I. Program

1. **Assess program purpose, structure, and requirements as well as formal mechanisms for program administration and monitoring.**

The purpose of the program is to meet a growing need in the economy for highly trained technicians, competent in quantitative fields, yet possessing the insights necessary to apply those skills in the field of finance.

The structure of the program seems adequate for the purpose and is similar to that of other programs.

2. **Comment on the special focus of this program, if any, as it relates to the discipline.**

Computational finance is an important and growing field within the discipline. The financial crisis of 2008-2009 and its ongoing aftermath has heighten the need for rigorously trained experts in the field, particularly as the field relates to financial risk management.

3. **Comment on the plans and expectations for continuing program development and self-assessment.**

The proposal’s assessment plans need to be adjusted to better conform to the acceptable and common practices for assessment.

For example, student course grades are not acceptable as benchmark criteria for assessing programs.

The goals within the assessment plans, themselves, are adequate. Rather than using course grades the faculty should focus on embedded assessments.

4. **Assess available support from related programs.**
There appears to be support from the MS-Finance program within the College of Business and from within the GCCIS there is support from the MS-Computer science program.

The extent to which this support would allow for the combination of resources or classes is not clear.

5. (Only for programs requiring master plan amendment.) What is the evidence of need and demand for the program locally, in the State, and in the field at large? What is the extent of occupational demand for graduates? What is the evidence that demand will continue?

II. Faculty

6. Evaluate the faculty, individually and collectively, in regard to training, experience, research and publication, professional service, and recognition in the field.

Collectively, and individually, the faculty appear to have terminal degrees in the appropriate fields, a level of research productivity appropriate for a master-granting institution, and adequate teaching experience.

Computer Science Faculty
Dr.’s Raj, Liu, and Howles possess Ph.D.’s from the University of Washington, Virginia Tech and Nova Southeastern, respectively. Further, they have all actively published in the field of computer science.

Finance Faculty
Dr.’s Hoi, Robin, and, Gold possess Ph.D.’s from Arizona State University, SUNY Buffalo, and SUNY Binghamton, respectively. Again, they each have published a number of journal articles.

Mathematics Faculty
Dr. Broooks possess a Ph.D. from the University of Guelph and numerous research presentations and publications.

7. Assess the faculty in terms of size and qualifications. What are plans for future staffing?

The program calls for teaching 6 finance courses, 2 data analysis (computer science) courses, 2 mathematics courses.

Given the existing faculty it is likely that the program will need to add at least one faculty member in finance as this is where the bulk of the coursework is.

Caveats to this assessment would be that staffing needs should be determined in light of existing workloads, projected enrollment for existing courses, and a judicious use of adjunct faculty in lower level courses.

8. Evaluate credentials and involvement of adjunct and support faculty.

N/A
III. Resources

9. Comment on the adequacy of physical resources and facilities, e.g., library, computer, and laboratory facilities; practica and internship sites; and support services for the program, including use of resources outside the institution.

Those who practice computational finance, whether it be for risk management, investment strategy, portfolio management, or hedging, all require access to up to date quantitative information related to the finances of individual companies, to macroeconomic conditions in the domestic country and around the world, to monetary policy, and to the derivatives markets. In training students for occupations in such fields it is important that they master one of the commercial databases that practitioners use in making decisions.

One such database is available through a Bloomberg terminal. Bloomberg terminals are available for student use on many campus around the country, and it would behoove RIT to have such access for its master students in the MS in Computational Finance program. Such access would also be of benefit for the existing MS-Finance program, as well as for the accounting faculty and business law courses.

Thus, I would recommend having access to Bloomberg or similar commercial financial database.

10. (Only for programs requiring master plan amendment.) What is the institution's commitment to the program as demonstrated by the operating budget, faculty salaries, and the number of faculty lines relative to student numbers and workload.

IV. Summary Comments and Additional Observations

11. Summarize the major strengths and weaknesses of the program as proposed with particular attention to feasibility of implementation and appropriateness of objectives for the degree offered. Include any further observations important to the evaluation of this program proposal and provide any recommendations for the proposed program.

The major strengths of the program are that it is a field that has seen increased demand following the financial crisis. Regulations that have been implemented following the crisis are likely to cement the need for highly trained, quantitatively astute financial managers and analysts.

The program draws upon well-qualified faculty and many existing resources.

The weakness of the program lies in staffing needs going forward and financial database resources. These weakness are, however, small in comparison to the programs strengths.