LETTER OF INTENT to DEVELOP a NEW ACADEMIC PROGRAM [April 2015]

General Information   **Date: November 12, 2015**

Campus:	Program:
University of Louisiana at Lafayette	**Informatics; CIP 11.0104, Master of Science in Informatics**

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1. Program Objectives and Content

Describe the program concept: purpose and objectives; basic structure and components/concentrations; etc.

Purpose and Objectives

The Mission and Purpose of the Master of Science in Informatics (MSI) program is to educate graduate students in the use of the scientific method for the application of computing and information technologies, as well as the design, maintenance, and adaptation of information systems that solve problems, with an understanding of human needs and context. As defined by the National Center for Education Statistics (NCES), and as per *The Integrated Postsecondary Education Data System (IPEDS), Classification of Instructional Programs (CIP)*, Informatics, as a field of study, is: "a program that focuses on computer systems from a user-centered perspective and studies the structure, behavior and interactions of natural and artificial systems that store, process and communicate information. Includes instruction in information sciences, human computer interaction, information system analysis and design, telecommunications structure and information architecture and management" (from ***http://nces.ed.gov/ipeds/cipcode/searchresults.aspx?y=55&aw=Informatics&sw=1,2,3&ct=1,2,3&ca=1,2,5,3,4***). As such, our Master of Science in Informatics (MSI) program is designed to support advanced education and research in the information sciences and information technology, which is one of several strategic initiatives described in the framework "Fostering Innovation through Research in Science and Technology in Louisiana" (FIRST Louisiana).

Our graduates will be trained in the Information Technology aspect of enterprise computing, regardless of end-user/organization domain or area. Enterprise computing includes the analytics, reporting, database management, and other software solutions systems, which span the entire organization. The curriculum is sufficiently generalized to allow graduates to find employment both within and outside of Louisiana, with companies such as the recently opened CGI, Perficient, Enquero, GE Capital Technology Center, IBM Baton Rouge, and CenturyLink in Monroe, to name a few. As Lafayette continues to develop into a regional hub for such services and information technology industries, the initial area of focus of the program is the goal of using information in organizations to improve products and services.

The objectives of our Master of Science in Informatics (MSI) program are as follows:

A. To provide a curriculum that encompasses the breadth of the field of Informatics (applied computing and information technology), and provides depth in one of several specialized areas.
B. To prepare students to function professionally in the field of Informatics and/or graduate studies in Informatics or other related fields.
C. To develop students' computational and critical thinking, as well as problem-solving skills, through use of the scientific method.

Upon successful completion of the Master of Science in Informatics program, graduates will:

A.1   Understand and employ the fundamental principles of the science of Informatics, including those of pervasive themes in Informatics, history of information technology, information technology and its related and informing disciplines, and application domains;
A.2   Have the ability to analyze, design, implement and test, deploy, and maintain computing and information technology hardware and software infrastructures, of varying complexity and configuration, with respect to a variety of criteria and/or processes relevant to the task;
B.1   Apply concepts and analytical methods used in the computational, natural, mathematical, and social sciences, to the design and implementation of computing and information technology solutions across multiple domains;
B.2   Understand the professional, ethical, legal, and societal issues and responsibility, as well as the global impact in the design and application of computing and information technology solutions;

C.1   Acquire the ability to solve structured, unstructured, and semi-structured problems by means of computational thinking and appropriate design choices, and demonstrate a working knowledge of current Informatics tools, techniques, and skills.

Although there are other graduate programs in the field of Informatics at various institutions across the United States (as an example, at Indiana University) our Master of Science in Informatics (MSI) program would be the **first of its kind** in Louisiana.

Students who complete our Master of Science in Informatics (MSI) Program will be well-prepared for one or more of the following:

1. To pursue a doctoral degree in fields such as: Informatics, Information Systems, or Information Technology; or
2. To pursue middle-/upper-management (e.g., Technology manager; Chief Information Officer); or
3. To pursue mid-career professional advancement (e.g., Professional recognition award, etc.)

Resources Needed to Run the Program:

Primary Faculty with appropriate Graduate Faculty Status
- Michael Totaro, Associate Professor, Informatics
- Sonya Hsu, Associate Professor, Informatics
- Mehmet Tozal, Assistant Professor, Informatics
- Ashok Kumar, Associate Professor, Computer Science
- Henry Chu, Professor, School of Computing and Informatics
- Subrata Dasgupta, Professor, School of Computing and Informatics
- Arun Lakhotia, Professor, Center for Advanced Computer Studies
- Christoph Borst, Associate Professor, Center for Advanced Computer Studies

Supporting Faculty with appropriate Graduate Faculty Status
- Jim Etheredge, Professor, Computer Science
- Magdy Bayoumi, Professor, Center for Advanced Computer Studies
- Dmitri Perkins, Professor, Center for Advanced Computer Studies
- Vijay Raghavan, Professor, Center for Advanced Computer Studies
- Nian-Feng Tzeng, Professor, Center for Advanced Computer Studies
- Hongyi Wu, Professor, Center for Advanced Computer Studies
- Miao Jin, Associate Professor, Center for Advanced Computer Studies
- Tony Maida, Associate Professor, Center for Advanced Computer Studies
- Danella Zhao, Associate Professor, Center for Advanced Computer Studies

GA (number, funding source, Full or Tuition waiver only):
We request support for two graduate teaching assistantships for the first year of the program, followed by two additional assistantships for the second year, as the program demonstrates its viability. This includes a stipend, as well as tuition waivers. Graduate assistantships serve an important role in recruiting and retaining highly-qualified students. Graduate assistantships also help to offset faculty workloads, which are expected to increase with the inception of a graduate program. To compensate for this investment by the University, the majority of funds for graduate student support will come from the private sector, in the form of four internships subsidized by local companies. Students funded by industry funds will pay regular (in-state or out-of-state) tuition, which will bring revenue to the University.

Labs:
We do not require any additional laboratory space for this program.

Other Physical Facility Needs:
None. We already have space in James R. Oliver Hall (the building that will house this new program) to assign offices to the Graduate TAs.

Other Resources Needed:
None.

Basic Structure and Components/Concentrations:

The Master of Science in Informatics (MSI) Program requires students' completion of 33 graduate credit hours for both thesis and non-thesis options. Thus, a full-time student can complete the curriculum in 4 regular semesters or roughly 24 months.

Students potentially may pursue several course threads, which include but are not limited to the following: Business, Media Technology, System Administration, and Web Development.

Prerequisites:

Students from computing backgrounds (e.g., computer science and Informatics) will have the necessary course prerequisites for acceptance into the MSI. However, students from non-computing backgrounds (e.g., business, liberal arts, natural sciences, performing arts, etc.) must complete the following courses (or their equivalents) for acceptance into the MSI:

Prerequisite courses
- MATH 250 Survey of Calculus (3 credit hours)
- STAT 325 Introduction to Statistics (3 credit hours)

Foundation/Leveling courses
- INFX 500 Fundamental Concepts for Informatics (3 credit hours)
- INFX 530 Database Systems and Networks in Informatics (3 credit hours)

An undergraduate GPA of at least 3.0, a satisfactory GRE score and three supportive letters of recommendation are amongst the criteria used for admission evaluation.

The Informatics Graduate Studies Coordinator shall determine which, if any, foundation/leveling courses must be completed by the student. Note that prerequisite courses or foundation/leveling courses indicated above count towards the MSI degree.

The Master of Science in Informatics (MSI) Program is organized as four components:

1. At least 18 credit hours of core coursework;
2. At least 3 credit hours of elective coursework;
3. At most 6 credit hours from one of the following options:
   a. elective course work; or
   b. course work relevant to a course thread (approved by the Informatics Graduate Studies Coordinator);
4. One of the following:
   a. Non-thesis option: 3 credit hours of INFX 597 (Special Project) and 3 credit hours of INFX 595 (Capstone); or
   b. Thesis option: 6 credit hours of INFX 599 (Thesis).

Graduate courses in Informatics are organized as follows (all courses are already in existence):

FOUNDATION / LEVELING
INFX 500 Introduction to Informatics
INFX 530 Database and Network Systems

CORE
INFX 501 Foundations of Informatics
INFX 502 Systematic Methods in Informatics
INFX 510 Human-Computer Interaction (HCI) in Informatics
INFX 540 Informatics Network Infrastructures and Management
INFX 580 Systems Development
INFX 590 IT Governance, Risk Management, and Compliance (GRC)

ELECTIVES
INFX 512 Data Analysis and Visualization
INFX 520 IT and Network Security
INFX 531 Distributed Database Management
INFX 532 Data Mining and Business Intelligence
INFX 570 Web Application Development
INFX 581 Process Analysis, Modeling and Design
INFX 570 Mobile Application Development and Design

CAPSTONE
INFX 595 Informatics Capstone

COURSE THREADS

Students who wish to pursue a course thread (see above) must complete at least 3 credit hours of elective coursework and at most 6 credit hours of coursework drawn from other disciplines, such as Biology, Business/Economics, Chemistry, Communications and Visual Arts, Computer Science, Environmental Science, Geology, Mathematics/Statistics, Physics, etc. Selection by a student of a particular course thread and related course work must be approved by the Informatics Graduate Studies Coordinator.

COURSE DESCRIPTIONS

FOUNDATION / LEVELING

INFX 500 Introduction to Informatics (3 credit hours). This course is intended for students whose prior university studies are in non-computing areas. It provides students with a breadth-level foundation of the Informatics discipline, namely, an overview of computing architectures, algorithms and programming, operating systems, data structures, file organization and databases concepts.

INFX 530 Database and Network Systems (3 credit hours). This course is intended for students whose prior university studies are in non-computing areas. It provides students with a breadth-level foundation in the Informatics areas of database systems and network infrastructures.

CORE

INFX 501 Foundations of Informatics (3 credit hours). This course serves as an intensive introduction to the most central technical tools of Informatics; most importantly, probability and statistics, computation and data analysis (using R). Also examines ethical, legal, and social issues surrounding contemporary research and practice in science informatics. Topics include the nature of science and technology, the ramifications of recent advances in science Informatics, relevant science policy, ethics and surveys of diverse theories of globalization to identify the best approaches for professional informatics career planning.

INFX 502 Systematic Methods in Informatics (3 credit hours). This course surveys a broad range of research methods employed in Informatics. Explore theoretical foundation and exemplify the application to specific research questions. The course introduces qualitative and quantitative research methods in sampling, data collection, data analysis and the mathematical prerequisites for understanding probability and statistics.

INFX 510 Human-Computer Interaction (HCI) in Informatics (3 credit hours). The course will explore, analyze, and criticize underlying assumptions and the rationale behind some of the most influential theoretical attempts in HCI and related fields. This course offers a survey overview of the field of Human-Computer Interaction Design. It introduces interaction design, cognitive modeling, distributed cognition, computer-supported cooperative work, data visualization, ubiquitous computing, affective computing, and domestic computing, and so on.

INFX 540 Informatics Network Infrastructures and Management (3 credit hours). This course presents the foundations of data communications – with particular emphases on the ISO-OSI Reference Model and TCP/IP – and takes a bottom-up approach to computer networks. The course concludes with an overview of core network security and management concepts.

INFX 580 Systems Development (3 credit hours). The course provides students with the understanding and skills needed to define and implement successful enterprise architectures that provide real value to organizations. Agile and object-oriented methods of information systems analysis and design for organizations with data- processing needs. Proficiency in all basic project management tools and software techniques, including software architecture, project communications, risk analysis, cost estimation and budgeting, and quality control; proficiency in planning and developing a comprehensive project plan and software development life cycle. This course will enhance students' competence sufficiently to oversee the architecture, design, and implementation of software systems.

INFX 590 IT Governance, Risk Management, and Compliance (GRC) (3 credit hours). This course looks at systems and protocols, how to design threat models and how to use a large number of current security technologies and concepts to block specific vulnerabilities. The course begins with an introduction to relevant definitions, i.e. security, privacy, trust, and then moves to a series of timely case studies of security technologies. This course covers the integration of risk management into governance and compliance but it is not limited to security design/implementations that allocate risk, determine authority, reify or alter relationships, and determine trust extended to organizational participants.

ELECTIVES

INFX 512 Data Analysis and Visualization (3 credit hours). This course focuses on analytical reasoning facilitated by interactive visual interfaces. It serves as an introduction to the science and technology of visual analytics. The course contents will include both theoretical foundations of this interdisciplinary science as well as practical applications of integrated visual analysis techniques on real-world problems.

INFX 520 IT and Network Security (3 credit hours). This course is an extensive survey of system and network security. Discussion of methodologies for identifying, quantifying, mitigating and controlling risks. Students implement a comprehensive IT risk management plans (RMP) that identify alternate sites for processing mission-critical applications, and techniques to recover infrastructure, systems, networks, data and user access. The course provides the foundation for more advanced security courses and hands-on experiences through course projects.

INFX 531 Distributed Database Management (3 credit hours). This course covers advanced aspects of database management systems including advanced normalization and de-normalization, query optimization, object-oriented and object-relational databases, data warehousing, data mining, distributed databases, XML, XSL, and databases for web applications.

INFX 532 Data Mining and Business Intelligence (3 credit hours). The course provides an introduction to concepts behind data mining, text mining, and web mining. Algorithms will be tested on data sets using the Weka Data mining software and Microsoft SQL Server 2014 (Business Intelligence Development Studio).

INFX 570 Web Application Development (3 credit hours). This course focuses on building core competencies in web design and development. It begins with a complete immersion into HTML essentially XHTML and Dynamic HTML (DHTML). Students are exposed to Cascading Style Sheets (CSS), as well as Dynamic CSS. The fundamentals of JavaScript language including object-oriented JavaScript is covered comprehensively. AJAX with XML and JSON are covered, as they are the primary means to transfer data from client and server. Topics also include comparison of e-commerce procedures, payment mechanisms, applications in different industry sectors, security, the challenges of starting and maintaining an electronic business site.

INFX 581 Process Analysis, Modeling and Design (3 credit hours). This course is to identify, execute, measure, monitor, and control both automated and non-automated business process to achieve consistent, targeted results aligned with an organization's strategic goals. Use of information technology to manage, transform, and improve business processes. Modeling of processes, relationships, and costs and re-engineering of processes to reduce waste, add value, shorten cycle times, decrease variability, and improve productivity. This course will provide a detailed understanding of project management and will present concepts that promote efficient and effective communication and coordination among various groups. Students will learn how to construct a project plan, manage project costs, risk, and communication within the context of Project Portfolios.

INFX 570 Mobile/Pervasive Application Design and Development (3 credit hours). The aim of this course is to provide students with the ability to design and implement novel interactions with mobile and pervasive technologies. The course will engage in discussions of interaction paradigms and explore different technologies. Students will design, build, implement and refine mobile and pervasive computing applications for their domain of interest

CAPSTONE
INFX 595 Informatics Capstone (3 credit hours). This course provides an overview of contemporary information technology (IT) management. It explains the relevant issues of effectively managing information services. The course highlights areas of greatest current and potential application of IT to business needs and reviews electronic business, enterprise business systems, and decision support systems. It is a project-based course.

2. Need
Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., accreditation, contribution to economic development; related to current or evolving needs within state or region). Cite data to support need: employment projections; supply/ demand data appropriate to the discipline and degree level, etc.

UL Lafayette's Master of Science in Informatics Program will address the current and expected demand for well-prepared computing and information technology professionals across the state, as well as the Acadiana region. According to information provided by Louisiana Economic Development (LED), Louisiana's traditional and emerging industries continue to grow at a healthy rate. These industries include the following:

- Aerospace
- Agribusiness
- Automotive
- Energy
- Entertainment & Game Design
- Manufacturing
- Process Industries
- Software Development
- Water Management

Businesses choose Louisiana due mostly to competitive incentives, a skilled workforce, a business-friendly tax environment, and

a unique quality of life. Such companies include, but are not limited to, the following: AAR, Albemarle Corporation, Bell Helicopter, Benteler, Bercen, Inc., CenturyLink, CGI, Cheniere, ConAgra Foods, CSC, Dr. Reddy's, Electronic Arts, Enquero, Gameloft, Gardner Denver, GE Capital, Halliburton, IBM, K&B Machine, Moonbot Studios, Nucor, Perficient, Pixel Magic, Sasol, Schumacher Group, SNF Flopam, Zagis and Gulf Coast Spinning.

Several key technology companies recently have chosen to locate and/or establish facilities in Louisiana; these companies are as follows:

- In March of 2013, IBM announced a major 800-job technology center in Baton Rouge, the purpose of which is to provide quantitative-intense business solutions to its domestic customers. The new IBM Technology Center will open in May of 2015 as part of a $55 million urban development.
- Also in March of 2013, CenturyLink broke ground on its 250,000-square-foot headquarters expansion, which it calls its "Technology Center of Excellence," adding 800 jobs in Monroe and 1,170 new indirect jobs in the greater Monroe area.
- In April of 2014, CGI announced a 400-job technology center in Lafayette, the groundbreaking of which has already begun, as of January 2015. Specifically, by way of its new 50,000-square-foot facility, CGI will deliver technology solutions as an anchor tenant of the University of Louisiana at Lafayette's Research Park.
- In July of 2014, Enquero, a company that provides technology solutions for major domestic customers, announced a 350-job enterprise software center in Lafayette.
- In September of 2014, Perficient announced a 245-job software development center in Lafayette.

In addition to the expected several thousand jobs created by these technology companies, so-called non-technology companies (e.g., Bell Helicopter, Benteler, ConAgra Foods, and others) also require computer and information technology solutions, which are developed and deployed by Informatics professionals. Overall, the job outlook for computing and information technology occupations is expected to grow faster than average (i.e., between 8% - 37%, depending upon the specific occupation, between now and the year 2022), according to the U.S. Bureau of Labor Statistics (bls.gov). Moreover, among the various computing and information technology occupations that require a minimum of a Bachelor's degree, the 2012 range of median pay spans between $62,500 and $93,350 per year.

It should be noted that, even with this new Master's Program, the needs and requirements by the aforementioned companies for graduates of such a program will still be unmet. As such, the production of graduates from this Master's Program would help greatly in meeting these needs.

The Acadiana Region continues to experience an economic environment that is both vibrant and poised for continued growth. In fact, a 2013 report by Louisiana Economic Development (LED) includes the following:

> "*Area Development* magazine ranked Lafayette the No. 1 city in the U.S. for economic and job growth. According to *fDI* (Foreign Direct Investment) magazine's 2013-14 American Cities of the Future, Lafayette ranked No. 7 overall among the Top 10 Small American Cities of the Future and No. 1 among small American cities in the category of fDi Strategy, a ranking based on a city's current strategy for foreign direct investment promotion."

A September 2014 report by the Lafayette Economic Development Authority (LEDA) indicates the following major industries in Lafayette Parish:

- Construction
- Retail Trade/Leisure & Hospitality/Entertainment
- Finance
- Manufacturing
- Medical/Health care
- Oil and Gas
- Information Technology
- Transportation/Distribution

The 21st century economy necessitates direct support of computing and IT needs, irrespective of the industry or market space within which an organization operates. Our proposed program would directly support the computing and information technology needs and requirements of these major industries in Lafayette Parish, as well as across the state. This is due in no small measure to **the multidisciplinary and cross-functional nature of our proposed program**.

Board of Regents (BOR) Master Plan for Public Postsecondary Education in Louisiana: 2011 (Revised April, 2012)

Our program specifically addresses the following goals and objectives in the BOR 2011 Master Plan:

Goal 1, Objective 1.7: "Develop a Skilled Workforce to Support an Expanding Economy."
Our Master's program will train a new generation of workers to support computing and IT management, as well as problem-solving in areas critical to the State of Louisiana. We specifically address this need in our curriculum through our business and internship modules. Contributing to the development of a qualified labor pool in the domain of informatics will facilitate business attraction and retention.

Goal 2, Objective 2.1: "Maintain and Build Strength in Foundational Science and Technology Disciplines Identified in FIRST Louisiana."
Digital Media, Cyber Security, and Information Technology and Services are targeted by FIRST Louisiana and these are precisely the areas we support by way of our Master's program.

"Recruit, cultivate, and retain research talent in the foundational sciences."
The addition of a Master's program will allow us to greatly expand our research Computational Science and Information Technology, which will attract quality research-active faculty and provide an incentive to retain them as members of the University community.

"Develop and maintain cutting-edge infrastructure and facilities for fundamental science and technology research."
Although we already have and are building leading-edge laboratory facilities (e.g., a Virtual Desktop Infrastructure, or VDI), the Master's program will provide new opportunities to advance our infrastructure. We can leverage the Master's program to secure new technologies through grants, and we can rely on the more highly-trained Master's students to help operate and maintain hardware and software.

Goal 2, Objective 2.2: "Promote Multidisciplinary and Multi-Institutional Collaborative Research Efforts."
Informatics is by definition multidisciplinary. This is evidenced by the available course threads, which include but are not limited to the following: Business, Media Technology, System Administration, Web Development, and so on.

"Address multi-disciplinary and multi-institutional collaborations in campus research plans."
Our multidisciplinary approach reflects the University of Louisiana at Lafayette's strategic plan for advancing multidisciplinary research.

Goal 2, Objective 2.3: "Sustain and Advance Research Commercialization and Translational Activities that Promote Economic Development in Louisiana."
We are embracing translational research as our primary focus, with the aim of bridging the gap between fundamental and applied research. This focus includes an emphasis on Economics and Management courses, as well as opportunities for internships. This approach is designed to enhance commercialization.

"Promote Multidisciplinary and Multi-Institutional Collaborative Research Efforts."
See above

"Foster networking and strategic collaborations between higher education, government, and Louisiana's existing and prospective high-growth industry sectors."
Louisiana's High-growth industry sectors include Digital Media and Cyber Security. Our course threads support directly these two sectors. Hence, our Master's framework and educational approach of embracing translational research will foster collaborations between higher education and industrial and government partners.

"Build capacity in areas of competitive advantage and target niches which align with campus and State research priorities."
As described above, our course threads are closely aligned both with the research priorities of UL Lafayette and the State of Louisiana. By filling these niches, we add value to our program for our students, our community, and society.

In summary, our proposed Master's program will uniquely benefit Louisiana because:
- Our focus areas are closely aligned with the strategic focus areas identified by the BOR in the FIRST Louisiana framework.
- We combine these interrelated focus areas into one unique Master's program, as opposed to multiple programs administered by different colleges or administrative units.
- Our program is unique in its focus on providing educational and research activities at the Master's level that bridge the gap between fundamental and application-based research. This problem-solving approach will result in more tech transfer, research commercialization, and business partnerships, providing a real return on investment for Louisiana.
- The Master's program will greatly increase our ability to secure more external research funding and provide more national and international recognition for the state of Louisiana.
- The Master's program will build on our existing B.S. program in Informatics and create a positive feedback with this undergraduate program..
- Additional costs for program implementation are limited because we can rely heavily on existing faculty, staff, and research infrastructure.

- The Master's program will increase the level of STEM degree attainment within the state by providing more upper-level educational opportunities in areas of high growth where more intellectual capacity is needed.

3. Relevance

Explain why this program is an institutional priority at this time. How will it (a) further the mission of the institution and (b) increase the educational attainment of the state's adult population or foster innovation through research.

The University of Louisiana at Lafayette is the largest member of the University of Louisiana System. Our Master's program aligns well with the University's mission, as part of its continuing excellence in graduate education, research, and public service. Moreover, our Master's program shall contribute to the University's ongoing development of scholars who advance knowledge and improve the material conditions of society.

Our proposed Master's program is an institutional priority at this time because the continuing integration of information technology infrastructures by small, medium, and large businesses must be supported by IT professionals who have currency in the field, as well as the intellectual agility to assimilate new technologies as they become available. This, in turn, directly supports the State of Louisiana's economic prosperity through development of a skilled, educated citizenry, which, according to the Board of Regents Master Plan, has established a goal of increasing the educational attainment of its adult citizens to the SREB average of 42% by 2025.

4. Students

Summarize student interest/demand for the proposed program.

According to information available by way of the Louisiana Board of Regents website, the following are Masters-level degree programs in the area of Computer and Information Sciences and Support Services:

Active Degree and Certificate Programs/Options
Selected List

Discipline/Area=Computer and Information Sciences and Support Services (11)
Degree Level=Masters
Programs Found=7

Institution	2010 CIP Code	Degree	Subject/Discipline	Approved	Average Completers (5-Year)
L.S.U. and A&M College	110401	MSSS	SYSTEMS SCIENCE	05/1974	23
L.S.U. in Shreveport	110401	MS	COMPUTER SYSTEMS TECHNOLOGY	02/1988	8
Louisiana Tech University	110701	MS	COMPUTER SCIENCE	05/1980	13
Southern University and A&M College	110701	MS	COMPUTER SCIENCE	06/1983	18
Southern University in New Orleans	110401	MS	COMPUTER INFORMATION SYSTEMS	08/2013	0
University of Louisiana at Lafayette	110701	MS	COMPUTER SCIENCE	n/a	49
University of New Orleans	110701	MS	COMPUTER SCIENCE	05/1991	15

These programs are aligned with particular computing areas, namely, computer science, information systems, computing technology, and systems science (engineering). In contrast to these existing programs, our graduates will be trained in the Information Technology aspect of enterprise computing, regardless of end-user/organization domain or area. (Enterprise computing involves all the diverse computing solutions, such as database systems, network and Web infrastructures, application software, and business processes.)The curriculum is sufficiently generalized such that graduates can find employment both within and outside of Louisiana, such as the recently opened CGI, Perficient, Enquero, GE Capital Technology Center, IBM Baton Rouge, and CenturyLink in Monroe, to name a few. As stated earlier in Section 1, the initial area of focus of the program is the goal of using information in organizations to improve products and services, in order to coincide with Lafayette's transformation into a regional hub of services and information technology industries (e.g., CGI, Perficient, and Enquero).

Projected enrollment and degrees awarded, as per existing UL Lafayette computer science and informatics programs, at both the Bachelor's and Master's levels for the period 2014-2024, are shown in the tables on the following page.

Projected enrollment (2014-2024)

Year	Fall Semesters	CMPS (Bachelors)	INFX (Bachelors)	CS (Masters)	TOTAL
0	2014	366	200	64	630
1	2015	368	240	70	678
2	2016	370	267	75	712
3	2017	372	287	81	740
4	2018	374	300	84	758
5	2019	376	313	91	780
6	2020	378	333	101	812
7	2021	380	360	112	852
8	2022	385	387	118	890
9	2023	413	413	125	951
10	2024	427	427	136	990

Projected degrees awarded (2014-2024)

Year	Academic Year	CMPS (Bachelors)	INFX (Bachelors)	CS (Masters)	TOTAL
0	13/14	22	16	35	73
1	14/15	24	28	40	92
2	15/16	26	39	47	112
3	16/17	29	40	50	119
4	17/18	32	43	54	129
5	18/19	35	45	56	136
6	19/20	38	47	61	146
7	20/21	42	50	68	160
8	21/22	46	54	75	175
9	22/23	50	58	79	187
10	23/24	54	62	84	200

A survey of senior undergraduate students majoring in informatics was conducted in February of 2015. Of the 22 respondents, 20 (91%) indicated an interest in pursuing a Master of Science in Informatics at UL Lafayette. Additionally, graduates of both the Informatics Program and its predecessor, the former MIS Program, were surveyed by way of a private LinkedIn group, "Informatics Program (and former MIS Program) Alumni Group." Twelve group members (alumni) indicated an interest in our proposed Master's program. From these student polls, we may surmise that this group of 32 respondents would apply for acceptance into such a program, if it were in place today. Assuming a conservative acceptance rate, then the table below reflects projected enrollments for the first five years of its existence.

Master of Science in Informatics (MSI) -- Projected Enrollment (Years 1 - 5):

Year	Enrollment
1	10
2	13
3	17
4	22
5	28

In addition to having a strong base of students in our existing programs, we have developed a recruitment strategy to gain additional enrollment. Our recruitment strategy is comprised of 3 key components, (1) establishing pipelines through partnerships with other state, national, and international institutions; (2) implementing an aggressive traditional recruitment campaign; and (3) launching a non-traditional marketing campaign that utilizes social media.

Our non-traditional recruitment efforts will include utilization of various social media mechanisms including Facebook, Twitter, and LinkedIn. We will post information relative to the program to institutional pages as well as those of professional associations, economic development agencies and industry partners. UL Lafayette now has over 52,000 "fans" alone. We also have the expertise at the University to plan and implement an innovative social media recruitment campaign.

5. Cost

Estimate costs for the projected program for the first five years. Indicate amounts to be adsorbed out of current sources of revenue and needs for additional appropriations (if any). Commit to provide adequate funding to initiate and sustain the program.

Our proposed program can be fully implemented with little new costs to UL Lafayette. This includes no new additional funds required for supplies, operating expenses, or travel. Costs incurred by graduate assistantships represent a minimal but necessary investment and will be matched by industry-supported internships, and offset by tuition revenue.

In preparation for the new program, a number of initiatives will be implemented as needed to assure long-term support of the program:

1. Two full-time instructors previously assigned to the UNIV 200 course (no longer required by most programs) will be assigned to the basic introductory informatics courses, thus freeing terminally-qualified faculty to focus on upper-level and graduate courses;
2. Courses assigned will be re-arranged so that qualified faculty will support teaching courses in the MSI program ; and

3. Academically-qualified adjunct faculty working for federal agency partners will be tasked as necessary to teach appropriate courses.

Besides the four graduate assistantships requested from UL Lafayette, many will be funded by external research funds and by industry partners, either through the creation of company-sponsored assistantship or corporate funding as a business recruiting tool for graduates. The efforts of the Office of Development will be engaged to develop a corporate funding campaign, and evidence of success will be provided in the full proposal.

Finally, Master's students will have full access both to the UL Lafayette and the LSU libraries, as well as resources provided through the LOUIS consortium, so no additional library costs are anticipated.

CERTIFICATION:

_____   _____
Chief Academic Officer   Date

_____   _____
Chancellor/President   Date

_____   _____
Management Board   Date