy (2 cr.) (Spring Odd Yr)

CE-SSR Courses Outside of School of Nursing (examples)

- A. Human computer interaction & User Experience (CMU 49-780)
- B. Principles of Epidemiology (EPIDEM 2110)
- C. Human Population Genetics (HUGEN 2022)
- D. Foundations in Development, Genetics and Biochemistry (ORBIOL 3551)
- E. NIH/NINR Summer Genetics Institute (for Pitt credit via Practicum/IS).
- F. Introduction to Research on Disparities in Health Care (CLRES 2200)

C.4.B. State of Science: Applied Clinical

CE-SSCA 1—faculty idea

CE-SSCA 2—faculty idea

CE-SSCA 3—faculty idea

NUR 2004/2004D*/** Pathophysiology Across the Life Span 4 cr.

NUR 2034/2034D*/** Advanced Pharmacology 3 cr.

NUR 2031*/** The Diagnostic Physical Exam Across the Life Span 3 cr.

NUR 2010/2010D*/** Health Promotion Disease Prevention in Culturally Diverse Populations 3 cr

NUR 3099/3099D* The Science of Health Care Delivery 2 cr.

NUR 3012/3012D* Public Policy in Health Care 2 cr.

NUR3013/3013D* Ethics in Health Care 1 cr.

NUR 2680/2680D* Introduction to Genetics and Molecular Therapeutics 3 cr.

NURSP 2092/2092D* Leadership Development 3 cr.

NURSP 2062/2062D*/** Organizational and Management Theory 3 cr.

NURSP 2075/2075D*/** Introduction to Health Informatics 3 cr.

NURSP 2099/2099D*/** Finance and Economics for Health Care Leaders 3 cr

NUR 2009** Leadership and Healthcare Systems: Organization/Financing Healthcare 0 cr.

NURSP 2093** Education and Mentoring in the Clinical Setting 3 cr

NURSP 2095** Contemporary Issues in Nursing and the CNL Role Seminar 2 cr.

NUR 2008 ** Ethics for Advanced Practice Nursing 0 cr

NURSP 2096** CNL Clinical Practicum 1 2 cr.

NURSP 2097** CNL Clinical Practicum 2 3 cr.

CE-SSR Courses Outside of School of Nursing (examples)

G. Basics of Personalized Medicine

H. Gerontology certificate courses

I. Neurobiology

J. Cancer Epidemiology

K. Electronic Health Records (HRS 2490)

L. PSY 2252 Behavioral Medicine Interventions

M. PSY 2520 Psychoneuroimmunology

N. NROSCI 2012 Neurophysiology

O. BCHS 2575 – Seminar Maternal and Child Health

P. PSY 817 SHWB The Psychology of Sustainable Health and Well-Being (Chatham)

Q. NUR703 Ethics and Public Policy in Healthcare Deliver (Chatham)

* Required core for DNP preparation

** Required for MSN as CNL—above is 23 cr. To get MSN as CNL will need additional 19 credits for award of both masters and PhD (can only transfer in 24 cr from a master's degree toward the PhD [42-23=19])

C.5. Additional Personalized Courses—7 cr required (Can be from any of III.C.1 thru 4 above)

FOR MSN TO PHD. 24 cr. from prior masters is credited (i.e. 72-24 = 48 required)

These 48 credits require at a minimum:

KD Core 1—NUR 3285 Philosophical Underpinnings Nursing Research (3 cr)

KD Core 2 –NUR 3268 Theoretical Underpinnings Research (3cr)

MA Core 6—NUR 3290 Advanced Quantitative Analytics Methods Seminar (3 cr)

PD core 7—NUR 3291 Responsibilities and Activities of Scientists 1 (2 cr)

PD Core 8—NUR 3292 Responsibilities and Activities of Scientists 2 (2 cr)

Statistics Core (9 cr)

Dissertation (12 cr)

Apprenticeship Practicum (6 cr)

Total of above is 40 cr PLUS a minimum of 8 additional needed credits= 48 cr.

The advisor and student will prepare a gap analysis based on prior masters to determine the nature of the 8 additional needed credits (and possibly more if necessary) to be taken across the remaining research core courses and the Personalized Scientific Inquiry C 1 thru 4 (would need to have a minimum of 4 cr from III.C.1. Intensive Methods).

Prior preparation in their master's program (research focused or clinically focused) will drive the gap analysis.

BSN TO PHD CURRICULUM PLAN (3-Year Example)

YR	Term	Courses	Cr.	Mentored Research Experiences							
		<i>Course titles</i>	<i>Cr.</i>	<i>Apprenticeship Practicum** NUR 3071--6 cr total</i>		<i>Dissertation Project* NUR 3010-12 cr total</i>					
1	1	Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1	3	Citation index from mentors project area (may lead to **topical publication)	Throughout the Apprenticeship Practicum the student affiliates with the mentors active research team (participates in team meetings and all components of responsible conduct of research; presents apprenticeship study plan, results, and dissemination to the team, attends scientific area or center offerings and rounds, etc.)	Citation Index (may lead to **topical publication) *Grant abstract/aims draft (*F31 or comparable mechanism)					
		Core 1—NUR 3285 Philosophical Underpinnings	3								
		Core 7—NUR 3291 Responsibilities/Activities Scientist I	2								
	2	NUR 3010 Dissertation Credits	1								
		PSI#1—Prof Dev	2								
		PSI NUR 3071 Apprenticeship Practicum #1-	1								
							T 12				
	2	Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2	3				Purpose and aims for apprenticeship study using mentors' data, develop study proposal	Conduct apprenticeship study	dissemination to the team, attends scientific area or center offerings and rounds, etc.)	Grant Abstract/aims finalize, proposal development	
		NUR 3010 Dissertation Credits	2								
Core 2—NUR 3286 Theoretical Foundations		3									
3	Core 3—NUR 3287 Research Design	3									
	PSI NUR 3071 Apprenticeship Practicum #2	1									
				T 12							
3	NUR 3010 Dissertation Credits	2	Conduct apprenticeship study	Conduct apprenticeship study	dissemination to the team, attends scientific area or center offerings and rounds, etc.)	*Grant submission Prelims PRELIM EXAM END YR 01					
	Stats Core 3: NUR 3114 Applied Regression for Health Science Research	3									
	Core 4-NUR 3288 -Research Measurement	2									
2	Core 5-NUR 3289 Intervention Development	2	Publish Apprenticeship **Results paper				Publish Apprenticeship **Results paper	Publish pilot/submit conference COMP EXAM AND OVERVIEW END YR 02			
	C5 Additional PSI	2									
	PSI NUR 3071 Apprenticeship Practicum #3	1									
			T 12								
2	1	NUR 3010 Dissertation Credits	2						Analyze data	Analyze data	Pilot study thru IRB
		PSI IM #1--Intensive Methods #1	2								
		PSI CE #1—Content Expertise #1: State of the Science- Research	2								
	2	PSI CE #2—Content Expertise #2	2	Continue analysis, begin publication write-up, Submit **abstract for presentation	Continue analysis, begin publication write-up, Submit **abstract for presentation	Conduct pilot					
		Core 6-NUR 3290 -Adv. Quant. Analytic Methods Seminar	3								
		PSI NUR 3071 Apprenticeship Practicum #4	1								
				T 12							
	3	NUR 3010 Dissertation Credits	2	Publish Apprenticeship **Results paper			Publish Apprenticeship **Results paper	Publish pilot/submit conference COMP EXAM AND OVERVIEW END YR 02			
		PSI CE #4 –Content Expertise #4	2								
C5. Additional PSI		2									
3	C5. Additional PSI	3	Publish Apprenticeship **Results paper	Publish Apprenticeship **Results paper					Publish pilot/submit conference COMP EXAM AND OVERVIEW END YR 02		
	PSI NUR 3071 Apprenticeship Practicum #6	1									
					T 11						
			Total 72 credits								
3	1	Full Time Dissertation	FTD		-----					Full Time Dissertation	
	2	Full Time Dissertation	FTD		-----					Full Time Dissertation	
	3	Full Time Dissertation	FTD		-----		Full Time Dissertation DEFEND END YR 03 *Submit Results paper for publication				

BSN TO PHD CURRICULUM PLAN (4-Year Example)

YR	Term	Courses	Cr.	Mentored Research Experiences		
		<i>Course titles</i>	<i>Cr.</i>	<i>Apprenticeship Practicum** NUR 3071--6 cr total</i>		<i>Dissertation Project* NUR 3010-12 cr total</i>
1	1	<p>Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics for The Health Sciences 1</p> <p>Core 1—NUR 3285 Philosophical Underpinnings</p> <p>Core 7—NUR 3291 Responsibilities/Activities Scientist I</p> <p>PSI NUR 3071 Apprenticeship Practicum #1-</p>	3 3 2 1 T 9	<p>Citation index from mentors project area (may lead to **topical publication)</p> <p>Purpose and aims for apprenticeship study using mentors' data, develop study proposal</p> <p>Conduct apprenticeship study</p>	<p>Throughout the Apprenticeship Practicum the student affiliates with the mentors active research team (participates in team meetings and all components of responsible conduct of research; presents apprenticeship study plan, results, and dissemination to the team, attends scientific area or center offerings and rounds, etc.)</p>	
	2	<p>Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2</p> <p>Core 2—NUR 3286 Theoretical Foundations</p> <p>Core 3—NUR 3287 Research Design</p> <p>PSI NUR 3071 Apprenticeship Practicum #2</p>	3 3 3 1 T 10			
	3	<p>PSI#1—Prof Dev</p> <p>Stats Core 3: NUR 3114 Applied Regression for Health Science Research</p> <p>Core 4-NUR 3288 -Research Measurement</p> <p>Core 5-NUR 3289 Intervention Development</p> <p>PSI NUR 3071 Apprenticeship Practicum #3</p>	2 3 2 2 1 T 10			
2	1	<p>NUR 3010 Dissertation Credits</p> <p>PSI IM #1--Intensive Methods #1</p> <p>PSI CE #1—Content Expertise #1: State of the Science- Research</p> <p>Core 6-NUR 3290 -Adv. Quant. Analytic Methods Seminar</p> <p>PSI NUR 3071 Apprenticeship Practicum #4</p>	1 2 2 3 1 T 9	<p>Analyze data</p> <p>Continue analysis, begin publication write-up, Submit **abstract for presentation</p> <p>Publish Apprenticeship **Results paper</p>	<p>Citation Index (may lead to **topical publication) *Grant abstract/aims draft (*F31 or comparable mechanism)</p> <p>Grant Abstract/aims finalize, proposal development</p> <p>*Grant submission</p> <p>Pilot study thru IRB</p>	
	2	<p>NUR 3010 Dissertation Credits</p> <p>Core 8-NUR 3292 Responsibilities/Activities Scientist II</p> <p>Core 9-NUR 3293-Art & Science of Teaching</p> <p>PSI STAT-Advanced Stats</p> <p>PSI NUR 3071 Apprenticeship Practicum #5</p>	2 2 2 2 1 T 9			
	3	<p>NUR 3010 Dissertation Credits</p> <p>PSI CE #2—Content Expertise #2</p> <p>PSI IM #2—Intensive Methods #2</p> <p>C5. Additional PSI</p> <p>CPSI NUR 3071 Apprenticeship Practicum #6</p>	2 2 2 3 1 T 10			
3	1	<p>NUR 3010 Dissertation Credits</p> <p>PSI CE #3 –Content Expertise #3</p> <p>PSI CE #4 –Content Expertise #4</p> <p>C5. Additional PSI</p>	2 2 2 3 T 9			Conduct pilot
	2	<p>NUR 3010 Dissertation Credits</p> <p>C5 Additional PSI</p> <p>C5 EXTRA PSI</p>	5 2 2 T 9			*Publish pilot/submit conference COMP EXAM & OVERVIEW MID YR 3
	3	Full Time Dissertation	FTD	-----		Full Time Dissertation
<i>Total 74 credits</i>						
4	1	Full Time Dissertation	FTD	-----		Full Time Dissertation
	2	Full Time Dissertation	FTD	-----		Full Time Dissertation
	3	Full Time Dissertation	FTD	-----		DEFEND END YR 04 *Submit Results paper for publication

BSN TO PHD CURRICULUM PLAN (5-Year Example)

YR	Term	Courses	Cr.	Mentored Research Experiences		
		Course titles	Cr.	Apprenticeship Practicum** NUR 3071--6 cr total		Dissertation Project* NUR 3010-12 cr total
1	1	Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1 Core 1 —NUR 3285 Philosophical Underpinnings Core 7 —NUR 3291 Responsibilities/Activities Scientist I PSI NUR 3071 Apprenticeship Practicum #1-	3 3 2 1 T 9	Citation index from mentors project area (may lead to **topical publication)	Throughout the Apprenticeship Practicum the student affiliates with the mentors active research team (participates in team meetings and all components of responsible conduct of research; presents apprenticeship study plan, results, and dissemination to the team, attends scientific area or center offerings and rounds, etc.)	
	2	Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2 Core 2 —NUR 3286 Theoretical Foundations Core 3 —NUR 3287 Research Design PSI NUR 3071 Apprenticeship Practicum #2	3 3 1 T 10			
	3	PSI#1—Prof Dev Stats Core 3: NUR 3114 Applied Regression for Health Science Research Core 4 -NUR 3288 -Research Measurement Core 5 -NUR 3289 Intervention Development PSI NUR 3071 Apprenticeship Practicum #3	2 3 2 2 1 T 10	Conduct apprenticeship study	Prelims PRELIM EXAM END YR 01	
2	1	NUR 3010 Dissertation Credits PSI IM #1—Intensive Methods #1 PSI CE #1—Content Expertise #1: State of the Science- Research Core 6 -NUR 3290 -Adv. Quant. Analytic Methods Seminar PSI NUR 3071 Apprenticeship Practicum #4	1 2 2 3 1 T 9	Analyze data		Citation Index (may lead to **topical publication) *Grant abstract/aims draft (*F31 or comparable mechanism)
	2	NUR 3010 Dissertation Credits Core 8 -NUR 3292 Responsibilities/Activities Scientist II Core 9 -NUR 3293-Art & Science of Teaching PSI STAT-Advanced Stats PSI NUR 3071 Apprenticeship Practicum #5	2 2 2 2 1 T 9	Continue analysis, begin publication write-up, Submit **abstract for presentation		Grant Abstract/aims finalize, proposal development *Grant submission
	3	NUR 3010 Dissertation Credits PSI CE #2—Content Expertise #2 PSI IM #2—Intensive Methods #2 C5. Additional PSI CPSI NUR 3071 Apprenticeship Practicum #6	2 2 2 3 1 T 10	Publish Apprenticeship **Results paper		Pilot study thru IRB
3	1	NUR 3010 Dissertation Credits PSI CE #3 –Content Expertise #3 PSI CE #4 –Content Expertise #4 C5. Additional PSI	2 2 2 3 T 9			Conduct pilot
	2	NUR 3010 Dissertation Credits C5 Additional PSI C5 EXTRA PSI	5 2 2 T 9			*Publish pilot/submit conference COMP EXAM & OVERVIEW MID YR 3
	3	Full Time Dissertation	FTD	-----		Full Time Dissertation
Total 74 credits						
4	1	Full Time Dissertation	FTD	-----		Full Time Dissertation
	2	Full Time Dissertation	FTD	-----		Full Time Dissertation
	3	Full Time Dissertation	FTD	-----		Full Time Dissertation
5	1	Full Time Dissertation	FTD	-----		Full Time Dissertation
	2	Full Time Dissertation	FTD	-----		Full Time Dissertation
	3	Full Time Dissertation	FTD	-----		DEFEND END YR 05 *Submit Results paper for publication

MSN TO PHD CURRICULUM PLAN (<3-Year Plan) **IF GAP ANALYSIS INDICATES CONTENT Core 3,4,5,9 accomplished in prior MSN**

40 cr = Core 1,2,6,7,8 (13 cr); Stats Core (9 cr); Dissertation (12 cr total) and Apprenticeship Practicum (6 cr total).

then 4 cr of C1. PSI Intensive Methods Courses

then 4 cr of any Additional PSI C.1-C.4. TOTAL 48 cr. NOTE MORE CREDITS MAY BE TAKEN IF REQUESTED/BENEFICIAL

YR	Term	Courses	Cr.	Mentored Research Experiences		
		Course titles	Cr.	Apprenticeship Practicum* (6 cr total)		Dissertation Project (12 cr total)
1	1	Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1	3	Citation index from mentors project area (may lead to **topical publication)	Throughout the Apprenticeship Practicum the student affiliates with the mentors active research team (participates in team meetings and all components of responsible conduct of research; presents apprenticeship study plan, results, and dissemination to the team, attends scientific area or center offerings and rounds, etc.)	Citation Index (may lead to **topical publication) *Grant abstract/aims draft (*F31 or comparable mechanism)
		Core 1—NUR 3285 Philosophical Underpinnings	3			
		Core 7—NUR 3291 Responsibilities/Activities Scientist I PSI NUR 3071 Apprenticeship Practicum	2 1 T9			
	2	Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2	3	Conduct apprenticeship study		
		NUR 3010 Dissertation Credits	1			
		Core 2—NUR 3286 Theoretical Foundations Core 8—NUR 3292 Responsibilities/Activities Scientist II PSI NUR 3071 Apprenticeship Practicum	3 2 1 T10			
	3	Dissertation Credits	2	Analyze data, Submit **abstract for presentation		
		Stats Core 3: NUR 3114 Applied Regression for Health Science Research	3			
		PSI NUR 3071 Apprenticeship Practicum PSI Additional	2 2 T9			
2	1	NUR 3010 Dissertation Credits	3	Publish Apprenticeship **Results paper		Conduct pilot **Publish pilot/submit conference
		PSI IM #2—Intensive Methods #2	2			
		Core 6—NUR 3290 -Adv. Quant. Analytic Methods Seminar PSI NUR 3071 Apprenticeship Practicum	3 2 T10			
	2	PSI Additional	2			
		PSI IM #1--Intensive Methods #1 NUR 3010 Dissertation Credits	2 6 T10			
3	Total 48 credits					
3	1	Full Time Dissertation	FTD			Full Time Dissertation
	2	Full Time Dissertation	FTD			DEFEND *SUBMIT RESULTS PAPER

If gap analysis indicates need, Core 3 NUR 3287 Res Des & Meth in a Spring term, Core 4 NUR 3288 Res Meas in a Summer Term, Core 5 NUR 3298 Interv Dev in a Summer term, Core 9 NUR 3293 Art & Sci Teach/Learn in a Spring term

MSN TO PHD CURRICULUM PLAN (<4-year Plan) **IF GAP ANALYSIS INDICATES CONTENT Core 3,4,5,9 NOT accomplished in prior MSN**

40 cr = Core 1,2,6,7,8 (13 cr); Stats Core (9 cr); Dissertation (12 cr total) and Apprenticeship Practicum (6 cr total).

cr.

Core 3,4,5,9 = 9 credits = 49 credits

PSI in IM or Content Expertise 4 credits = 53 credits; NOTE MORE CREDITS MAY BE TAKEN IF REQUESTED/BENEFICIAL

YR	Term	Courses	Cr.	Mentored Research Experiences		
				Apprenticeship Practicum* (6 cr total)		Dissertation Project (12 cr total)
1	1	Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1	3	Citation index from mentors project area (may lead to **topical publication)	Throughout the Apprenticeship Practicum the student affiliates with the mentors active research team (participates in team meetings and all components of responsible conduct of research; presents apprenticeship study plan, results, and dissemination to the team, attends scientific area or center offerings and rounds, etc.)	Citation Index (may lead to **topical publication) *Grant abstract/aims draft (*F31 or comparable mechanism)
		Core 1—NUR 3285 Philosophical Underpinnings	3			
		Core 7—NUR 3291 Responsibilities/Activities Scientist I PSI NUR 3071 Apprenticeship Practicum	2 $\frac{1}{T} 9$			
	2	Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Sciences 2	3	Purpose and aims for apprenticeship study using mentors' data, develop study proposal		Grant Abstract/aims finalize, proposal development
		Core 2—NUR 3286 Theoretical Foundations	3			
		Core 3—NUR 3287 Research Design (or PSI) PSI NUR 3071 Apprenticeship Practicum	3 $\frac{1}{T} 10$			
	3	Stats Core 3: NUR 3114 Applied Regression for Health Science Research	3	Conduct apprenticeship study		Grant submission PRELIM EXAM END YR 01
		PSI NUR 3071 Apprenticeship Practicum	1			
		Core 4-NUR 3288 -Research Measurement (Core 5-NUR 3289 Intervention Development PSI IM or Content Expertise	2 2 $\frac{2}{T} 10$			
2	1	NUR 3010 Dissertation Credits	2	Analyze data, Submit **abstract for presentation	Pilot study thru IRB	
		Core 6-NUR 3290 -Adv. Quant. Analytic Methods Seminar	3			
		PSI NUR 3071 Apprenticeship Practicum PSI IM or Content Expertise	2 $\frac{2}{T} 9$			
	2	Core 8-NUR 3292 Responsibilities/Activities Scientist II	2	Publish Apprenticeship **Results paper	Conduct pilot	
		Core 9-NUR 3293 -Art & Science of Teaching	2			
		NUR 3010 Dissertation Credits PSI IM or Content Expertise PSI NUR 3071 Apprenticeship Practicum	2 2 $\frac{1}{T} 9$			
3	PSI IM or Content Expertise	2		**Publish pilot/submit conference COMP EXAM & OVERVIEW		
	NUR 3010 Dissertation Credits	$\frac{8}{T} 10$				
<i>Total 57 Credits</i>						
3	1	Full Time Dissertation	FTD			Full Time Dissertation
	2	Full Time Dissertation	FTD			Full Time Dissertation
	3	Full Time Dissertation	FTD			Full Time Dissertation
4	1	Full Time Dissertation	FTD			DEFEND *SUBMIT RESULTS PAPER

If gap analysis indicates need, Core 3 NUR 3287 Res Des & Meth in a Spring term YR1, Core 4 NUR 3288 Res Meas in a Summer Term YR 1, Core 5 NUR 3298 Interv Dev in a Summer term YR 1, Core 9 NUR 3293 Art & Sci Teach/Learn in a Spring term YR 2

OVERALL Expected Scholarly Activity of Graduates from the PhD Program:

Students are expected to have:

1. *prepared and submitted a grant application (F31 or comparable funding mechanism);
2. **submitted a minimum of two manuscripts for publication (two data based as first author--one from the apprenticeship, one from the dissertation pilot work; encourage one topical area non-data based); and submit final Results paper
3. completed all milestones including the preliminary examination; approval of dissertation topic by the dissertation committee; comprehensive examination and overview; and defense of the dissertation;
4. presented papers/posters at regional and national scientific meetings;
5. participated in a mentored teaching practicum;
6. become prepared for an independent research career in an academic and/or clinical setting

**Gap Analysis--Needs Assessment Checklist for MSN – PhD Students
Includes Prior Clinical or Research Experience or Coursework at the Graduate level**

Step 1) Student should complete Section I. after admission and before first meeting with advisor*

- For courses already taken, request that the student provide a syllabus to be presented to the advisor during the Step 2 meeting

* For international student, send after acceptance & before arriving in the US to facilitate their ability to access course syllabi and bring copies with them

Step 2) Student and advisor should review and discuss curriculum and development gaps, and complete Section II. . For courses that the advisor and student determine may fulfill a course in our curriculum, the advisor will contact the instructor teaching the course, provide the syllabus of the prior course, and ask for their determination of equivalence. Keep documentation on course acceptance/non-acceptance in student record. Also keep this completed Gap Analysis in student record.

Step 3) Advisor develops and documents the personalized curriculum and development plan with the student. Advisor then enters planned coursework into the STEP program in order to populate course enrollment projections.

I. Completed by Student

Research Core – Include Comments in the Space below Each Item

A. Knowledge Development

1. Structure of knowledge or philosophy of science

2. Nursing theory as it relates to research

B. Methods & Analysis

1. Research design & methods
 - a. Quantitative studies

 - b. Qualitative studies

 - c. Interventions or clinical trials

2. Basic, Applied, and Translational Science Studies
 - a. Experience / coursework with instrumentation
Explain in detail the experience and objectives of the course.

 - b. Experience / coursework in statistics or data management Explain in detail the experience and objectives of the course

C. Professional Development

1. IRB

2. Manuscript writing

3. Grant writing

II. Completed Collaboratively by Advisor and Student during Curriculum Planning Meeting

New		Prior	
Course number, name and credits		Course number, name and credits	
KD--Core 1—NUR 3285 Philosophical Underpinnings of Nursing Research (3 cr)			
KD--Core 2—NUR 3286 Theoretical Foundations for Research (3 cr)			
MA--Core 3—NUR 3287 Research Design and Methods (3 cr)			
MA--Core 4 –NUR 3288 Research Measurement (2 cr)			
MA--Core 5—NUR 3289 Intervention Development (2 cr)			
MA-- Core 6—NUR 3290 Advanced Quantitative Analytic Methods Seminar (3 cr; 1 cr didactic, 2 cr lab)			
PD--Core 7 – NUR 3291 Responsibilities and Activities of Scientists I (2 cr)			
PD--Core 8—NUR 3292 Responsibilities and Activities of Scientists II--- (2 cr)			
PD--Core9—NUR 3293 Art and Science of Teaching and Learning (2 cr)			
Stats Core 1: NUR 3112 Applied Parametric and Non-Parametric Statistics For The Health Sciences 1 (3 cr) Stats Core 2: NUR 3113 Applied Parametric and Non-Parametric Statistics for the Health Stats Sciences 2 (3 cr) Stats Core 3: NUR 3114 Applied Regression for Health Science Research (3 cr)			
FTD			
Dissertation 12 cr			
Apprenticeship Practicum 6 cr			
PSI 23 cr			
Intensive Methods 4 cr			
Intensive Prof Dev 2 cr			
Advanced Stats 2 cr			

Content Expertise 8 cr			
Additional PSI 7 cr			