

# Informatics, M.S.

CIP Code: 11.0104

The Master of Science in Informatics program focuses on the information technology aspect of enterprise computing, including the analytics, reporting, database management and other software solutions systems. The curriculum incorporates courses in informatics and computing and is designed so you can apply your degree at any level in, and across, any organization or area. The program emphasizes scholarly research and the application of the scientific method to computing and information technologies. Our aim is to guide students in the design, maintenance, and adaptation of information systems that solve problems pertinent to human needs.

## Admission and Prerequisites

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In addition to the general admission requirements from the Graduate School, admission to the M.S. degree program in Informatics requires completion of undergraduate coursework in pre-calculus, survey of calculus, and statistics. (At UL Lafayette, these courses include MATH 109 or MATH 143, MATH 250, and STAT 325 or STAT 427.) Substitutions for these admission prerequisite courses may be considered on a case-by-case basis by the program. Approval of any substitution must be conveyed by the Graduate Coordinator to the Dean of the Graduate School upon review the application for admission.

## Degree Requirements and Coursework

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The Master of Science in Informatics program requires completion of 33 graduate credit hours. Upon completion of 12 hours of graduate coursework in the program, students are required to declare (via the Graduate School Application for Candidacy) their intention to pursue the thesis track or non-thesis track for degree completion.

### Required Core Courses

All students must complete the following 18 graduate credit hours of required core courses:

INFX 501: Foundations of Informatics **3 Credit(s)**.

INFX 502: Systematic Methods in Informatics **3 Credit(s)**.

INFX 510: Human-Computer Interaction (HCI) in Informatics **3 Credit(s)**.

INFX 540: Informatics Network Infrastructures and Management **3 Credit(s).05**

INFX 580: Systems Development **3 Credit(s)**.

INFX 590: IT Governance, Risk Management, and Compliance (GRC) **3 Credit(s)**.

### Elective Courses

The following graduate-level INFX courses are available as elective coursework:

INFX 512: Data Analysis and Visualization **3 Credit(s)**.

INFX 520: IT and Network Security **3 Credit(s)**.

INFX 531: Distributed Database Management **3 Credit(s)**.

INFX 532: Data Mining and Business Intelligence **3 Credit(s)**.

INFX 533: Cloud Computing and Big Data Applications **3 Credit(s)**.

INFX 570: Web Application Development **3 Credit(s)**.

INFX 575: Process Analysis, Modeling and Design **3 Credit(s)**.

INFX 597: Internship

NOTE: As approved by the Graduate Coordinator and the student's committee chair, a maximum of six hours of 500-level coursework may be taken in a discipline other than Informatics.

### Foundation Courses

Students pursuing the degree with an undergraduate degree in an unrelated field of study must take the following 6 graduate credit hours of foundation courses:

INFX 500: Introduction to Informatics **3 Credit(s)**.

INFX 502: Database and Network Systems **3 Credit(s)**.

### Curriculum

The required curriculum is dependent upon a student's undergraduate degree preparation.

1. Students with **an undergraduate degree in a related field of study** (e.g., informatics, computer science, computer engineering) are required to complete the following required coursework:
  - 18 graduate credit hours of the above-identified required core courses
  - 3 graduate credit hours of INFX elective coursework
  - 6 graduate credit hours of (1) additional INFX elective coursework and/or (2) elective graduate-level coursework in a related discipline outside of INFX (e.g., Biology, Business, Geology, Mathematics, Physics, Psychology) as approved by the Graduate Coordinator
  - Thesis Track:
    - 6 graduate credit hours of INFX 599: Thesis Research and Thesis
  - Non-Thesis Track:
    - INFX 595: Master's Project **3 Credit(s)**.
    - INFX 591: Informatics Capstone **3 Credit(s)**.
2. Students with **an undergraduate degree in an unrelated field of study** are required to complete the following required coursework:
  - 6 graduate credit hours of the above-identified foundation courses
  - 18 graduate credit hours of the above-identified required core courses
  - 3 graduate credit hours of (1) additional INFX elective coursework and/or (2) elective graduate-level coursework in a related discipline outside of INFX (e.g., Biology, Business, Geology, Mathematics, Physics, Psychology) as approved by the Graduate Coordinator
  - Thesis Track:
    - 6 graduate credit hours of INFX 599: Thesis Research and Thesis
  - Non-Thesis Track:
    - INFX 595: Master's Project **3 Credit(s)**.
    - INFX 591: Informatics Capstone **3 Credit(s)**.

## **Thesis Track**

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Students who pursue the thesis track are required to complete six graduate credit hours of INFX 599: Thesis Research and Thesis and a written thesis. The thesis track emphasizes research, and is probably the best choice for students who want to eventually pursue a doctoral degree or a career in research.

Students are encouraged to talk with faculty members and the Graduate Coordinator about research possibilities and thesis topics as soon as possible. In consultation with the Graduate Coordinator, students pursuing the thesis track will select the chairperson of their thesis committee and begin working toward this goal at any time. Official identification of the committee chair and committee members shall be done at the time of application for candidacy, however, which is upon completion of 12 graduate credit hours of coursework in the program.

For the thesis track, students must develop a written thesis proposal that will be orally defended to the Thesis Committee. The committee must approve (unanimously) the written proposal and oral defense at least one semester prior to the student's thesis defense. The final written thesis must also be defended orally and approved by the Thesis Committee.

## **Non-Thesis Track**

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Students who pursue the non-thesis track are required to complete three graduate credit hours of INFX 595: Master's Project and INFX 591: Informatics Capstone to demonstrate a general comprehensive knowledge of the field of Informatics. The non-thesis option may be preferable if you're planning for a career applying research and working in the field.

For the non-thesis track, students must receive approval by the Graduate Coordinator for plans for the capstone course and Master's project. Approval should occur as soon as possible after the student declares his or her intent to follow the non-thesis option (via the Graduate School Application for Candidacy) upon completion of 12 graduate credit hours in the program.

## **Internships**

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Non-thesis track students may choose to pursue an internship opportunity with an organization or business in partial fulfillment of the INFX 591 capstone course requirements. Thesis-track students may also choose to complete an internship and earn course credit.

## **Comprehensive Exam**

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In addition to demonstrating a general comprehensive knowledge of Informatics through successful completion of the thesis and thesis oral defense (for thesis-track students) or INFX 591: Informatics Capstone (for non-thesis track students), each candidate must achieve a grade of A or B on a minimum of three, three-graduate-credit-hour 500-level courses.

## **Procedures**

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Following admission to the M.S. program in Informatics, students will register for courses upon the advice of the Graduate Coordinator. Throughout the entirety of a student's study, the Graduate

Coordinator shall provide comprehensive, long-range planning and advising for each semester's registration.

The maximum course load for a graduate student in Informatics shall be twelve graduate credit hours during a regular semester and nine graduate credit hours during a summer session.

It is expected that full-time students will complete all requirements for the M.S. degree within two years.