



**Doctor of Information Technology
(DIT)
2011-2012**

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Approval to Operate

*The University of North America is certified by the
State Council of Higher Education for Virginia to operate in Virginia.*

Transferability of Credit

The courses and programs offered by the University of North America are fully equivalent to those offered by other institutions of higher education. That said, each institution makes its own determination of the transferability of credits earned at another institution. Students are advised to contact the institution to which they intend to transfer as to the transferability of specific courses and programs.

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Doctor of Information Technology (DIT)

Overview – The goal of the Doctor Information Technology (DIT) program is to combine the disciplines of information systems and software engineering at an advanced level. On completion of the program, the graduate will be able to design, use and evaluate information supported decision-making in information technology and business policy settings. UoNA prepares students with a firm understanding of the technical and organizational aspects of information technology.

The Doctor of Information Technology program is an application-oriented degree awarded for excellence in the advancement and dissemination of new knowledge, both basic and applied, about the design, use and evaluation of information systems, services, and policies for individuals, private sector firms, and non-profit and governmental organizations.

Admission Criteria – Each candidate for admission will receive a personal assessment of the likelihood of his or her success in this doctoral program and of the probable contribution that the candidate will make to the field of information technology after graduation.

Among the criteria that will be included in this assessment are:

- A solid undergraduate record. The candidate's area of studies is less important than the accomplishment of a successful record of academic achievement.
- A Master in Information Technology (MSIT) degree or another Master's degree in a closely related field. Again, a record of academic accomplishment is expected.
- Students whose Master's degree is in a field other than one that is information technology related will be required to complete from one to four additional Foundation Courses as needed to assure preparation for Doctoral work.
- Demonstrated success in operations as an IT professional in a business, not-for-profit organization, or government agency.
- The candidate's personal statement of his or her reason for pursuing a doctoral degree, the reason for selecting this particular program, and how the candidate's background has prepared the applicant for success in the program and the business world after graduation.
- Two letters of reference attesting to the candidate's experience and abilities and readiness for graduate studies.
- The results of the Graduate Record Examination Test (GRE) are not required for admission to the program. The candidate may, however, wish to submit such scores in support of his or her application.
- Candidates whose graduate degree was completed in a language other than English must submit their Test of English as a Foreign Language (TOEFL) scores as a part of their admissions materials. Should an applicant's TOEFL scores be below those required for entrance into the program courses of the university, students will begin in the Graduate Level Academic and Professional English Program and the program length will be extended.
- Students who have not completed the equivalent of an MSIT may be required to complete up to four Background Courses to assure readiness for the rigors of doctoral study.

Program Structure – The program is designed as a cohort program – students enter with a group of other doctoral students and progress through the program as a unit. Through this approach, students will understand clearly the dynamics of groups and will develop interpersonal problem solving techniques crucial for success in the world of information technology.

Students take two courses per term until they reach the dissertation stage when each course must be completed sequentially.

The length of the program is 3 years, and the expectation is that students will complete in this length of time. Should extenuating circumstances arise, the time-to-completion may be extended to as much as four years at the request of the student and with the approval of the Dean.

The program consists of 60 credits as follows:

36 credits of major coursework

12 credits of research courses

12 credits of dissertation courses

Program Sequence – If required, the student will complete from one to four doctoral-level Background Courses to equip him or her to succeed in the program. These courses must be completed before joining a cohort of fellow students and beginning the Major and Research course sequence. Students typically complete Major and Research courses two at a time. When all Major and Research courses have been completed, the student takes a Comprehensive Examination. This examination consists of four equally weighted three-hour examinations given over a two day period. The areas of assessment on the Comprehensive Examination are:

DOCT 909 Doctoral Comprehensive Examination*

The successful completion of all four portions of the Comprehensive Examination is required in order to advance to Candidacy status.

Once the student has advanced to Candidacy status, he or she moves to the preparation of a dissertation in an area of information technology of direct interest and relevance to the student. The dissertation must address two related issues –

- The student is expected to advance the boundaries of knowledge by the completion of this dissertation, and
- The dissertation must be designed to address a real-world problem or issue in an organization today.

To focus the efforts and direct the completion of the dissertation, students complete a series of four Dissertation Courses sequentially and one at a time. Completion of each course assures the student and the Dissertation Advisor that the student will accomplish the goals of the process in a timely manner.

When the dissertation has been completed and approved by the student's dissertation committee, a *viva voce* defense will be scheduled at which the candidate will present his or her issue, approach, and findings.

Background Courses * (4)

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| DOCT 705 | Enterprise IT Lifecycle Processes |
| DOCT 706 | Global Enterprise Data Management |
| DOCT 707 | Global Enterprise Architecture |
| DOCT 708 | Enterprise IT Leadership and Governance |

Major Courses – All students - 36 credits - 12 Courses

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|----------|---|
| INST 721 | Information Technology Research and Practice |
| INST 732 | Survey of Research Literature in Information Technology Management Infrastructure |
| INST 743 | Survey of Research Literature in Information Technology Planning and Delivery |
| MGMT 744 | Advanced Concepts in Project Management |
| INST 765 | Information Technology Delivery |

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| INST 776 | Information Technology Strategies and Management |
| INST 742 | Special Topics in Information Technology |
| INST 753 | Directed Readings in Information Technology |
| INST 764 | Distributed Database Management Systems |
| INST 775 | Intelligent Databases |
| INST 786 | Electronic Commerce |
| INST 799 | Seminar in Information Technology |

Research Courses – All students - 12 credits – 4 Courses

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|----------|---|
| RESH 710 | Advanced Research Techniques for Business and Technology (3) |
| RESH 720 | Statistics for Business and Technology (3) |
| RESH 730 | Information Technology in Business Research and Technology Research (3) |
| RESH 740 | Quantitative Methods (3) |

Dissertation Courses – All students – 12 credits – 4 Courses

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|----------|---|
| DISS 750 | Concept Paper and Literature Review (3) |
| DISS 760 | Methodology (3) |
| DISS 770 | Dissertation Proposal (3) |
| DISS 780 | Manuscript Preparation (3) |

TOTAL: 60 credits

* Background Courses must be completed if the student has not successfully completed the equivalent of a Master's Degree-level course in each area identified. These courses are doctoral level courses that are considered to be the equivalent of three credit hours, but the credits do not count toward the graduation requirement.

Doctoral Completion Program – Students who have attended a doctoral program within the past seven years and who have completed substantially all of their pre-dissertation work may petition for special admission to the university. Students may be admitted into one of two programs:

1. Students who have completed all doctoral coursework at a previous university and who have been advanced to candidacy status will be designated as University Fellows. Each University Fellow will be assigned a dissertation advisor to serve as a mentor and guide through the process. Students must complete all four dissertation courses (DISS 750, DISS 760, DISS 770, and DISS 780) and the dissertation. On completion and acceptance of the dissertation by the student's doctoral committee, an oral defense and presentation of the study will be scheduled. The expectation is that the degree will be completed in a 12 month period.
2. Students who have not been advanced to candidacy status at a previous university will be assigned a mentor who will work with the student to assess all doctoral work previously completed. The taught courses the student must complete will be identified. Following completion of all required taught courses, the student will take the Comprehensive Examination. On successful completion of the Comprehensive Examination, the student will be advanced to Candidacy Status and will be assigned a dissertation advisor. Students must complete all four dissertation courses and the dissertation. On completion and acceptance of the dissertation by the student's doctoral committee, an oral defense and presentation of the study will be scheduled. The length of the program will be determined by the number of academic courses the student must complete.

The process for admission to the Doctoral Completion Program is as follows:

- 1 Potential students must make application to the program following standard university procedures including the submission of transcripts, any required language test results, and a statement of the proposed area of research contemplated for the dissertation.
- 2 An individualized assessment will be completed for each prospective doctoral student. The applicant's completed coursework will be compared with the university's existing doctoral degree requirements to determine the work required to be completed. If the applicant is accepted for admission to the program, a degree completion plan will be designed and presented to the potential student. Should the student accept the offer of admission, a mentor will be assigned to the student to guide the student to the completion of his or her degree.

INST 721 - Information Technology Research and Practice 3 credit hours

This course is a technical introduction to the theory and practice of information security. It serves as the first security course for the degree and is required as a prerequisite for all subsequent courses.

INST 732 - Survey of Research Literature in IT Management Infrastructure 3 credit hours

This course examines the application of industry standard frameworks to the management of information technology infrastructure, development, and operations. Frameworks including the Information Technology Infrastructure Library (ITIL), Control Objectives for Information and related Technology (COBIT), and others are covered. Students learn to use these frameworks to tailor a set of concepts and policies to necessary manage IT in a specific enterprise.

INST 743 - Survey of Research Literature in IT Planning and Delivery 3 credit hours

This course examines the various stages from planning, scheduling and controlling IS/IT projects to managing critical interfaces with users and vendors, to balancing development needs with system maintenance. In this course, students learn how to optimize IT development and delivery processes so that information technology project may be brought online more effectively, more quickly, and on budget.

INST 742 - Special Topics in Information Technology 3 credit hours

This course is designed to examine current topics in advanced IT research. Content varies depending on faculty interests, research developments, and student demand. The course requires substantial student participation. The course may include formal models for IT, multilevel data models, multilevel database management system architectures, distributed secure system architectures, integrity models and mechanisms, security policy, and requirements analysis.

INST 753 - Directed Readings in Information Technology 3 credit hours

This course is designed for students do an in-depth research and analysis of a contemporary problem in information system development.

INST 764 - Distributed Database Management Systems 3 credit hours

This course focuses on the area of databases that is considered by most experts to be a fundamental area of computer and information science, and the course provides comprehensive coverage that includes theoretical foundations, practical experience, and recent advances in distributed database management systems.

INST 765 - Information Technology Delivery 3 credit hours

This course is designed to provide the student with learning about optimum performance and competitive advantages, in today's organizations that are needed to identify, plan, and deliver information technology (IT) solutions that support business processes. It is the role of the project manager to determine customer requirements, set goals tied directly to stakeholder needs, get the most from the project management team, and utilize project management tools to accomplish the work on time, within budget, and to performance specifications. The course addresses the role of the project manager and project team throughout the project life cycle by extending traditional project management concepts to IT projects. Participants gain an understanding of the strategies and skills necessary to manage each stage of the project including critical success factors and hidden risks inherent in IT projects.

INST 775 - Intelligent Databases**3 credit hours**

This course is designed for students to study the models and techniques that empower the database systems with intelligence and cooperative behavior, with emphasis on subjects such as knowledge-rich databases, logic databases, epistemological queries, intentional answering, and knowledge discovery. Topics include user interfaces, cooperative query interfaces, interactive query constructors, graphical interfaces, and browsers; uncertainty representing, manipulating, and retrieving uncertain, imprecise, or incomplete information; and formulating and interpreting vague or incomplete queries.

INST 776 - Information Technology Strategies and Management**3 credit hours**

This course provides an overview of contemporary practices for managing information as a strategic asset of public-sector, non-governmental organizations, community-based and civil society service-based organizations including libraries and museums. The course examines the challenges of managing the information assets of organizations, methods for building the information capabilities of organizations, understanding the information infrastructure, strategies to assure reliable and secure IT services, managing information asset outsourcing, and how best to organize and lead the IT function.

INST 786 - Electronic Commerce**3 credit hours**

This course addresses the issues of companies and customers that are discovering the potential impact of the Internet and the Web as powerful strategic assets. Businesses are reengineering their processes to respond to the increased demand for the efficient collection and dissemination of information. This course explores business concepts, opportunities, challenges and strategies related to electronic commerce. Electronic commerce (EC) is the use of information technology in conducting economic transactions and managing businesses over computer networks.

INST 799 -Seminar in Information Technology**3 credit hours**

This course is designed for students to examine current advances in computer information systems theory, methodologies, and support systems.

MGMT 744 Advanced Concepts in Project Management**3 credit hours**

This course applies contemporary project management tools to real operations in business. Included are the assessment of information requirements, the selection of tools, the gathering of resources, scheduling techniques and issues, the use of information technology, budget and time constraints, the roles of teams and individuals, project controls and project termination.

RESH 710 Advanced Research Techniques for Business and Technology**3 credit hours**

This course is designed to introduce students to business-related information sources and basic analytic techniques required for understanding. Familiarity and facility with electronic data bases relevant to business research will be emphasized. Foundational quantitative and qualitative skills will be built to provide a basis for doctoral-level research.

RESH 720 Statistics for Business and Technology**3 credit hours**

This course is designed to develop skills in the collection and analysis of quantitative data for business applications. Included are basic descriptive statistics, hypothesis testing, analysis of variance, and basic correlation and regression analysis.

RESH 730 Information Technology in Business Research and Technology Research**3 credit hours**

This course focuses on the use of electronic data for business. Included are a review of the types of hardware and software used by business. Focus is brought to the use of information technology in accounting, marketing, operations, and strategic planning.

RESH 740 Quantitative Methods**3 credit hours**

This course focuses on the application of quantitative approaches to real-world business situations. Students will address a series of cases in which data will have to be collected, analyzed, and reported on. Included will be the analysis of externally-provided data and the techniques appropriate to forecasting and decision making.

- DISS 750 Concept Paper and Literature Review 3 credit hours**
 This course is designed to guide the student through the development of the basic concept for the dissertation and through the preparation of an annotated bibliography of materials relevant to the dissertation. The preliminary goals and approaches of the dissertation are identified and documented. These documents, in slightly modified form, will be the basis for chapters one and two of the final dissertation.
 Prereq: All Major and Research courses in the doctoral program
- DISS 760 Methodology 3 credit hours**
 This course is designed to guide the student through the identification of research constructs and the basic data collection and analysis methodologies anticipated in the dissertation. Planned statistical tests will be identified and basic table shells for data presentation will be prepared. This document, in slightly modified form, will be the basis for chapter three of the final dissertation.
 Prereq: DISS 750
- DISS 770 Dissertation Proposal 3 credit hours**
 This course is designed to bring together chapters one, two, and three of the dissertation, prepared in previous courses, and to modify them for final publication.
 Prereq: DISS 760
- DISS 780 Manuscript Preparation 3 credit hours**
 This course results in the completion of the doctoral dissertation. Data are analyzed and the manuscript is prepared, reviewed, and edited for publication.
 Prereq: DISS 770
- DOCT 705 - Enterprise IT Lifecycle Processes 3 credit hours**
 This course provides the students with perspective of IT life cycles in organizations in support of the business process improvement, re-engineering and redesign, and the skills to introduce and manage such processes.
- DOCT 706 - Global Enterprise Data Management 3 credit hours**
 This course focuses on how in depth critical enterprise wide business issues are dealt with through the integration of customer data and the management of data quality assessment. Data management is an important part of IT management in enterprises, and especially the global enterprise spanning across country boundaries and continents. It addresses methods of creating and managing master data, and processes for evaluating the alternative methods and solutions to determine the approach that best addresses the organization's needs. The course highlights the specific technology frameworks and tactics for the success of enterprise data management.
- DOCT 707 - Global Enterprise Architecture 3 credit hours**
 This course focuses in enterprise architecture which is concerned with analyzing and modeling the architecture of the extended enterprise, where collaboration among stakeholders within and outside the enterprise is a key success factor. The students will study research master scheme, business planning, business processes, and computer-based tools to develop and document the architecture models.
- DOCT 708 - Enterprise IT Leadership and Governance 3 credit hours**
 This course focuses on research and skills that are related to today's leading enterprise, with attention to the IT enablement for global reach of successful corporations. Topics include business-IT alignment, strategic planning and budgeting, IT governance and portfolio management, managing emerging technologies, designing effective global organizations, sourcing IT services, and business communications in the global context. The value of IT investments are examined and mapped to benefits, maximizing the realization of IT-related benefits for the enterprise, and assessing and managing IT-related risks.

University Staff

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Chief Financial Officer

Paul de Bruin, Cert. – I.T.
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