##  <br> LOUISIANA BOARD OF REGENTS Division of Academic Affairs

## Guidelines for Academic Program Evaluation

Respond and comment as fully as possible. (If evaluating a proposal by mail, do not answer questions that require on-site observation.)

## A. Program Design

1. To what extent does the proposed breadth of course offerings represent a broad, wellintegrated knowledge of the discipline?

The core course offerings appear to reasonably well represent a broad, well-integrated knowledge of the Informatics discipline. Significant areas include: Informatics foundations; Systematic methods in Informatics; HCI; Network infrastructures, Systems development; IT governance, Risk Management, and Compliance. Additionally, the course elective options extend quite well the areas beyond the core. Finally, an Informatics capstone course would seem to integrate students' knowledge of Informatics.

A minor suggestion is to create a course on big data and cloud computing, which is a new IT thrust. It seems the current curriculum does not well cover the big data and cloud computing, but covers more on traditional Informatics aspects. Cloud computing topics could be added to the existing course "Informatics Network Infrastructures and Management" and Big Data topics could be added to INFX 531 Distributed Database Management. And thus, these suggestions could be easily remedied within the proposed curriculum or as a separate course.
2. If the program is interdisciplinary, to what extent is it coherent as a program?

As stated in 3(b):
elective coursework in a relevant discipline outside of INFX - for example, Biology, Business, Geology, Mathematics, Physics, Psychology, and other disciplines (as approved by the Informatics Graduate Coordinator);

Students may, with the approval of the Graduate Coordinator, elect to enroll in a maximum of six hours coursework in a discipline other than Informatics. This seems to be quite balanced and appropriate at MS level.
3. How well does this program take into account the way the discipline or field is moving?

As indicated in \#1 above, the core courses reflect very well the Informatics discipline as a balanced informatics curriculum. I recommend the program add a new course on Big Data and Cloud Computing.
4. How well do the requirements (curriculum, thesis) suit the program? Are they appropriate for a program of high quality?
In addition to a very solid and well-structured curriculum, students may opt either for PROJECT or THESIS. This is quite appropriate for a high-quality graduate program.
5. If the proposed degree is mainly for transfer purposes, have transfer/articulation agreements with proximate institutions been established adequately?
This question does not seem to be applied to the proposed program.
6. How do the program's history and/or design reflect upon its viability and growth?

The enrollment should continue to increase over time.
7. For an existing program: What has been the evaluation of the program over recent years? Has it been extensive and critical enough to maintain standards or improvement?

Not applicable.
7. Does the program use alternate, creative forms of delivery (i.e., distance learning technologies)? Please address the utility of online and/or interactive video approaches in offering educational opportunities in the proposed program.

Yes, from the proposal, it seems that a variety of delivery modes may be used (i.e., lecture, distance-learning, hybrid). As an applied graduate program, the proposed program would certainly be of interest to individuals who are fully-engaged in their personal and professional responsibilities.

## B. Need

1. To what extent do the region, state, or nation need students in this discipline, at this level, at this time?

Section 2 (Need) of the proposal addresses this quite well. The following excerpt seems to summarize this nicely:

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, including 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 because of competitive incentives, a skilled workforce, a business-friendly tax environment, and a unique quality of life.
2. To what extent is this program likely to address these needs effectively?

The following excerpt from the proposal (page 8) seems to encapsulate this concern in a convincing way:

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 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 generate a mutually beneficial interaction with this undergraduate program.
- Additional costs for program implementation are limited because we can rely heavily on existing faculty, staff, and research infrastructure.
- $\quad$ 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.


## C. Students

1. How realistic are enrollment projections?

The projected enrollments appear to be quite conservative and realistic.
2. Is there an adequate supply of qualified students in the area? Is there enough financial support to attract able students in competition with other institutions?
Data on current enrollments and undergraduate levels, along with the apparent "healthy" business climate in the Acadiana Region, it appears that there is an adequate supply of students in the area. In terms of sufficient financial support, the proposal indicates the following:

The University will provide support for two 2-year (continuing) graduate teaching or research assistantships for the first year of the program, followed by two additional 2year assistantships for the second year, as the program demonstrates its viability. This includes a stipend, as well as a tuition waiver. 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, significant 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, as appropriate) tuition, which will bring revenue to the University.
3. What specific attention is being given to recruiting minority and female students? Are there
special funds available for such students? What success has there been in these efforts?
This should be done at the university level.
3. If the program has a special interest in developing the academically disadvantaged through provisional admissions or other methods, are the ultimate standards for measuring the performance of such students equal to the normal standards? How soon are unsuccessful students removed from the program?

This is not applicable.

For an existing program:
5. Is the rate of progress of students to their degree satisfactory? If not, why not? Is the rate of attrition too great? If so, what is its cause?

## Not applicable.

6. How well do the students interact with and stimulate each other intellectually?

Not applicable.
7. Are students provided with enough and supervised teaching experience? Do their teaching assignments contribute effectively toward their mastery of the field?

## Not applicable.

8. Does the record of employment placement of graduates correspond to the institutional objectives and type of program? If not, what are the differences?

Not applicable.
9. What is the level of performance required in courses, and on qualifying and candidacy exams? What is the caliber of theses (by each area) completed during the past five years?
Not applicable.

## D. Faculty

Section 4 of the proposal covers in detail present faculty members who will be most likely involved in the program, and addresses Questions 1 through 9 below. From this section it appears that the program will be supported by highly capable and academically qualified faculty. A review of the School's website suggests that Teaching, Research, and Service are represented well by this group of faculty.

1. To what extent is the faculty's knowledge and understanding of their areas thorough and up-to-date? Can they cover the proposed range of courses now, adequately?
I see that there are multiple faculty members who can teach each course of the proposed program. I think the faculty can cover the proposed range of courses.
2. What is the caliber of its research and publication? How important to the field is the work being done?

The School's website provides substantial information about faculty research and publications, most of them are well respected. The work being done by the faculty will contribute directly to the breadth and depth of coverage among the different topics in the field of Informatics.
3. Is the faculty generally recognized nationally, by appointment to national honorary bodies, committee work, editorial service, or by other recognition?
The School of Computing and Informatics includes several faculty who are well-known as accomplished academics both nationally and internationally.
4. Are they enthusiastically involved in their work? Do they project their enthusiasm?

Information contained in the proposal, as well as the School's website, suggests strongly that faculty are enthusiastically involved in their work and project strongly their enthusiasm for their respective fields.
5. What is the caliber of their teaching? Is excellence in teaching a major consideration in decisions about salary, promotion, and tenure?

Beyond my review.
6. How do the students rate the faculty as teachers, advisors, and research leaders?

Beyond my review.
7. Is adequate faculty guidance available for students with regard to employment possibilities and opportunities? If not, why is it lacking?

Beyond my review.
8. What is your evaluation of tenure and recruitment practices?

Beyond my review.
9. Has the department been successful in its faculty recruitment and retention goals?

From the proposal and the School's website, it would seem that the School of Computing and Informatics has been very successful in meeting its faculty recruitment and retention goals.

## E. Resources

Note: Sections 5 and 6 of the proposal address issues pertaining to resources, and indicate clearly that library, other special resources, as well as facilities and equipment, are quite adequate and well supported. It is clear that library and other resources (including labs) exist within a very solid infrastructure. As such, I have no concerns about inadequacies in these areas.

1. To what extent are present library holdings adequate to initiate the proposed program?

I think a more important thing than library holdings is diverse availability of online support for digital libraries, digital access to journals, conference proceedings, other educational materials, support for hybrid education mixing online and face-2-face education mode, etc.
2. What are the limitations of the library holdings in each sub-discipline in which graduate seminars or degree options are offered and theses directed?
The proposed program should leverage existing library resources.
4. Are plans to improve the library's holdings adequate and realistic?

From Sections 5 and 6 of the proposal, it seems that plans to improve the library's holdings are both adequate and realistic.
3. To what extent are facilities and services adequate for the purposes of the program? If not, what particular inadequacies do you detect?
Facilities and services are adequate for purposes of the proposed program.
5. Are facilities and services adequate for the future plans of the department?

Beyond my review.

## F. Administration

Is the proposed administrative structure appropriate? Are there any obvious advantages or disadvantages to this proposed structure?

The proposed program will be administered by the Informatics Program, an existing unit within the School of Computing and Informatics. This School currently oversees the following programs:

## B.S in Computer Science

B.S. in Informatics
M.S. in Computer Science
M.S. in Computer Engineering

Ph.D. in Computer Science
Ph.D. in Computer Engineering
This clearly shows an appropriate leveraging of existing programs and infrastructure to strongly support a new program that aligns quite well with these programs.

## G. Accreditation

Is information on specialized, programmatic accreditation presented? Per Academic Affairs Policy 2.13 Program Accreditation, are Regents' accreditation requirements addressed (if applicable)?

Not applicable. I am not aware of any accreditation body for the Informatics discipline in the nation.

## H. Related Fields

Does the program have sufficient support from related fields or programs? If not, indicate to what extent sufficient support is needed.

The program seems to have sufficient support from existing related programs (please see the above Section F).

## I. Costs

1 Is the proposed budget sufficient to launch a quality program?
Yes, the "SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED PROGRAM" indicates a sufficient budget to roll out a quality program such as the M.S. in Informatics.

2 Is the amount of financial support available sufficient to sustain the program at high quality?
Yes, the amount of available financial support is sufficient to sustain high quality for this program.

3 Is it likely that adequate financial support will continue to be available to the program from external sources?

Yes, it appears that adequate financial support will continue to be available to the proposed program.

4 Is institutional support firmly enough committed for the program to continue at high quality?
Yes, the University support is clearly committed to the support for the program to continue at high quality.

## J. General Assessment, Comments, and Suggestions

1. Is the program realistic?

The proposed program appears to be realistic and timely.
2. What are this program's notable strong and weak points?

Strong points include: an excellent curriculum design; detailed plan for launch; leveraging of existing infrastructure and resources; excellent faculty; support by the community and the university; etc

Weakness: add some big data and cloud computing aspects. See the comments in the first question.
3. Please make any comments regarding aspects of the program not covered in this review which you think should be described.

This is an excellent proposal, and I support it with no reservation.

