

Graduate Program Review Committee Report

**April 2008
CSIS Department**

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1. **Committee**

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2. **Purpose**

The **Graduate Program Review Committee** is charged by the CSIS Chair to review the MSIS and MSACS programs for potential areas of improvement. The committee's expected deliverable is a report itemizing recommendations for improvement and justifications for each recommendation. The committee also provides information and data supporting the recommendations.

The areas the committee considered under this review included:

1. Admissions
2. Assistantships
3. Curriculum

3. **MSIS Program Review**

3.1 **Overall Assessment**

The key focus of this review is transparency and faculty involvement. One issue of concern is the **admission process** to address the number of reviews. The other concern is the **assistantship process** to address concerns about efficiency and transparency. The committee has specific recommendations listed below.

3.2 **Recommendations and Justifications**

3.2.1 **Admissions Process**

3.2.1.1 Recommendation: Improve the admission review process

The committee acknowledges the difficulty in organizing effective reviews of applications, especially during the summer. We recommend a two-step approach:

Step 1: Change the admissions process to require only a single review if an applicant meets all entrance requirements.

Step 2: If the applicant doesn't meet all entrance requirements, then 3 or more faculty reviews would be required with a majority rule approach.

Justification

In a review of a sample of 20 applications, drawn from the files of current students, it was noted that 60% (12 applications) received fewer than three reviews. Of those, 15% (three applications) did not meet the complete admissions requirements and were conditionally admitted.

Streamlining the process as recommended will make it easier to focus attention on those applications that really need multiple reviews.

3.2.2 Assistantship Review Process

3.2.2.1 Recommendation: Formally consolidate all graduate assistantship evaluation and approval processes at the department level.

A faculty working group should be charged to study existing assistantship processes and define a single process for reviewing and granting all assistantships. This group will make a recommendation for amendment to the department's by laws.

Justification:

The process is currently in place, however, the process needs to be formalized and consolidated with the MSACS process.

For the MSIS program, there is no evidence of a defined and disseminated process for evaluation and approval of assistantship applications. This process should be department-wide for both graduate programs due to the fact that a significant number of faculty members teach in both programs. Having one process for all assistantships in the department will make the evaluation process for applications more transparent and uniform. One process also helps provide oversight of work expectations from funded students and centralize the oversight effort at the department level.

3.2.3 Curriculum Issues:

The committee did not find any areas of concern in the MSIS curriculum, therefore the committee has no recommendations in this area.

4. MSACS Program Review

4.1 Overall Assessment

The key focus of this review is transparency and faculty involvement. One of the issues of concern is program quality. The decision making process is not sufficiently transparent to the faculty. Faculty need to be involved in decision making. This review articulates recommendations for improving the following areas of the program:

- the **admission process** to address the concern with the quality of admitted students to the program.
- the **assistantship process** to address concerns with the review and allocation of assistantships to faculty.
- the **curriculum** to address concerns with program structure, program quality and decision making process.

Overall, the MSACS program needs a systematic revision with emphasis on the above areas. The committee has specific recommendations listed below.

4.2 Recommendations and Justifications

4.2.1 Admissions Process

4.2.1.1 Recommendation #1: Improve the admission review process

The committee acknowledges the difficulty in organizing effective reviews of admissions applications, especially during the summer. We recommend a two-step approach:

Step 1: Change the admissions process to require only a single review if a applicant meets all entrance requirements.

Step 2: If the applicant doesn't meet all entrance requirements, then 3 or more faculty reviews would be required with a majority rule approach.

4.2.1.2 Recommendation #2: More faculty involvement with admission reviews

The committee recommends that more MSACS faculty be involved with the admission reviews.

4.2.1.3 Recommendation #3: Analysis of admissions criteria on program quality

The committee recommends a more thorough review of admissions criteria to determine the effectiveness of the admissions process and to determine if there are any deleterious effects in admitting many under-qualified students.

Justification

Initially, a sample of admission folders was examined. The findings warranted a more thorough examination. A study was made of the admissions process for 140 MSACS students. Admission folders were examined for these groups of students: current students (30 students), graduates (70 students), students in progress (28 students) and students accepted but not matriculated (12 incoming students). Data collected included the number of reviewers, the undergraduate GPA of the student, whether the student had a 'related' undergraduate major and the year of the admission review. The term "in progress" means that students are still nominally active in the program but are actually not enrolled in courses.

Admission to the MSACS program is determined by a review by faculty of candidate admission folders. The process specifies criteria for admission, including a minimal GPA and that a student have a CS related undergraduate degree. If the student doesn't have a CS related undergraduate degree, work experience in the field is considered. Also, three faculty are to review each application.

The committee is concerned that stated review processes are not being followed. The higher percentage of students who are in progress but had deficient reviews compared to those who have graduated suggests that stricter reviews would help determine which students were more likely to succeed in the program.

The committee is also concerned that admitting many under-qualified students might have a negative effect on course quality. This is based on past discussions among faculty.

The committee notes that very often the applications did not have the required 3 reviews. Indeed, among current students 80% of the applications were reviewed by one faculty member. Among students who have graduated, 74% received only one review. Among students in progress, 89% received only one review.

The committee also notes that, among students who have graduated, 35% failed to meet one or another of the admission criteria (GPA and undergraduate major) but received less than three reviews, usually only one. For students in progress, there are 42% who were admitted but failed to meet one or another of the admission criteria while receiving less than three reviews, again, usually only one. For current students, 23% failed to meet one or another of the admission criteria but received less than three reviews, usually only one.

Examining the admissions folders of incoming students shows that attention is being paid to the problem. Nevertheless, further improvement is important. The recommendations made above should help make further progress on focusing attention on less well qualified applicants.

Data obtain from KSU's Graduate Admissions Office is consistent with the above findings. In particular, we note that only 2 students have been rejected for admission to the program in its entire history. The committee recognizes that the MSACS program has reached the maturely level to seriously consider the above recommendations to improve overall program quality and student success.

4.2.2 Assistantship Review Process

The published MSACS assistantship policy does not adequately articulate the process of approving and allocating assistantships to faculty members, a concern noted by the committee. The following recommendation aims to bring this process in line with the existing departmental process for graduate assistantships and enhance transparency and participation in decision making.

4.2.2.1 Recommendation: Consolidate all graduate assistantship evaluation and approval processes at the department level.

A faculty working group should be charged to study existing assistantship processes and define a single process for reviewing and granting all assistantships. This group will make a recommendation for amendment to the department's by laws.

Justification:

In examining the MSACS GA1/GA2/GRA assignments, some faculty members have received numerous assistants, while others have received none, although they have applied. This raises a concern because of the lack of transparency in the approval process.

For the MSACS program, there is no evidence of a defined and disseminated process for evaluation and approval of assistantship applications. This process should be department-wide for both graduate programs due to the fact that a significant number of faculty members teach in both programs. Having one process for all assistantships in the department will make the evaluation process for applications more transparent and uniform. One process also helps provide oversight of work expectations from funded students and centralize the oversight effort at the department level.

4.2.3 Curriculum Issues:

The committee notes three concerns. The structure of the MSACS curriculum should be simplified. The committee is also concerned about program quality. Finally, the decision making process is not transparent to the faculty and does not sufficiently involve faculty.

The following recommendations are intended to simplify the program and ease the navigation of its structure. These recommendations will also work towards improving the quality of the program. And these recommendations will help make program decisions more transparent to the faculty, and engage more faculty in the decision making process.

4.2.3.1 Recommendation #1: Remove foundation courses (CS 6000, CS 6001, CS 6002, and CS 6003) from the program and implement conditional admission status.

The committee recommends that the MSACS program adopt the MSIS conditional admission model (discussed below), admitting under-prepared students as MSACS-Interest (MSACSI) until required foundation knowledge areas are satisfied.

The committee further recommends considering a wider set of options for conditionally accepted students. Possible options for conditionally admitted students may include:

1. Students taking undergraduate courses in CS (with “B” or better grade) at any accredited college or university
2. Evidence of work experience in a particular foundation area could be used to satisfy a prerequisite in that area.

Justification:

The conditional admission model is more main stream and simplifies the structure of the program. Proliferation of 6000-level prep courses seems to be confusing to students and advisors. The above options will also provide better foundation for student success in follow up courses, which in turn will help improve the overall program quality.

This recommendation will address the problem of low enrollment in these courses, especially during the summer.

4.2.3.2 Recommendation #2: Remove current 6800-level courses from curriculum

Remove CS 6810: Strategic Computing and CS 6820: Computing in the Global Economy courses.

Justification:

These courses have no visible role in the curriculum and no contribution to the program’s areas of expertise. These courses were offered in Summer 2006, Fall 2006, and Spring 2006 with low enrollment (max of 7 students in either course).

4.2.3.3 Recommendation #3: Combine the project related courses into a single project course and involve more faculty in student supervision.

Combine CS 6940 (Applied Project Planning: 1 credit hour), CS 8940 (Directed Study: 4 credit hours), and CS 8945 (Project Presentation: 1 credit hour) into one course on Applied Studies (1 – 6 credit hours) and allow students to enroll in the course as needed with varying credit hours.

A faculty working group should be charged to develop a process to facilitate wider faculty involvement in supervising student applied studies.

Justification:

The effort involved in the project planning and presentation does not justify giving 2 hours of credit for CS 6940 and CS 8945. The recommendation is more inline with standard practice.

More faculty should be involved in mentoring students' projects and final project presentations. Other than faculty supervision of graduate assistants, there is no evidence of a variety of faculty being involved in student applied projects. The involvement of faculty with matching expertise enriches student experience and ensures/enhances the quality of student work.

The new departmental T&P Guidelines recognize faculty effort working with graduate students on Special Projects/Theses/Dissertation. Faculty gets 1.5 credit hours of course reassignment for each 2-semester graduate-level directed study provided meeting specific criteria outlined in the T&P guidelines document. The implementation of this recommendation will enable the realization of this new T&P guideline. The committee believes that this recommendation, along with the new T&P guideline, will further enhance the quality of the program.

4.2.3.4 Recommendation #4: Under the Thesis option model, eliminate required coursework and add the hours to the elective coursework.

Move the 6-hours of required coursework (CS 8411: "Embedded Systems and Microcontrollers" and CS 8625: "High-Performance Computing") to the elective coursework, resulting in 27 hours of elective coursework.

In addition, related elective courses may be grouped into defined areas of specialties representing the program's areas of expertise.

Justification:

The currently required courses do not provide foundation knowledge for the different areas represented by the 10 elective courses. The two courses are not necessarily related to a student's interest. This recommended change could encourage students interested in other areas to select the Thesis option.

Defined areas of specialties make this model attractive to students. The grouping of elective courses would clearly indicate to a student that is interested in the Thesis option the program's areas of emphasis. Also, the grouping of elective courses into areas of specialties facilitates student advising.

4.2.3.5 Recommendation #5: Assess student advising

The committee recommends a thorough assessment of student advising and student assignment to courses. This should be carried out with the focus on whether advising is

consistent with the catalog requirements. This will include auditing transcripts of students who have graduated.

Justification:

The committee notes that 31% (21 out of 72) of the students who received their degrees did not complete one required course. Graduates are expected to complete all required courses listed in the catalog. Advising should be straightforward and should follow the catalog. Advising anomalies are not in the best interest of the program and preparedness of graduates.

The committee reviewed published course schedules from the MSACS website. The committee notes the following:

- there are cases where the course schedule contradicts the catalog
- the multiplicity of program options is confusing
- in some cases, prerequisite structure is not followed

This is evidence of the overly complex nature of the program curriculum.

4.2.3.6 Recommendation #6: Curriculum structure review

The committee recommends a review of prerequisites structure, catalog course descriptions, and course objectives and learning outcomes.

Justification:

These improvements will enhance transparency, faculty involvement, and program quality. We reviewed the MSACS course schedule and noticed inconsistencies with the catalog. This is evidence of an overly complex curriculum. This also contributes to faculty inability to adequately prepare and plan courses due to the lack of an adequate prerequisite structure.

5. Sources

- MSIS original program proposal submitted to the GA BOR
- MSACS original program proposal submitted to the GA BOR
- MSIS AOL Report (most current)
- MSACS AOL Report (most current)
- MSIS Admission documentation and files
- MSACS Admission documentation and files
- MSIS/MSACS GA1/GA2/GRA documentation and files
- MSIS/MSACS past course offerings (Banner)
- KSU Graduate Admissions Office (David Baugher)
- MSACS Course Schedules: <http://msacs.kennesaw.edu/Cohort-Plans.html>

6.Appendix

The appendix contains student names and confidential information – as a result, the appendix sources are on file