



## Program Guidebook

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### Master of Science, Nursing - Nursing Informatics (BSN to MSN)

*The Master of Science degree in Nursing Informatics is a competency-based program that prepares graduates for a rewarding career as a specialist in the field of Nursing Informatics. Informatics Nurse Specialists have the knowledge, skills, and expertise to design, develop, implement, and evaluate Health Information Systems that support the delivery of safe, efficient and high-quality healthcare services. Students in the WGU Master of Science Nursing Informatics program apply systems-thinking strategies to transform data to wisdom for understanding the determinants and distribution of healthcare needs in diverse populations. This program prepares students to select and use contemporary technologies to collaborate with interprofessional teams for the development and implementation of health education programs, evidence-based practices, and point-of-care policies. Through the integration of nursing science, computer science and information science, students will develop competencies for performing advanced informatics skills to improve health outcomes, such as data capture, management, mining, and analysis. This masters degree program supports students in applying their knowledge and conceptual understanding of nursing informatics to real-world situations where the use of information and communication technologies are essential for delivering and coordinating care across multiple settings. Graduates of the WGU Master of Science Nursing Informatics program are prepared to gather, document, and analyze outcome data that will serve as a foundation for data-driven decisions that inform practice processes and the implementation of interventions or strategies to improve healthcare outcomes.*

## Understanding the Competency-Based Approach

Practically speaking, how do competency-based programs like those offered at Western Governors University (WGU) work? Unlike traditional universities, WGU does not award degrees based on completion of a certain number of credit hours or a certain set of required courses. Instead, you will earn your degree by demonstrating your skills, knowledge, and understanding of important concepts.

Progress through a degree program is governed not by the amount of time you spend in class but by your ability to demonstrate mastery of competencies as you complete required courses. Of course, you will need to engage in learning experiences as you review competencies or develop knowledge and skills in areas in which you may be weak. To help you acquire the knowledge and skills you need to complete your courses and program, WGU provides a rich array of learning resources. Your program mentor will work closely with you to help you understand the competencies required for your program and to help you create a schedule for completing your courses. You will also work closely with course instructors as you engage in each of your courses. As subject matter experts, course instructors will guide you through the content you must master to pass the course assessments.

The benefit of this competency-based system is that enables students who are knowledgeable about a particular subject to make accelerated progress toward completing a degree, even if they lack college experience. You may have gained skills and knowledge of a subject while on the job, accumulated wisdom through years of life experience, or already taken a course on a particular subject. WGU will award your degree based on the skills and knowledge that you possess and can demonstrate—not the number of credits hours on your transcript.

## Accreditation

Western Governors University is the only university in the history of American higher education to have earned accreditation from four regional accrediting commissions. WGU's accreditation was awarded by (1) the Northwest Commission on Colleges and Universities, (2) the Higher Learning Commission of the North Central Association of Colleges and Schools, (3) the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, and (4) the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges. The university's accreditation status is now managed by the Northwest Commission on Colleges and Universities (NWCCU), which reaffirmed WGU's accreditation in February February 2020. The WGU Teachers College is accredited at the initial-licensure level by the Council for the Accreditation of Educator Preparation (CAEP) and by the Association for Advancing Quality in Educator Preparation (AAQEP). The nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). The Health Information Management program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). The College of Business programs are accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

## The Degree Plan

The focus of your program is your personalized Degree Plan. The Degree Plan is a detailed blueprint of the courses you will need to complete in order to earn your degree. The Degree Plan also lays out the accompanying learning resources and assessments that compose your program. The list of courses in the Degree Plan is often referred to as the standard path. The amount of time it takes to complete your program depends on both the amount of new information you need to learn and the amount of time you plan to devote each week to study. Your program mentor and course instructors will help you assess your strengths and development needs to establish a study plan.

Students vary widely in the specific skills and information they need to learn. For example, some students may be highly knowledgeable in a particular subject matter and would not need to engage in new learning opportunities. Other students may find that portions of the program require them to learn new information and that they need to take an online class or participate in a study module to acquire the knowledge and skills needed to fulfill program competencies in that area. Some individuals may be able to devote as little

as 15–20 hours per week to the program, while others may need to devote more time. For this reason, pre-assessments are there to help your program mentor form a profile of your prior knowledge and create a personalized Degree Plan.

## How You Will Interact with Faculty

At WGU, faculty serve in specialized roles, and they will work with you individually to provide the guidance, instruction, and support you will need to succeed and graduate. As a student, it is important for you to take advantage of this support. It is key to your progress and ultimate success. Upon your enrollment, you will be assigned a program mentor—an expert in your field of study who will provide you with regular program-level guidance and support from the day you start until the day you graduate. Your program mentor will set up regular telephone appointments (weekly at first) with you, which you will be expected to keep. The mentor will review program competencies with you and work with you to develop a plan and schedule for your coursework. Your program mentor will serve as your main point of contact throughout your program—helping you set weekly study goals, recommending specific learning materials, telling you what to expect in courses, and keeping you motivated. In addition to regular calls, your program mentor is available to help you resolve questions and concerns as they arise.

You will also be assigned to a course instructor for each course. Course instructors are doctoral-level subject matter experts who will assist your learning in each individual course. When you begin a new course, your assigned course instructor will actively monitor your progress and will be in touch to offer one-on-one instruction and to provide you with information about webinars, cohort sessions, and other learning opportunities available to help you acquire the competencies you need to master the course. Your course instructor can discuss your learning for the course, help you find answers to content questions, and give you the tools to navigate the course successfully. In addition, you will communicate with course instructors by posting in the online learning community and participating in live discussion sessions such as webinars and cohorts.

For many of the courses at WGU, you will be required to complete performance assessments. These include reports, papers, presentations, and projects that let you demonstrate your mastery of the required competencies. A separate group of faculty members, called evaluators, will review your work to determine whether it meets requirements. Evaluators are also subject matter experts in their field of evaluation. If your assessment needs further work before it “passes,” these evaluators, who review your work anonymously, will provide you with instructional feedback to help you meet evaluation standards and allow you to advance.

## Connecting with Other Mentors and Fellow Students

As you proceed through your Degree Plan, you will have direct contact with multiple faculty members. These communications can take a variety of forms, including participation in one-on-one discussions, chats in the learning communities, and live cohort and webinar opportunities. As a WGU student, you will have access to your own personal MyWGU Student Portal, which will provide a gateway to your courses of study, learning resources, and learning communities where you will interact with faculty and other students.

The learning resources in each course are specifically designed to support you as you develop competencies in preparation for your assessments. These learning resources may include reading materials, videos, tutorials, cohort opportunities, community discussions, and live discussions that are guided by course instructors who are experts in their field. You will access your program community during your orientation course to network with peers who are enrolled in your program and to receive continued support through professional enrichment and program-specific chats, blogs, and discussions. WGU also provides Student Services associates to help you and your program mentor solve any special problems that may arise.

## Orientation

The WGU orientation course focuses on acquainting you with WGU's competency-based model, distance education, technology, and other resources and tools available for students. You will also utilize WGU program and course communities, participate in activities, and get to know other students at WGU. The orientation course must be completed before you can start your first term at WGU.

## **Transferability of Prior College Coursework**

Because WGU is a competency-based institution, it does not award degrees based on credits but rather on demonstration of competency. However, if you have completed college coursework at another accredited institution, or if you have completed industry certifications, you may have your transcripts and certifications evaluated to determine if you are eligible to receive some transfer credit. The guidelines for determining what credits will be granted varies based on the degree program. Students entering graduate programs must have their undergraduate degree verified before being admitted to WGU. To review more information in regards to transfer guidelines based on the different degree programs, you may visit the Student Handbook found at the link below and search for "Transfer Credit Evaluation."

[Click here for the Student Handbook](#)

WGU does not waive any requirements based on a student's professional experience and does not perform a "résumé review" or "portfolio review" that will automatically waive any degree requirements. Degree requirements and transferability rules are subject to change in order to keep the degree content relevant and current.

Remember, WGU's competency-based approach lets you take advantage of your knowledge and skills, regardless of how you obtained them. Even when you do not directly receive credit, the knowledge you possess may help you accelerate the time it takes to complete your degree program.

## **Continuous Enrollment, On Time Progress, and Satisfactory Academic Progress**

WGU is a "continuous enrollment" institution, which means you will be automatically enrolled in each of your new terms while you are at WGU. Each term is six months long. Longer terms and continuous enrollment allow you to focus on your studies without the hassle of unnatural breaks between terms that you would experience at a more traditional university. At the end of every six-month term, you and your program mentor will review the progress you have made and revise your Degree Plan for your next six-month term.

WGU requires that students make measurable progress toward the completion of their degree programs every term. We call this "On-Time Progress," denoting that you are on track and making progress toward on-time graduation. As full-time students, graduate students must enroll in at least 8 competency units each term, and undergraduate students must enroll in at least 12 competency units each term. Completing at least these minimum enrollments is essential to On-Time Progress and serves as a baseline from which you may accelerate your program. We measure your progress based on the courses you are able to pass, not on your accumulation of credit hours or course grades. Every time you pass a course, you are demonstrating that you have mastered skills and knowledge in your degree program. For comparison to traditional grading systems, passing a course means you have demonstrated competency equivalent to a "B" grade or better.

WGU assigns competency units to each course in order to track your progress through the program. A competency unit is equivalent to one semester credit of learning. Some courses may be assigned 3 competency units while others may be as large as 12 competency units.

Satisfactory Academic Progress (SAP) is particularly important to students on financial aid because you must achieve SAP in order to maintain eligibility for financial aid. We will measure your SAP quantitatively by reviewing the number of competency units you have completed each term. In order to remain in good

academic standing, you must complete at least 66.67% of the units you attempt over the length of your program—including any courses you add to your term to accelerate your progress. Additionally, during your first term at WGU you must pass at least 3 competency units in order to remain eligible for financial aid. We know that SAP is complex, so please contact a financial aid counselor should you have additional questions. \*Please note: The Endorsement Preparation Program in Educational Leadership is not eligible for federal financial aid.

## Courses

Your Degree Plan includes courses needed to complete your program. To obtain your degree, you will be required to demonstrate your skills and knowledge by completing the assessment(s) for each course. In general there are two types of assessments: performance assessments and objective assessments. Performance assessments contain, in most cases, multiple scored tasks such as projects, essays, and research papers. Objective assessments include multiple-choice items, multiple-selection items, matching, short answer, drag-and-drop, and point-and-click item types, as well as case study and video-based items. Certifications verified through third parties may also be included in your program. More detailed information about each assessment is provided in each course of study.

## Learning Resources

WGU works with many different educational partners, including enterprises, publishers, training companies, and higher educational institutions, to provide high-quality and effective learning resources that match the competencies you are developing. These vary in type, and may be combined to create the best learning experience for your course. A learning resource can be an e-textbook, online module, study guide, simulation, virtual lab, tutorial, or a combination of these. The cost of most learning resources are included in your tuition and Learning Resource Fee. They can be accessed or enrolled for through your courses. Some degree-specific resources are not covered by your tuition, and you will need to cover those costs separately. WGU also provides a robust library to help you obtain additional learning resources, as needed.

Mobile Compatibility:

The following article provides additional details about the current state of mobile compatibility for learning resources at WGU. It includes a list that can be referenced to determine the mobile friendliness of all core course materials used in a program.

[Student Handbook article: Can I use my mobile device for learning resources?](#)

## Standard Path

As previously mentioned, competency units (CUs) have been assigned to each course in order to measure your academic progress. If you are an undergraduate student, you will be expected to enroll in a minimum of 12 competency units each term. Graduate students are expected to enroll in a minimum of 8 competency units each term. A standard plan for a student for this program who entered WGU without any transfer units would look similar to the one on the following page. Your personal progress can be faster, but your pace will be determined by the extent of your transfer units, your time commitment, and your determination to proceed at a faster rate.

## Standard Path for Master of Science, Nursing - Nursing Informatics (BSN to MSN)

Course Description	CUs	Term
Professional Presence and Influence	2	1
Essentials of Advanced Nursing Roles and Interprofessional Practice	2	1
Quality Outcomes in a Culture of Value-Based Nursing Care	2	1
Informatics for Transforming Nursing Care	3	1
Leadership and Management in Complex Healthcare Systems	3	2
Advancing Evidence-Based Innovation in Nursing Practice	3	2
Advanced Pathopharmacological Foundations	3	2
Advanced Health Assessment for Patients and Populations	3	3
Foundations in Nursing Informatics	2	3
Data Science and Analytics	2	3
Data Modeling and Database Management Systems	2	3
Informatics System Analysis and Design	3	4
Nursing Informatics Field Experience	4	4
Nursing Informatics Capstone	2	4

### Changes to Curriculum

WGU publishes an Institutional Catalog, which describes the academic requirements of each degree program. Although students are required to complete the program version current at the time of their enrollment, WGU may modify requirements and course offerings within that version of the program to maintain the currency and relevance of WGU's competencies and programs. When program requirements are updated, students readmitting after withdrawal from the university will be expected to re-enter into the most current catalog version of the program.

# Areas of Study for Master of Science, Nursing - Nursing Informatics (BSN to MSN)

The following section includes the areas of study in the program, with their associated courses. Your specific learning resources and level of instructional support will vary based on the individual competencies you bring to the program and your confidence in developing the knowledge, skills, and abilities required in each area of the degree. The Degree Plan and learning resources are dynamic, so you need to review your Degree Plan and seek the advice of your mentor regarding the resources before you purchase them.

## MSN Core

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### Professional Presence and Influence

Professional Presence and Influence is a masters-level course designed to guide students towards an enhanced state of presence, where therapeutic relationships are built between nurse and patient. Students will learn techniques for self-care practices that result in enhanced mental and physical wellbeing and that ensure ethically-generated patient care. Presence is an intrapersonal and interpersonal quality that allows the nurse to relate to others and to be aware of the world around them. The characteristics of presence, which include holism, intimacy, sensitivity and adaptability, create a heightened sense of awareness that fosters therapeutic relationships between the nurse and patient. Developing a mindful, authentic presence is central to health and spiritual practices in several cultures and a major element of leadership. Students will intentionally develop a focused mindfulness practice that will influence patient outcomes and lead to conditions that create joy in the workplace.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate promotes a healthy work environment by demonstrating a professional presence that includes self-awareness characteristics.*
- *The graduate develops solutions and strategies that build positive relationships and promote mindfulness in the workplace.*
- *The graduate recommends social communication strategies and technologies to promote a sense of caring and belonging.*
- *The graduate applies the principles of improvement science to solve the problem of hostility in the workplace and initiate organizational change designed to promote health and joy in the workplace.*
- *The graduate implements the principles of academic writing to produce clear, concise, and evidence-based written communications.*

### Essentials of Advanced Nursing Roles and Interprofessional Practice

Essentials of Advanced Nursing Roles and Interprofessional Practice explores the essential characteristics needed as an advanced practice leader, educator, practitioner, or informatics specialist. Students will develop social and emotional intelligence skills to facilitate interprofessional collaboration and effectively manage change. Continuous quality improvement initiatives and the importance of making data-based decisions that are grounded in the evidence are introduced. The integral role of technology in supporting the workflow of nurses and improving healthcare outcomes is explored. Students will learn the elements of project management, including oversight of interdepartmental projects and managing risk, scope, and the project team. This course will prepare nurses to advocate for policy changes designed to improve patient and population health.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate recommends strategies for practicing lifelong learning skills to encourage the continuous improvement essential for practicing as an advanced nursing professional.*
- *The graduate recommends legal and regulatory policies that advocate for improved health outcomes in patients and populations.*
- *The graduate analyzes the roles and interaction of interprofessional team members to assess the resulting impact on healthcare outcomes.*

- *The graduate analyzes organizational performance data to guide recommendations for improving healthcare outcomes and disseminating results to a professional community.*

## **Quality Outcomes in a Culture of Value-Based Nursing Care**

Quality Outcomes in a Culture of Value-Based Nursing Care incorporates current standards of quality and safety within the context of value-based care. In a value-based healthcare system, the benefits are derived from measuring health outcomes against the cost of delivering the outcomes. These benefits are then extended to patients, providers, payers, suppliers, and society as a whole. This course introduces new healthcare delivery models, which stress a team-oriented approach to patient care and sharing of patient data so that care is coordinated, and outcomes can be measured easily. Emphasis is placed on performance and quality improvement methods that underlie value-based nursing care. The nurse in advanced practice today must exemplify the standards of quality and safety and be prepared to lead the delivery of value-based patient-centered care.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate analyzes the culture of continuous quality improvement and the provision of value-based care to optimize patient outcomes using a systems-thinking analytic approach.*
- *The graduate develops a systematic process that incorporates quality measures and benchmarks to assess organizational strengths and vulnerabilities.*
- *The graduate integrates performance and process improvement methodologies to develop solutions for identified quality and safety gaps in the practice setting.*
- *The graduate establishes measurable metrics and processes to evaluate the effectiveness of value-based care strategies and initiatives.*

## **Informatics for Transforming Nursing Care**

Informatics for Transforming Nursing Care integrates nursing science with multiple information and analytical sciences to identify, define, manage, and communicate data, information, knowledge, and wisdom in nursing practice. Students will acquire knowledge and skills to apply informatics concepts, communications, and data that are critical to facilitating interprofessional data-driven decision-making. It is designed to build competence in the use of patient- and population-based applications that inform and support the transformation of nursing care delivery toward a future of value-based quality nursing care that improves health outcomes. This course aligns theoretical concepts with practical applications of informatics and is consistent with the functional areas and responsibilities of informatics nurses as defined by American Nurses Association Scope and Standards for nursing informatics.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate analyzes the theoretical and conceptual underpinnings of the nursing informatics scope and standards to improve patient experience and health outcomes.*
- *The graduate determines how technology and informatics can be optimized to improve the patient experience and lower healthcare costs.*
- *The graduate analyzes core administrative systems to support the management of safe, cost-effective, and high-quality healthcare.*
- *The graduate analyzes data from population-based systems to mitigate public health threats and decrease incidence of disease.*
- *The graduate designs data collection tools and processes to capture, analyze, and report health indicators and outcomes.*
- *The graduate refines data to visually represent, forecast, monitor, and report progress in meeting healthcare outcomes.*

## **Leadership and Management in Complex Healthcare Systems**

Leadership and Management in Complex Healthcare Systems prepares graduate nurses to be thoughtful strategists and informed decision makers who serve as strong leaders in high performing healthcare systems. Students develop competencies for managing diverse teams in complex systems, monitoring and measuring organizational performance, allocating financial and human resources, and leading change towards a transformed healthcare system. Additionally, students acquire the knowledge and skills to become full partners with other healthcare professionals by demonstrating



nurse contributions toward high-quality care to patients and populations, while working collaboratively with interprofessional teams.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate determines the effective leadership skills and approaches required to navigate a diverse staff in a changing healthcare environment.*
- *The graduate creates communication and change management plans to foster a culture of innovation.*
- *The graduate analyzes data to measure progress in meeting organizational performance indicators in complex healthcare systems.*
- *The graduate determines system-level factors necessary to support and empower interprofessional teams.*
- *The graduate validates key performance indicators to measure the impact of nursing care on patient and population outcomes.*
- *The graduate proposes a strategic business plan to start a nurse-managed practice.*

### **Advancing Evidence-Based Innovation in Nursing Practice**

Advancing Evidence-Based Innovation in Nursing Practice introduces students to the dynamic union of healthcare innovation and evidence. Core competencies and behaviors required to be a nurse innovator are discussed. Strategies for measuring innovation at various system levels are presented, as well as techniques for synthesizing and disseminating evidence to advance innovation in healthcare. The skills needed to appraise the quality of diverse sources of evidence are presented within the framework of evidence-based practice. This course focuses on identifying new and emerging sources of evidence that can inform, translate, and scale the complexity of leading innovation in healthcare organizations. Students will experience building communities of practice for collaboratively developing innovative practices and policies designed to improve the health of populations and enhance the patient experience of care.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate analyzes evidence from research, clinical expertise, and patient experiences to contribute to the innovation of healthcare practices and policies*
- *The graduate incorporates research strategies and processes to search and review relevant evidence from credible sources.*
- *The graduate evaluates innovative best practices that support outcomes-driven healthcare practices.*
- *The graduate incorporates new evidence from big data and emerging technologies to design innovative practices.*
- *The graduate applies the theory of disruption when developing innovative strategies to improve healthcare outcomes.*
- *The graduate synthesizes credible sources of evidence to propose innovative patient care practice guidelines, organizational goals and strategies, and population-based care policies.*

### **Advanced Pathopharmacological Foundations**

Advanced Pathopharmacological Foundations provides advanced practice nurses foundational knowledge in the many pathologies encountered in practice today. Advancing from the cellular to the body system level, this course examines the pathologies of common conditions seen in healthcare today. Consideration is also given to the human affective response to alterations in health. There are no prerequisites for this course.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate assesses alterations in cellular and genetic composition to determine the body's self-defense mechanisms to maintain homeostasis.*
- *The graduate analyzes the etiology and pathophysiological alterations associated with common conditions across the lifespan to determine appropriate treatment plans.*
- *Connecting Pathology with Disease Manifestation – The graduate analyzes pathopharmacological concepts and mechanisms of common conditions to guide clinical decision making.*

- *The graduate assesses developmental, racial, ethnic, and cultural manifestations of pathopharmacology to determine their influence on patient outcomes.*
- *The graduate distinguishes between relevant and irrelevant assessment findings to minimize pathologies and manage pharmacotherapeutics to promote optimal patient outcomes.*
- *The graduate traces human responses to disease processes across the lifespan to identify holistic treatment options.*

## **Advanced Health Assessment for Patients and Populations**

Advanced Health Assessment of Patients and Populations builds on prior physical health assessment knowledge and skills acquired during undergraduate studies by focusing on the advanced assessment of biopsychosocial and sociocultural contexts in patients and populations across the life span. This course emphasizes the use of a comprehensive health promotion, disease prevention, and health restoration model to address health concerns in patients and communities. Students will acquire advanced assessment knowledge and skills for clinical interviewing, focused history taking, critical diagnostic reasoning, and clinical decision-making using a problem-focused framework that integrates authentic experiences with practical knowledge of health patterns in patients and communities.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate assesses the physical, biopsychosocial, cultural, spiritual, and environmental elements to improve health in patients and populations.*
- *The graduate distinguishes comprehensive assessment strategies appropriate to evaluating the health of diverse patients across the life span.*
- *The graduate analyzes assessment data to create health promotion plans for patients and communities.*
- *The graduate performs a focused physical examination to identify applicable differential diagnoses based on evidence from the collected data.*
- *The graduate analyzes epidemiologic methods to assess the health of communities and populations.*
- *The graduate constructs strategies to develop disease prevention and control interventions.*

## **Nursing Informatics Specialty**

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### **Foundations in Nursing Informatics**

This course addresses the integration of technology to improve and support nursing practice. It provides nurses with a foundational understanding of nursing informatics theory, practice, and applications. Topics include the role of nursing in informatics; use of computer technology for clinical documentation, communication, and workflows; problem identification; project implementation; and best practices.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate applies information technology concepts, including life cycle, workflow, roles, and project management.*
- *The graduate applies standardized clinical terminologies, taxonomies, and decision support tools to identify problems, needs, issues, and opportunities for improvement*

### **Data Science and Analytics**

This course addresses the interdisciplinary and emerging field of data science in healthcare. Candidates learn to combine tools and techniques from statistics, computer science, data visualization, and the social sciences to solve problems using data. Topics include data analysis; database management; inferential and descriptive statistics; statistical inference; and process improvement.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate applies the concepts of data, statistics, databases, statistical modeling, and data management to nursing informatics.*

- *The graduate analyzes data from databases, electronic health records, dashboards, remote monitoring devices, telemedicine, and other technologies to support the provision of high-quality and efficient care.*
- *The graduate predicts clinical events or likelihoods from current state and/or trend historical data to plan and resource care needs.*

## **Data Modeling and Database Management Systems**

This graduate course is designed to engage the student in planning, analyzing, and designing a relational database management system (DBMS) for use by nurse administrators, clinicians, educators, and informaticists. This experience will provide the knowledge needed to advocate for nursing informatics needs within the field of healthcare.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate proposes database models, including methods and policies for data mining and information retrieval within healthcare organizations.*
- *The graduate applies constructed data models for communication of clinical documentation across systems, including interoperability considerations.*
- *The graduate integrates compliance requirements to the informatics system as outlined by government regulations, accreditation, licensing, and certification agencies to mitigate legal risk to healthcare organizations.*
- *The graduate designs clinically relevant and user-focused informatics projects using informatics systems theory, information processing theory, and national taxonomies to support safe, high quality patient outcomes.*

## **Informatics System Analysis and Design**

In Informatics System Analysis and Design, a broad understanding of data systems is covered to build upon the Foundations in Nursing Informatics course. The importance of effective interoperability, functionality, data access, and user satisfaction are addressed. The student will be analyzing reports and integrating federal regulations, research principles, and principles of environmental health in the construction of a real-world systems analysis and design project. This course will be directly applicable to healthcare settings as electronic records management has become compulsory for healthcare providers. All of the information in this course will be directly tied to the delivery of quality patient care and patient safety. Foundations in Nursing Informatics is recommended as a prerequisite.

*This course covers the following competencies:*

- *Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.*
- *The graduate evaluates informatics systems to distinguish effective from ineffective interoperability, functionality, data access, user satisfaction and support of patient care quality and safety.*
- *The graduate compiles the results of analysis reports to determine impact on healthcare consumers, families, communities, resources, networks, and healthcare organizations.*
- *The graduate applies research principles to the inclusion of key data elements in systems designs in support of clinical evaluation and clinical processes research.*
- *The graduate researches federal and other regulation in selecting information systems and projects in practice.*
- *The graduate evaluates principles of ergonomics and environmental health in the design and implementation of informatics projects in practice.*

## **Nursing Informatics Field Experience**

Nursing Informatics Field Experience requires students to complete clinical/practice experiences in an approved healthcare setting, working with an approved preceptor while engaging in authentic activities relevant to the role of an informatics nurse. To help students develop competency in this area, this course gives students opportunities to apply methods and solutions to support clinical decisions. They will be prepared to improve health outcomes by analyzing an existing health information system to determine the need for a system optimization that will improve an organization's ability to measure and report Triple Aim objectives. All MSN Core and Specialty courses, with the exclusion of the Capstone course, are prerequisites to this course and must be completed before taking this course.

*This course covers the following competencies:*

- *The graduate integrates the latest evidence and technology and the expertise of the interprofessional team to design or*

*refine clinical decision-support tools.*

- *The graduate designs innovations in data collection and management, in collaboration with the interprofessional team, to effect change in practice and improve health outcomes.*
- *The graduate designs comprehensive solutions, integrating change and complexity theory concepts, for effective implementation to enhance health outcomes.*

## **Nursing Informatics Capstone**

Nursing Informatics Capstone requires students to complete clinical/practice experiences (CPE) and finalize their system optimization proposal paper, which addresses the Institute of Health's Triple Aim initiative. During this course, students will plan the final phase of their system development life cycle (SDLC), which consists of proposing the processes, methods, and tasks for monitoring, maintaining, supporting, and evaluating their system optimization. The knowledge and skills that students acquire during the CPE in this course will prepare them to complete their system optimization proposal paper. This is a culminating course that provides students an opportunity to demonstrate the competencies acquired during this program. All MSN Core and Specialty courses, including the Field Experience course, are prerequisites to this course and must be completed before taking this course.

*This course covers the following competencies:*

- *The graduate integrates and synthesizes competencies from across the degree program and thereby demonstrates the ability to participate in and contribute value to the chosen professional field.*

## Accessibility and Accommodations

Western Governors University is committed to providing equal access to its academic programs to all qualified students. WGU's Accessibility Services team supports this mission by providing support, resources, advocacy, collaboration, and academic accommodations for students with disabilities and other qualifying conditions under the Americans with Disabilities Act (ADA). WGU encourages student to complete the Accommodation Request Form as soon as they become aware of the need for an accommodation. Current and prospective students can reach the Accessibility Services team Monday through Friday 8:00 a.m. to 5:00 p.m. MST at 1-877-HELP-WGU (877-435-7948) x5922 or at ADASupport@wgu.edu.

## Need More Information? WGU Student Services

WGU's Student Services team is dedicated exclusively to helping you achieve your academic goals. The Student Services office is available during extended hours to assist with general questions and requests. The Student Services team members help you resolve issues, listen to student issues and concerns, and make recommendations for improving policy and practice based on student feedback.

Student Services team members also assist with unresolved concerns to find equitable resolutions. To contact the Student Services team, please feel free to call 877-435-7948 or e-mail [studentservices@wgu.edu](mailto:studentservices@wgu.edu). We are available Monday through Friday from 6:00 a.m. to 10:00 p.m., Saturday from 7:00 a.m. to 7:00 p.m., mountain standard time. Closed Sundays.

If you have inquiries or concerns that require technical support, please contact the WGU IT Service Desk. The IT Service Desk is available Monday through Friday, 6:00 a.m. to 10:00 p.m. and Saturday and Sunday, 10:00 a.m. to 7:00 p.m., mountain standard time. To contact the IT Service Desk, please call 1-877-HELP-WGU (877-435-7948) or e-mail [servicedesk@wgu.edu](mailto:servicedesk@wgu.edu). The support teams are generally closed in observance of university holidays.

For the most current information regarding WGU support services, please visit "Student Support" on the Student Portal at <http://my.wgu.edu>.