GUIDELINES*

FOR

THE MASTER'S DEGREE

IN THE

DEPARTMENT OF COMPUTER SCIENCE

KANSAS STATE UNIVERSITY

SEPTEMBER 1982

*In order to be consistent with the Graduate School requirements, much of the Graduate Faculty Handbook is paraphrased, amplified, and/or reiterated in this document.

I. INTRODUCTION

The purpose of this set of guidelines is to help students formulate their degree programs by setting forth departmental and university standards. Students are expected to adhere to these standards whenever possible. If exceptions are warranted, the student's advisor must be consulted to determine legitimate, alternate means of meeting the standards. Additional information is published every semester in the form of the Student Guide for Masters and Doctoral Degrees, which is available free of charge from the Graduate School Office each semester and in the Graduate Student Handbook published by the Graduate Student Council each year.

The Master of Science requirements are those of the faculty of the Computer Science Department at KSU. Certain other regulations are imposed by the KSU Graduate School and are described in the "Graduate Faculty Handbook". It is the student's responsibility to know and satisfy all relevant requirements. It is the responsibility of the Graduate Studies Committee of the Department of Computer Science at KSU to oversee the application of these guidelines.

Implicit in this responsibility is a commitment by the Graduate Studies Committee to keep the student informed of the committee's view of his or her progress towards the graduate degree. In keeping with this commitment, an annual review of all graduate students is scheduled each January. The result of this meeting is a written evaluation of each student's progress. This evaluation will be transmitted to the student and a copy will be placed in his or her permanent and open record.

Every graduate student must maintain a 3.0 overall grade point average in order to be considered a graduate student in good standing. Accordingly, students who do not maintain satisfactory progress in their graduate studies are subject to being placed on probation or being denied the privilege of continued enrollment in the university and students will be so notified of such action by the Dean of the Graduate School.

The individual requirements for the Master of Science degree are presented in the body of this document. Formal writing is considered an integral part of a student's acquisition of a Master of Science degree in Computer Science.

Graduate students are also expected to participate in the professional activities of the Department. This includes attending seminars and colloquia, suggesting improvements in curriculum (both graduate and undergraduate), and suggesting new teaching techniques.

II. REQUIREMENTS FOR ADMISSION

1. a Bachelor's degree from an accredited institution;

2. either a "B" average or better during the junior or senior year

   or demonstration of mature performance in the industrial environment;

3. experience equivalent to the breadth of material in a B.S. in Computer Science.

4. Application forms:

Graduate School:	Application and Information Blank (yellow)
Computer Science Dept.:	Application for Graduate Study (white)

   In addition to the above, International Students must have:

   - TOEFL: Score from Ed. Testing Service, Princeton, NJ (satisfactory score: 575)
   - KSU International Student Medical Certificate
   - Financial Statement: Graduate School

5. Submit Graduate Record Examination (GRE) Score in Computer Science to the Department.

III. REQUIREMENTS FOR MASTER OF SCIENCE

Candidates for the master's degree are normally required to spend one academic year in residence. Under special conditions, the residence requirement may be reduced. Each student must have an advisor and a Supervisory Committee to direct his or her pursuance of the M.S. With the aid of the Supervisory Committee, each student must complete a Program of Study which specifies the courses to be taken and the master's program option chosen to fulfill the M.S. requirement as defined in this document. Each student must take a final oral examination. The requirements for each step in this process are defined on the following pages. In all cases the time schedules of the Graduate School must be met.

A. Advisor and Supervisory Committee

During the first semester of residence, each student must select a faculty member to serve as academic advisor. This advisor will provide any necessary academic direction to the student as well as be responsible for review of the student's progress until a major advisor is selected.

As early as possible, the student must select a subject area for the thesis, project, or writing option, mutually agreeable with some faculty member who will then become the Major Advisor and Chairman of the Supervisory Committee. Two additional members of the faculty will be selected to complete the supervisory Committee.

B. Program of Study

Prior to the student's final semester, the student's Program of Study must be approved and submitted to the Graduate School. This document must specify the courses and options, chosen by the student and approved by the Supervisory Committee, which fulfill the requirements for the Master of Science degree. The Department encourages the student to present a written proposal for the thesis, report or writing option to the Supervisory Committee when the program of study is considered.

C. Specific Requirements for the M.S. Degree:

Six required courses are included in the M.S. curriculum.

CMPSC-670 Discrete Computational Structures (3 credit hours) (mathematical foundations and programming science)

CMPSC-740 Software Engineering (3 credit hours)

CMPSC-700 Translator Design I (3 credit hours; Prereq. 405, 305)

CMPSC-720 Operating Systems II (3 credit hours; Prereq. 420)

CMPSC-761 Data Base Management Systems (3 credit hours; Prereq. 561)

CMPSC-897 Graduate Seminar (1 credit hour)

One 800 level course which has a 700 level prerequisite is required.

Candidates for the M.S. degree must show competence in two areas: implementation and writing.

The implementation component may be satisfied by:

- conducting M.S. thesis research which includes a significant implementation project.

or - completing the course CS690 Implementation Projects

or - validated work experience (all work presented for validation must be in the public domain and well documented).

The writing component may be satisfied by:

- writing an M.S. thesis

or - writing an M.S. report

or - writing a publishable paper

Each student (in consultation with the Supervisory Committee) must select one of the following three options.

1. Write a thesis for six to eight semester hours of credit.

2. Write a report for two semester hours of either research or problem work on a topic in Computer Science.

3. Elect to take formal course work only, and show evidence of scholarly effort.

If option 3 is selected, the department interprets "evidence of scholarly effort" as follows: the student, in conjunction with the major professor, is to produce a paper which is to be submitted for publication with the student being the principal author. The format and content are not controlled by formal university regulations.

Under all three options, the student must produce some type of formal corpus. The report or thesis produced must meet the Graduate School standards . The report or thesis should represent the best writing possible by the student and is not to be written or extensively edited by the major professor. Candidates should begin writing their thesis or reports early so there will be enough time for review by the supervisor and rewriting by the student. Tentative copies of theses and reports are due in the major professor's office approximately two (2) months prior to graduation. Approval forms are due in the graduate office approximately six (6) weeks prior to graduation. The oral examination must be completed approximately one month before graduation, and a final copy of the written work must be approved about (3) three weeks before graduation.

The Graduate School requires the submission of three copies of the master's report or thesis, two of which are archived and made available in the Library. For option 3, the Department requires that the student supply two bound copies of the paper to be placed in the departmental library upon the passing of the oral examination.

When all the course work has been completed and the requirements for one of the three plans have been met, the student may request the Computer Science Department to schedule the final oral examination and must then inform the Graduate School of the time and place of the examination. This examination is normally scheduled approximately one (1) month prior to graduation. The examination will consist of a defense of the student's scholarly effort and its foundations in the student's

technical background. It is the responsibility of the Supervisory Committee to administer the examination and to report the results to the Graduate School. It is the responsibility of the student to circulate a copy of his or her writings to each member of the Committee at least one week in advance of the scheduled examination, to make a copy of the writing available at the examination and to prepare a formal oral presentation describing the work.

A second attempt of the final oral examination cannot be retaken in less than two weeks nor more than twelve months after the failed examination unless an extension is granted by the Dean of the Graduate School. No third trial is allowed.