

**SCHOOL OF TECHNOLOGY**

**Master of Science in Technology Management**

**Graduate Student Handbook**

**North Carolina A & T State University**

Interim Associate Dean  
*Dr. Clay Gloster – [cgloster@ncat.edu](mailto:cgloster@ncat.edu) 336-334-7717*

Last Revised 11-8-2012

## Table of Contents

	Page No	
Preface -----	2	
Administrative Contacts -----	3	
MSTM Program Description -----	4	
Summary of Procedures for MSTM Degree -----	6	
MSTM Plan of Study -----	9	
MSTM Internship Procedures (Guidelines) -----	10	
MSTM Internship Application Forms -----	12	
Master's Project Description -----	16	
Master's Project Application Forms -----	17	
Comprehensive Exams – Policies & Procedures -----	19	
Final Clearance for Graduation -----	20	
Colloquium Presentation Guide -----	21	
Acknowledgement Form -----	25	

## **Preface**

This *School of Technology Handbook* has been created for the students in the Master of Science in Technology Management (MSTM) program. The Graduate School has a catalog for all graduate students. This School of Technology handbook is a supplement to the Graduate School catalog. This booklet will address policies and procedures that are specific to the School of Technology. It is recommended that you get and read a copy of the Graduate School Catalog at the Graduate School website at (<http://www.ncat.edu/academics/grad/index.html>).

## **Administrative Team and Contact Individuals for the MSIT**

Dean, School of Technology

*Dr. Ben Uwakweh – bouwakwe@ncat.edu - 336-334-7567*

Associate Dean

*Dr. Clay Gloster – cgloster@ncat.edu - 336-334-7717*

Assistant Dean Student Success

*Dr. Sherry Abernathy – sfabena@ncat.edu – 334-334-7359*

Built Environment

*Dr. Robert Pyle – pyle@ncat.edu - 336-334-7590*

Chair, Computer Systems Technology

*Dr. Clay Gloster – cgloster@ncat.edu - 336-334-7717*

Interim Chair Graphic Communication Systems and  
Technological Studies

*Dr. Vincent Childress – childres@ncat.edu - 336-334-7550*

Chair, Applied Engineering Technology

*Dr. Ji Yao Shen – shen@ncat.edu - 336-334-7585*

# Master of Science InTechnology Management

## Program Description

The School of Technology at North Carolina A&T State University offers a Master of Science in Technology Management (MSTM) degree. This program is coordinated by the School of Technology and is designed to increase students' understanding of industrial management challenges in an array of technical areas and to explore effective methods for dealing with accelerated technological change.

## MSTM Electives

The MSTM degree program has several electives in technical areas. The student program of study will determine the electives under the supervision of the department chair and faculty advisor related to the student's background. The difference in each set of electives will be in the area of Management Electives and Technical Electives.

*Note: Each student should consult with an advisor in the department of interest to develop a program of study.*

Electives are in the following areas:

- Applied Engineering and Technology
- Information Technology
- Graphic Communication
- Construction Management
- Environmental Safety and Health

## Admission Requirements

The Master of Science in Technology Management, within the School of Technology, requires the GPA of 2.8, a letter of application, and three reference letters. Please contact the Graduate School Office for more information.

## Program Objectives

The MSTM degree program is built upon the competencies achieved at the baccalaureate level in the industrial technology curriculum and thus enables students to secure application-oriented "technical-management" positions in today's industrial environment. Specifically, this program is designed to prepare technical-management professionals and enhance their proficiencies in the following areas:

- Planning, organizing and management of technology, people, and resources;

- Applying and controlling the use of various high technologies e.g., computer aided-drafting and design (CADD), graphic communications systems, computer-integrated manufacturing (CIM), machine vision and photonics, telecommunications and wireless communications,
- Construction planning and scheduling, Project management, Cost estimating and Project control systems.
- Occupational safety and health assessments, Safety management and control systems, etc.
- Control processes to improve quality, reliability, and productivity.
  
- Human resource management and the development of a changing workplace to achieve organizational goals, problem solving and creative thinking skills.

### **Target Audience and Career Opportunities**

This program is designed to serve the diverse needs of people who are interested in pursuing careers in technology. Included in this group are the following:

- People currently employed in industrial management positions that have professional growth aspirations;
- Individuals recently completing their undergraduate study and want additional preparation prior to embarking on a career in industry;
- Students interested in entering an advanced graduate degree program (Ph.D., Ed.D, etc.) and whose ultimate goal is university teaching and/or research.

Graduates of the program should be able to perform more creatively and competently in leadership roles involving planning, problem solving, and decision-making. Additionally, the program is designed to enhance student competencies in the areas of research and scholarly writing.

## Summary of Procedures for the Master's Degree

All students pursuing a master's degree **must** do the following:

- Report to the department of your area of interest (example: ECT, AET, CMOSH or GCTS) to be assigned a graduate advisor, and develop a plan of work with the advisor or chairperson
- Submit approved plan of study to the Associate Dean SoT and graduate school for final approval
- Comply with requests from the School of Graduate Studies for updated copies of transcripts from previous colleges or universities
- Sign a patent agreement and file with the School of Graduate Studies
- Be subject to continuous registration policy until graduation
- Pass a language examination, if required
- Pass a written examination, if required
- Apply for graduation before the deadline posted on the academic calendar
- Submit a diploma order form by the end of the sixth week of the semester or summer session of anticipated graduation
- Maintain a grade point average of at least 3.0 for the degree requirements as well as on overall graduate coursework at North Carolina A&T State University.

All degree requirements must be completed within six calendar years beginning with the date the student commences courses carrying graduate credit applicable to the degree program, unless a more restrictive time limit has been established by the department/program or academic college/school.

### Students In Non-Thesis Programs

- A graduate advisory committee of two or more graduate faculty members must be appointed by the Coordinator of Graduate Programs or Chairperson of the student's department.

The master's degree student must submit a plan of graduate work during the term in which the student will complete 9-15 credits toward the degree sought. The student Graduate Advisor/Program Coordinator, Chairperson, and Associate Dean must sign the program of study form to indicate approval for the plan of graduate work. Upon approval by the School of Graduate Studies the plan becomes the student's official guide to completing his/her program. To change this form, a justification statement from the Departmental Chairperson/Program Coordinator must be submitted with a new program of study form signed by all interested parties.

When all requirements (except completion of the coursework in the final semester) are satisfied and after the Master's Project is complete, except for such revisions as may be necessary as a result of submitting the written report, the Coordinator of Graduate Programs or Chairperson of student's committee will request that the student register for the written comprehensive examination.

The comprehensive examination will be scheduled and administered only to the students enrolled in MSTM 788. The date and time of the comprehensive examination shall be announced. Students shall only be allowed to sit for the examination on the date and time established by the SOT Graduate Committee.

The final examination grade will be posted at the end of the semester that the student is enrolled in MSTM 788. This report should be received by the School of Graduate Studies within time frame set by the School of Graduate Studies.

The deadline date for unconditionally passing the comprehensive examination in order for the student to graduate in a given semester appears in the Academic Calendar in the catalog as well as other calendars of the School of Graduate Studies.

### **Students in Thesis Programs**

A graduate advisory committee of three or more graduate faculty members must be selected in consultation with the Coordinator of Graduate Programs. It is recommended that two committee members come from the student's academic department, and one from another department within the School of Technology.

It is strongly recommended that the student meets with his or her advisor early in the program to discuss possible thesis topics.

The master's degree student must submit a plan of graduate work during the term in which the student will complete 9-15 credits toward the degree sought. The student Graduate Advisor/Program Coordinator, Chairperson, and Associate Dean must sign the Program of Study to indicate approval for the plan of graduate work. Upon approval by the School of Graduate Studies the plan becomes the student's official guide to completing his/her program. To change this form, a justification statement from the Departmental Chairperson/Program Coordinator must be submitted with a new program of study signed by all interested parts. A plan of graduate work must be prepared by the student, in consultation with and with the approval of his/her graduate advisory committee.

A formal thesis proposal must be approved by the student's thesis committee before the student can begin his or her research study. A copy of the approved proposal must be kept in the student's file by the academic advisor.

A copy of a preliminary draft of the thesis must be submitted to the chair of the student's advisory committee. The chair and the student shall make all necessary corrections before distribution to the committee members.

- If you entered the program beginning the fall semester of 2011 or later, the comprehensive final exam is NOT required for a thesis student. If you entered before that semester, the comprehensive examination will be scheduled and administered only to the students enrolled in MSTM 788. The date and time of the comprehensive examination shall be announced. Students shall only be allowed to sit for the examination on the date and time established by the SOT Graduate Committee.
  
- The final examination grade will be posted at the end of the semester that the student is enrolled in MSTM 788. This report should be received by the School of Graduate Studies within time frame set by the School of Graduate Studies.
  
- The deadline date for unconditionally passing the comprehensive examination in order for the student to graduate in a given semester appears in the Academic Calendar in the catalog as well as other calendars of the School of Graduate Studies.
  
- When all requirements (except completion of the coursework in the final semester) are satisfied and after the substantial completion of the thesis, the thesis advisory committee chair will schedule an oral defense.
  
- Upon satisfactory defense of the thesis, the student shall continue to work diligently to complete any recommended corrections in order to meet the School of Graduate Studies submission deadlines.
  
- A copy of the **final** defended thesis is submitted to the School of Graduate Studies' Administrative Assistant for approval in accordance with the specifications prescribed in the *Thesis and Dissertation Manual*.
  
- Upon approval, the student must submit four copies of the thesis, signed by each member of his/her advisory committee, to the School of Graduate Studies.

□ The deadline date for submitting four copies of the thesis to the School of Graduate Studies in order for the student to graduate in a given semester or summer session appears in The University Academic Calendar as well as other calendars of the School of Graduate Studies.

Other procedures for the Master of Science (MS) and course requirements are found in the Graduate School Student Guidebook and Graduate Catalog.



## MSTM Internship Procedures

The graduate internship is a graduate level experience providing an opportunity for gaining additional competencies and proficiencies or applying theory in realistic settings in industry, business or other agencies. Locating an appropriate internship experience is the responsibility of the student. In the best possible situations, the student will be able to perform valuable services and at the same time gain an experience in professional development not possible in the classroom. These courses also contribute to the mission of the university in strengthening relationships between the university and the broader external community. The student must submit a scholarly report, which serves as a vehicle by which the student gains technical and /or management knowledge as well as synthesizing the work experience.

### Procedures

**(Steps one – Form must be completed during the *term* prior to the student’s internship experience).**

1. Guidelines: The student develops a graduate internship prospectus of no greater than 450 words. The prospectus is a proposal that should include items such as the following:

- Justification for participation in the graduate internship.
- Identification of the skills and knowledge that the student will acquire.
- The activities description proposed in the internship
- Proposed methodology to be employed in completing the above activities
- Specific proficiencies relevant to the student’s program
- The type of company/industry or agency that the student desires to target
- The type of activity/position that the student would like to target (*the student is to provide a general description of what the learning experience will entail*)
- Signature line for major advisor

Upon completion of the prospectus and resume, the student schedules a conference with the major advisor. During this conference, the advisor will review the prospectus and resume. Upon approval, the advisor will sign the document and provide appropriate copies to the student.

2. Items to be considered during the student/advisor conference should include:

- Internship employers and sources of employment.
- Identification of proficiencies and competencies to be developed through the internship experience.
- Measurement tools necessary to determine the successful completion of the above proficiencies.
- Develop a process to review procedures for employee/university relationship while the student is engaged in the internship experience.
- Review details and expectations of the graduate internship experience including specific competencies gained as a result of the experience.

3. Upon receipt and acceptance of an internship experience, the student will complete a Graduate Internship Application form (*attached*). The major advisor will review the form along with prospectus and resume for final approval. (*An electronic copy of the application can be obtained from the program coordinator*).
4. Each Departmental Track will have in place a procedure for the registration of the appropriate internship course number, an internship advisor and other administrative requirements necessary for the awarding of credit for the internship experience.
5. The student is required to meet the following requirements:
  - Provide a weekly log of activities (*format to be determined through discussion with university supervisor*).
  - Submit an interim report to the university supervisor approximately half way through the internship experience or at mutually agreed to times.
  - The weekly log should be appended to the interim report.
  - Final Report: (*format to be determined through discussion*). The final report is to be a scholarly product to be word processed and include cited references following the APA format. The final report is due to the university supervisor during final week of the semester in which the student is participating in the internship experience for assignment of appropriate credit.
  - The Interim Report as well as the Final Report should address specific proficiencies and competencies gained during the internship experience.
  - The university supervisor will arrange *at least one to two contacts* with the student and his/her supervisor to review the activities of the internship experience prior to the assignment of a final grade.
  - Assignment of a final grade for the internship experience is the responsibility of the appropriate university supervisor of the student based upon accepted practice.
6. Assignment of a final grade for the internship experience is the responsibility of the appropriate departmental representative or the advisor of the student. Consideration of the attainment of stated proficiencies are to be a significant factor in final grade determination.
- 7. Academic Advisors must emphasize the correct procedures for developing paperwork related to internships. Students are required to seek out the internship professor of record. Students must enroll under the appropriate instructor of record in their major area.**
8. It is the responsibility of the student to contact the instructor of record as soon as soon as the classes start. Failure to contact the instructor early in the semester may result to unsuccessful completion of the internship.

**MSTM Internship Application**  
(This Application to be completed during the  
Semester PRIOR to the internship experience)

Student Name \_\_\_\_\_ Date \_\_\_\_\_  
Student ID # \_\_\_\_\_ Area of Concentration \_\_\_\_\_  
Campus Address \_\_\_\_\_  
Home Address \_\_\_\_\_  
Phone: Home \_\_\_\_\_ Work \_\_\_\_\_  
Email address \_\_\_\_\_  
Major Advisor/Program Coordinator/Chairperson \_\_\_\_\_

### **Student Must Submit Graduate Internship Prospectus**

Guidelines: The student develops a graduate internship prospectus of no greater than 450 words. The prospectus is a proposal that should include items such as the following:

- Justification for participation in the graduate internship
- Identification of the skills and knowledge that the student will acquire
- The activities description proposed in the internship
- Proposed methodology to be employed in completing the above activities
- Specific proficiencies relevant to the student's program
- The type of company/industry or agency that the student desires to target
- The type of activity/position that the student would like to target (*the student is to provide a general description of what the learning experience will entail*)
- Signature line for major advisor

### **Student Develop an Updated Resume and Schedules a Meeting with Major Advisor**

Guidelines: Upon completion of the prospectus and resume, the STUDENT schedules a conference with the major advisor. During this conference, the advisor will review the prospectus and resume. Upon approval, the advisor will sign the documents and provide appropriate copies to the student.

Items to be considered during the student/advisor conference should include:

- Internship employers and sources of employment.
- Identification of proficiencies and competencies to be developed through the internship experience.
- Measurement tools necessary to determine the successful completion of the proficiencies and competencies.
- Develop a process to review procedures for employer/university relationship while the student is engaged in the internship experience.
- Review details and expectations of the graduate internship experience including specific competencies gained as a result of the experience.

## Graduate Internship Prospectus

(Please address those items listed on page one describing the prospectus and attach a resume)

### Employing Company Information

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Name & title of employing supervisor \_\_\_\_\_

Phone No. of Supervisor \_\_\_\_\_ email \_\_\_\_\_

*Prospectus. ....*

## **Graduate Internship**

1. Identify specific proficiencies and competencies.

2. Measurement tools or methods to determine successful completion of the above proficiencies and competencies.

3. Time schedule for evaluation meetings with university supervisor. Include specific dates.

**The student is required to meet the following requirements:**

- Provide a weekly log of activities (*format to be determined through discussion with university supervisor*).
- Submit an interim report to the university supervisor approximately half way through the internship experience or at mutually agreed upon times.
- The weekly log should be appended to the interim report.
- Final Report: (*format to be determined through discussion*). The final report is to be a scholarly product to be word processed and include cited references following the APA format. The final report is due to the university supervisor during final week of the semester in which the student is participating in the internship experience for assignment of appropriate credit.
- The Interim Report as well as the Final Report should address specific proficiencies and competencies gained during the internship experience.
- The university supervisor will arrange at least one or two contacts with the student and his/her supervisor to review the activities of the internship experience prior to the assignment of a final grade.
  
- Assignment of a final grade for the internship experience is the responsibility of the appropriate university supervisor of the student based upon accepted practice.

**Signatures**

Student \_\_\_\_\_ Date \_\_\_\_\_

Major Advisor \_\_\_\_\_ Date \_\_\_\_\_

Company Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Departmental Chairperson of Concentration \_\_\_\_\_ Date \_\_\_\_\_

**(Copies to Student, Major Advisor, Departmental Chairperson of Track, and Associate Dean)**

## MASTER'S PROJECT

The Master's degree project is designed to be a culminating experience for the master's degree. It should be applications oriented and focuses on an actual project related to the student's technical discipline. The student selects a problem, either management or technical in nature, in consultation with a faculty adviser in his/her area of interest. The problem may be research or application oriented in nature. The standard American Psychological Association format will be required for the report. The course is intended to integrate the learning from classes taken in the degree program. A written proposal, which outlines the nature of the project, must be submitted to the departmental chairperson of the student track for approval. This course is only available to project option students.

### **The student is required to meet the following requirements:**

- Submit Master's project prospectus *a semester* before enrolling in the Master's Project course.
- Must have completed all core courses, one management elective, one technical elective and six additional hours for a total of 24 semester hours.
- The chairperson or graduate coordinator shall assign a project advisor to work with the student
- Student shall submit an interim report to the department chairperson and project advisor approximately half way through the master's project experience or at mutually agreed times.
- The student will arrange at least one to two contacts with the chairperson and his/her project advisor to review the activities of the master's project experience prior to the assignment of a final grade.
- Final Report (*format to be determined through discussion*). The final report should be a scholarly product; words processed, and include cited references following the American Psychological Association format. The final report is due to the university supervisor (departmental chairperson), project advisor and course instructor during final week of the semester in which the student is participating in the master's project experience for assignment of appropriate credit. ***It is important to stress that the Master's Project is a serious product of learning and should be considered more than simply a report.***
- Assignment of a final grade for the master's project experience is the responsibility of the appropriate advisor to the project of the student based upon accepted practice. The project advisor will send the appropriate grade to the instructor of record for posting.
- All MSTM students with project option are required to present their Master's Project to faculty members and peers within the School of Technology at a colloquium before a final grade is assigned.
  
- Students who failed to complete and present their projects during the colloquium shall not be awarded a passing grade.***
- See the Guide to the Colloquium in the back of this guidebook (p.23).***

**MSTM Master's Project Application**  
(This Application to be completed during the  
Semester PRIOR to the Master's Project)

Student Name \_\_\_\_\_ Date \_\_\_\_\_  
Student ID # \_\_\_\_\_ Area of Concentration \_\_\_\_\_  
Campus Address \_\_\_\_\_  
Home Address \_\_\_\_\_  
Phone: Home \_\_\_\_\_ Work \_\_\_\_\_  
Email address \_\_\_\_\_  
Major Advisor (Person to evaluate and supervise the student project) \_\_\_\_\_

**Student Must Submit Master's Project Prospectus**

Guidelines: The student develops a master's project prospectus of no greater than 500 words or one page. The prospectus is a proposal that should include items such as the following:

- Justification for participation in the master's project experience.
- Identification of the skills and knowledge that the student will acquire.
- The activities description proposed in the master's project.
- Proposed methodology to be employed in completing the above activities
- Specific proficiencies relevant to the student's program
- The type of problem or research that the student desires to target
- The type of activity/position that the student would like to target (*the student is to provide a general description of what the learning experience will entail*)
- Signature line for major advisor

**Student Schedules a Meeting with Major Advisor**

Guidelines: Upon completion of the prospectus, the STUDENT schedules a conference with the major advisor. During this conference, the advisor will review the prospectus. Upon approval, the advisor will sign the documents and provide appropriate copies to the department chairperson of student concentration for his/her approval.

Items to be considered during the student/advisor conference should include:

- Identify the problem to be researched or solved.
- Identification of proficiencies and competencies to be developed through the master's project experience.
- Measurement tools necessary to determine the successful completion of the proficiencies and competencies.

*Master's Project Proposal.....*

**Signatures**

Student \_\_\_\_\_ Date \_\_\_\_\_

Major Advisor \_\_\_\_\_ Date \_\_\_\_\_

Departmental Chairperson of Concentration \_\_\_\_\_ Date \_\_\_\_\_

Associate Dean for Graduate Studies \_\_\_\_\_ Date \_\_\_\_\_

**(Copies to Student, Major Advisor, Departmental Chairperson of the Program, and Associate Dean)**

## **Comprehensive Examination: Policies and Procedures MSTM**

When students pursuing a MSTM have completed all coursework or are enrolled in all remaining coursework identified on their Programs of Study and the Master's Project, they may submit an application to the Graduate School to take the Comprehensive Examination. To take the Comprehensive Examination the student is required to register in MSTM 788 – Masters Comprehensive Examination. The following information identifies the general make up of the exam as well as identifies responsible parties in the process. Thesis students admitted to the degree beginning fall, 2011 do not have to take the comprehensive final exam, and it should not appear on their program of study.

### **General Principles of the Comprehensive Examination for the MSTM Program**

- All MSTM students must pass a written examination.
- The written Comprehensive Examination is not a repetition of course examination but is an investigation of the student's breadth of understanding of the field of knowledge that their Program of Study has been designed to prepare.
- Questions of the Comprehensive Examination are prepared as a synthesis of the areas of the General Core, Technical Management, and Technical Electives.
- Comprehensive Examination Questions are developed by respective instructors, and administered by the SOT Graduate Committee.
- Evaluation of the written exam is coordinated by the student's Program Coordinator or Chairperson. The exams are graded by the student's instructors who set the exams.

### **The written examination will be evaluated based on the following conditions:**

1. **Pass** – The student must satisfactorily pass 6 of 8 courses.
2. **Conditional** - Any student who passed 5 of 8 courses will be awarded a conditional pass. The student must arrange to retake the three failed courses. A student who did not satisfactorily pass all the three courses upon re-examination will have to take the entire comprehensive exam over the following semester.
3. **Fail** – Any student who did not pass 5 of 8 courses (failed more than three) the first time must re-take the entire exam the following semester.
4. **Oral Defense** – If a student took the comprehensive examination two consecutive semesters and failed, an oral defense may be arranged by the graduate coordinator. The defense committee shall consist of all instructors whose exams the student has failed. An independent observer shall be appointed by the Associate Dean to sit in the oral defense. The student must satisfactorily pass all oral exams as determined by the respective instructors. If the student failed the oral defense, he or she is automatically removed from the program.

## Final Clearance for Graduation

It is the responsibility of each prospective candidate to ensure that he/she is on track to successfully complete degree requirements for his/her respective degree. The student is encouraged to meet with his/her academic coordinator, faculty advisor, and academic department head within the semester. The following must be completed and approval given by the student's department head of his/her successful completion of the program to the Associate Dean.

The chairperson of the degree program will certify that all program and university requirements have been met (not the School of Graduate Studies). The respective department chairperson must complete a final clearance checklist form for each prospective candidate, and submit to the School of Graduate Studies indicating whether he/she has or has not successfully completed all degree requirements. This form should be submitted to the Graduate School no later than the last official day of classes each semester.

- GRE score on file if required
- provisional admission status removed (if applicable)
- coursework completed
- a minimum 3.0 grade point average
- thesis/dissertation completed
- master's projects completed
- independent studies projects completed
- grades of "I" (incomplete) removed
- final comprehensive examinations completed
- licensure examinations (if applicable)

# A Guide for Preparing and Delivering Master's Project Presentations at the Colloquium

## School of Technology

### North Carolina A&T State University

Approved 2-3-2005

#### Introduction

The MSTM Master's Project course currently requires that enrolled students present their projects' rationale, literature review, methodology, findings, conclusions, and recommendations at a colloquium, which is normally scheduled near the end of each semester. This excludes the summer sessions.

In order to receive a grade in the Master's Project course, the student must make his or her presentation at the colloquium. If he or she fails to fulfill this obligation, then an "I" grade will be posted. It is important to note that I grades may only be changed to a final grade if a student is enrolled during the semester in which the professor intends to change the I to a final grade. Consult the School of Graduate Studies for any deadlines related to the changing of I grades to final grades.

#### Topic

In choosing a topic to research, the student may consider a variety of topics to investigate. The project may be a statistical research project of a descriptive, qualitative, quasi-experimental, or experimental nature. However, the project may also be a development project, which means that the student will be developing a new product or process (and the like) related to his or her area of study.

#### Human Subjects

**If humans are to be included as subjects for a study or development project, the student, the professor of record, and the department chairperson are responsible for passing the human subjects test, reporting the results of the test to the appropriate person in the Division of Research, and completing and submitting the Institutional Review Board (IRB) Human Subjects Application as described in the IRB Human Subjects rule book. If no human subjects are to be included in the study, the researcher is still to submit a form to the IRB to get verified that, in fact, the study includes no humans.** Upon receiving permission to conduct the study, the student may proceed with the study. To learn more about human subjects and procedures for obtaining permission to include humans in a study, contact the Human Subjects personnel in the Division of Research.

#### Prospectus

Using the form provided in the School of Technology's MSTM Student Handbook, the student should submit to the professor a brief prospectus that follows the format of the first three sections under the Format section below.

#### Format

If the student chooses to pursue a *statistical research topic* for the project, then the format of the presentation at the colloquium should follow this format:

##### Introduction

The introduction should include:

- some background on the problem and how it relates to the student's area of study or interest,

- a rationale for the study, and
- it should include a problem statement and/or a hypothesis.

#### Literature Review

The literature review should include a review of references that support the:

- rationale of the study,
- some detailed technical or managerial information that supports the study, and
- to some extent, the design of the methodology.

#### Methodology

The methodology portion of the presentation should highlight the:

- subjects, participants, and the objects of the study (quasi-experimental, qualitative, experimental),
- instruments used to gather data,
- timeline for the study, and
- statistical quantitative or qualitative analysis of the data.

#### Findings

The finding should be presented in the colloquium. In presenting the findings, the student should:

- only present highlights of representative data and its analysis,
- not present conclusions or recommendations based on the findings,
- provide summary charts and graphs when appropriate.

#### Conclusions and Recommendations

In this final section of the colloquium presentation, the student should first provide a finding and then present a conclusion based on that finding. After all of the conclusions have been related to the findings, the student should provide recommendations based on the conclusions and implications of the study. These may be addressed to both future research and/or implementation of the conceptual content of the study.

If the student chooses to pursue a *development project*, then the format of the presentation at the colloquium might be similar to the following format, but other formats may be deemed more appropriate by the student and the professor of record.

#### Introduction

The introduction should include:

- some background on the need for whatever is being developed and how it relates to the student's area of study or interest,
- it should include a problem statement.

#### Literature Review

The literature review should include a review of references that support the:

- rationale of the project,
- identification of specifications, constraints, and other parameters and criteria used to assess the value/success of the product or process being developed,
- some detailed technical or managerial information that supports the project, and
- approach taken in order to develop the product or process.

## Research and Development

The Research and Development portion of the presentation should highlight the:

- procedure used to develop the product or process,
- timeline for the development process,
- specifications, constraints, and other parameters and criteria that guide development,
- procedure for gathering any data if appropriate, and
- statistical quantitative or qualitative analysis of the data if appropriate.

## Results

The Results portion of the presentation should highlight the:

- characteristics of the resulting product or process, and
- extent to which the resulting product or process was developed and worked within specifications, constraints, and other parameters and criteria.

## Conclusions and Recommendations

In this final section of the colloquium presentation, the student should relate the results of the development project in order to state conclusions about its efficacy. After all of the conclusions have been related to the project, the student should provide recommendations based on the conclusions and implications of the project. These may be addressed to both future development projects and/or implementations of the conceptual content of the project.

## Reporting

It is suggested that when the student submits a final report to the professor for the Master's Project course, that he or she use one of the formats outlined above. That would include the prospectus and its three sections followed by the addition of the findings/results and conclusions and recommendations sections.

*It is important to note, that while this format is the same as, or similar to, the format for a thesis or dissertation, the Master's Project is not as involved or demanding as a thesis or dissertation. Nevertheless, the student should pursue excellence in the conduct of the project and the colloquium presentation.*

## Additional Rules

**The student** must:

- Submit the prospectus forms for the Master's Project to the advisor and the Associate Dean for the School of Technology by the end of the semester **preceding** the student's enrollment in the Master's Project course.
- Limit the time of each presentation to adhere to a:
  - 10 minute limit on the presentation, and
  - 5 minute limit on the questions/discussion that follow.
- Have no errors in spelling and grammar on the text on each slide of the presentation.
- Practice the presentation twice prior to arriving at the colloquium.
- Speak well and use no grammatical errors or errors of pronunciation.
- Face the audience as much as possible.

- Avoid reading slides.
- Develop slides that are more graphical in nature and avoid slides that have an inordinate amount of text.
- Project his or her voice in order for the audience to hear the presentation.
- Use good posture.
- Dress professionally for the colloquium.
- When signaled that time is up for the presentation, make his or her very next sentence one that will wrap up the presentation.
- Develop and present using Microsoft PowerPoint for an IBM compatible PC. In order to be certain about the School of Technology's ability to project the presentation, the student should make sure that the presentation is no larger than one megabyte of memory. The student may bring a floppy, a memory stick, a CD, or ZIP disc, but ONLY a floppy will be certain to work given the current technology available. In fact, the student would be well advised to bring the presentation file on more than one type of storage medium.
- Be responsible for contacting the professor of record to let him or her know whether or not the student will be prepared to make the colloquium presentation.

**The Associate Dean** for Graduate Studies for the School of Technology will:

- Secure the room, determine a date and time, , and provide a table, a projector screen, a computer projector, and a laptop in order to facilitate the colloquium. He or she will inform department chairpersons of the date, place, and time.
- Develop and print the program for the colloquium.

**The professors of record** for the Master's Project sections respectively are responsible for contacting:

- Their students and providing them with the date, time, location, and rules/guidelines of the colloquium.
- The Associate Dean for the School of Technology to state which students will, in fact, be ready to present and which students, in fact, will not be able to present. This should be done one week prior to the date of the colloquium.

**The department chairpersons** are responsible for providing the date, place, and time of the colloquium to the professors of record.

**The professor** who presides over the colloquium will:

- Introduce the presenters.
- Call the presenters to the podium in alphabetical order.
- Appoint a timekeeper.

Out of courtesy to other presenters, all concerned should be on time to the beginning of the colloquium. Avoid milling about and having conversations with others in the audience. Do not leave until the end of the colloquium. Ask questions that are inquisitive and not intended to detract from the presentation.

# MSTM Graduate Student Guide Book

## Acknowledgment

This is to certify that I, \_\_\_\_\_ have received a copy (electronic or hard copy) of the MSTM Graduate Student Guide Book, and that I have read and understood the contents thereof.

Student's Signature

Date

\_\_\_\_\_  
\_\_\_\_\_

Academic Advisor's Signature

Date

\_\_\_\_\_  
\_\_\_\_\_

***PS: This form must be signed in duplicate. Each party is to retain a copy for his/her record.***