Master of Arts in Information Technology – Capstone Project Handbook

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Olivet University International
Anza, California

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M.A. IT CAPSTONE PROJECT OVERVIEW

The capstone project is the final requirement of the Master of Arts in Information Technology degree offered by Olivet University International's Information Technology Division.

The Capstone Project is a major project that represents the culmination of the degree and is an opportunity for students to apply the knowledge they acquire through coursework to a project of their own interest. The goal of the Capstone is for students to synthesize, integrate, and apply the skills and competencies they have acquired, to a real-world IT problem of their choosing.

OVERVIEW

The Capstone is a two-quarter process. Students begin with 2 credit hours of ITCP600 Capstone Project I to propose and gain approval of your topic. In the following quarter, you must complete ITCP700 Capstone Project II to develop and defend your project and/or paper. In order for you to earn credit for ITCP700, the completed project and/or paper must be approved by your Capstone Project Committee after the defense.

If a project is not completed by the end of the quarter in which student registers for the credits, he/she will automatically receive an incomplete, 'I', grade. They have the standard two (2) quarters to complete the work and replace the incomplete grade with the actual capstone grade. After two quarters, the incomplete automatically becomes a grade of 'F'. If you find that you will be unable to complete your project within the two semesters, talk with your committee chair about an extension of the incomplete.

Capstone projects can be either research-oriented (thesis project) or design-oriented (applied project). A thesis project might involve either the testing of a new idea or a synthesis or analysis of existing ideas. An applied project might involve the production of a product, such as a complex software system.

Design-oriented (applied) projects

The project offers you the chance to work with a startup or an industry sponsor on innovation, improvement, or modification of new or existing information technology. The goal is for students to apply all the skills obtained from the program to a project that is reflective of an actual experience in a research/design/development setting. Examples of recent student projects include:

XMPP & VMware system designing and implementation for an organization.
Design and Development a Build Customer Relationship Management Ajax Web Application using GWT and db4o
The development and implementation of a android app.
The design and implementation of a Lightweight Social Network Platform Solution Based On Zend Framework
The design and implementation of Geographic-Based Information Management System of An University Campus

The Research-Oriented (thesis) Project

The thesis provides an opportunity to make a unique contribution to the body of knowledge in a subject area studied in the Master of Arts in Information Technology program. Working under the mentorship of a faculty supervisor, students select a topic; develop a research model; conduct research

and analysis; and write a significant thesis paper to be reviewed by experts in the field. Examples of recent student theses include:

> An Attempt at Introducing Machine Learning for Penetration Test Artificial Intelligence: Partially Observable Markov Decision Process (POMDP)
>
> Chi-Square with Max Entropy: a new method for Product Feature Extraction and Sentiment Analysis in Amazon Product Reviews
>
> A study of Web Applications Securities

CAPSTONE STUDENT OR TEAM

Capstone Project can be done by one M.A.IT student or a team. If it is a team, the maximum number of team members is FOUR (4), and maximum number team members from the M.A.IT program is TWO (2). This means the team can comprise of up to 2 M.A.IT students, and up to two students from another programs or school. Each team member should have a specific role and job description for the capstone project.

CAPSTONE PROJECT PROCESS

The student will:

> Enroll in the Master's Capstone Project I course. Students must have completed 24 credit hours in the program before enrolling this course.
>
> With the assistance of the IT division chair, identify a Capstone Project Advisor who is knowledgeable in the area(s) relevant to the suggested Capstone Proposal. The Capstone Project Advisor may be the IT division chair, but this is no required. This process should be initiated at least 7-10 months (2-3 quarters) prior to the expected date of program completion;
>
> Submit a signed copy of Capstone Contract and Checklist to the IT division chair. Keep the original for your records as a checklist of your progress and upcoming commitments (See Appendix D). This form should be updated and resubmitted at various milestones during your program as a checklist of your progress as noted on the form;
>
> Select a final developed project topic. The student should develop the topic in consultation and discussion with the Capstone Project Advisor;
>
> Review the relevant literature;
>
> Identify members of the Capstone Project Committee that will work with the student and the Capstone Project Advisor;
>
> Develop a formal proposal;
>
> Submit the written proposal and plan to the Capstone Project Committee explaining:
> - o The topic to be addressed;
> - o The aims of the project to be undertaken;
> - o The methodology to be utilized;
> - o The outcome anticipated by the student;
> - o The members of the Capstone Committee;
>
> Prepare and present an oral presentation of the Capstone Proposal to the Capstone Committee (This is Meeting #1: See below);
>
> Enroll in the Master's Capstone Project II course and Execute the Proposal;
>
> Meet with the Capstone Advisor and Capstone Committee as described below. These meetings should be documented on the Record of Committee Meetings form (See Appendix A) and noted on the Milestone Stage Contract and Checklist form (See Appendix C):

- o   - Meeting #1: Proposal presentation to Capstone Committee
- o   - Meeting #2: Interim progress report (more than one meeting may be required)
- o   - Meeting #3: Oral presentation to the Capstone Committee of the final results for approval (NOTE: This is not the formal public Capstone Project Thesis presentation and defense.)

Weekly regular meet with Capstone Project Advisor for progress report & guidance. These meetings be documented on the Record of Capstone Weekly Meeting & Report form (See Appendix F)

Submit first draft of the final project thesis to the Capstone Advisor for review and approval;

Submit a final draft of the final project thesis to the Capstone Committee for review and approval;

Implement revisions to the final research thesis as suggested by the Capstone Committee;
- o   - Upon approval by the Capstone Committee and the Capstone Advisor, the student should, schedule a formal public Capstone presentation. Three such opportunities are available during the year in March, June and November (NOTE: This is distinct from Meeting #3).

Present the Capstone Project Thesis and the results at a formal public forum;

Submit a final bound copy of the Capstone research thesis and the signature page, signed by the Capstone Committee to the IT division chair. This should be done on the day of the formal Capstone presentation and defense (See Appendix D).

Forms for use during the Capstone process are included in this document.

THE CAPSTONE PROJECT ADVISOR AND COMMITTEE

The Capstone Advisor is responsible for overseeing that the Capstone Project Thesis exhibits an appropriate level of scholarship. The Capstone Project Thesis must demonstrate a high degree of professional and methodological competence. The candidate's Capstone Committee can provide the student with the guidance and instruction necessary to achieve this competence. The Capstone Committee should meet regularly. At least three (3) meetings are required although the Committee may meet more frequently if necessary to evaluate progress during the student's period of project activity. Records of these meeting must be submitted to the Director's office. Meeting records should consist of the signed meeting form (Appendix D) and a brief (less than one page) summary of the meeting prepared by the student.

RESPONSIBILITIES OF THE CAPSTONE PROJECT ADVISOR

To assist in the development of the proposal for approval by the Committee.

To ascertain adequacy of the literature search.

To assist the student in project design including suggestions for necessary revisions.

To instruct, demonstrate, or make available to the student space or other resources as needed for the completion of the project to the extent possible.

To guide the student in application of methodology.

To provide guidance to the student in the preparation of illustrations, graphics presentations, etc.

While it is ultimately the responsibility of the student to be motivated and reach closure on their project and writing of the final thesis document, it is expected that the Capstone Advisor will exercise the supervision necessary for the student to complete the project. The student however has ultimate responsibility to make sure that all relevant forms are signed on time and that the Milestone Stage Contract and Checklist stays current; this includes both the student's original copy and the checklist copy in the student's files submitted to IT division chair.

To collaborate with members of the Capstone Committee in the final evaluation of the project.

PURPOSE OF THE CAPSTONE PROJECT COMMITTEE

The purpose of the Capstone Committee is to guide and advise the students in their projects. The Capstone Advisor must be aware of the specific expertise that the proposed Capstone Committee members will contribute toward the student's growth and development as well as the students Capstone Project activity. The proposed Committee composition should have the necessary expertise in the area of the Capstone Project.

MEMBERSHIP OF THE CAPSTONE COMMITTEE

A student should have three persons on their Capstone Committee including the Capstone Advisor. The Capstone Advisor may also be the student's IT division chair though this is not a requirement. The Capstone Advisor shall act as Chair of the Committee. The second committee member must be knowledgeable about the topic area, which will be the focus of the student project. The third committee member may be general reader who read your chapters as you complete them. However, regardless of the affiliations of the Committee, one member of the Committee must be of faculty rank at Olivet

University. All members of the Capstone Committee are expected to be fully engaged and active members of the committee.

The capstone project committee is student-chosen and based on faculty expertise. Students generally choose committee members after the thesis/project adviser is chosen but before the proposal is written. Your adviser, the committee chair, can be involved in selecting other committee members.

SUMMARY OF STEPS TO COMPLETE AND DOCUMENT THE CAPSTONE

The project will normally take two quarters and has two phases and 7-8 steps:

Phase 1: Capstone Project Proposal – ITCP600

The first phase has been designed to assist students in developing and creating a formal Capstone Project Proposal. Students must register course ITCP600 Capstone Project I (2 credits) before starting this phase.

Step 1: Identify a Capstone Topic and Seek Capstone Advisor

Students could consider capstone project topic as early as during first quarter. After complete 24 credit hours courses, students are allowed to start capstone project. Students will first seek a capstone project advisor who can supervise the student's field of practice and learning. Your faculty advisor, who may serve as your Capstone Advisor, is a good initial resource for discussing your areas of interest and for referring you to other faculty members whose expertise matches the type of project you wish to pursue. If students cannot find after the first week of the term, a supervisor will be assigned to him/her by the IT division chair.

Step 2: Identify the Capstone Project

Meet with your Capstone advisor to discuss your interest area/s, and the organizations you have identified as potential partners for your project. Describe the progress you have made contacting these groups and what further steps may be needed to arrive at a Capstone Proposal. Discuss an overall timeline for completing the various sections of your proposal and final project and paper.

Step 3: Write Capstone Project Proposal

Students should write a paper proposal with clear statements of project background, scope, deliverables, and resources (or references) with Capstone Advisor. The Capstone Advisor will review the student's Project Proposal and make recommendations before submitting for oral presentation.

Step 4: Oral Presentation & Approval of Final Proposal

Once you have completed the written proposal you should schedule with your thesis/project advisor an "oral defense" of your proposal. This proposal defense is intended to clarify the thesis/research proposed and gain agreement from the committee on the amount and quality of work expected.

The proposal must be approved and signed off by the chair of the thesis/capstone project committee and all other members with "CAPSTONE PROJECT PROPOSAL APPROVAL FORM" (see Appendix B)

Upon approval of the Capstone Project Proposal, students will submit the proposal through the MyOlivet ARP and a grade of "P" (for Passing) will be entered.

Phase 2: Conduct and Execute the Proposal

Students will develop and implement the capstone project, and writing a capstone project paper in this phase. Students must have passed ITCP600 Capstone Project I with an approved Capstone Project Proposal and register course ITCP700 Capstone Project II (6 credits) before starting this phase.

Step 5: Submit First Draft of the Final Project Thesis

An important item on your Capstone timeline will be the submission of the first draft of your Capstone paper for review by your Capstone advisor. The deadline for submitting the first draft to your Capstone advisor should be about three weeks before the final deadline for submission of the approved paper. This time allows for revisions to occur in preparation for the final draft submission. Communicating with your Capstone advisor about your progress is critical during this phase. This is the time to discuss any issues or concerns that you are encountering as you progress with your work.

Step 6: Submit Final Draft of Paper to Capstone Committee for Approval

The student should present the Committee members a neatly typed "draft" version of their project at least one (1) week prior to the final Committee meeting. Photographs, graphs, illustrations, and tables need not be the originals for this final draft copy of the project but the draft must have sufficient content to allow the Committee to determine if the student will be able to complete all the requirements prior to submission of an abstract for presentation.

Students need to incorporate suggestions from the Capstone Committee into their written paper for the final version of their Thesis. Students may have to present more than one draft of the paper to their Committee before final acceptance.

Only those students who have completed their Capstone Project Thesis and have had their rough draft approved by their Committee may apply to make the oral presentation.

Step 7: Formal presentation of Capstone Project Thesis

Upon approval by the Capstone Committee and the Capstone Advisor, the student should, schedule a formal public Capstone presentation. A public research seminar will be scheduled for the presentation of the Capstone Project Thesis by the candidate. This presentation is required for graduation.

Approximately 2-3 weeks prior to the scheduled presentation, the student must submit an abstract of his/her study. The abstract is to be submitted online using the instructions in the next section of this manual.

The candidate must demonstrate competence in his/her specific area of work. The Capstone Project is presented to the audience in an oral presentation with accompanying graphs, tables and other visuals. The candidate must display the ability to answer questions pertaining to the project for those in attendance. If however, there are proprietary information concerns involving the public presentation of the candidate's research, a closed seminar may be arranged.

After formal presentation, a grade for ITCP700 Capstone Project II will be gave by the Capstone Project Committee and enter into system.

Step 8: Capstone Project Continuation

If your project is not completed by the end of the quarter in which you register for the credits, you will automatically receive an incomplete, 'I', grade. You have the standard two (2) quarters to complete the work and replace the incomplete grade with the actual capstone grade. After two semesters, the incomplete automatically becomes a grade of 'F'. If you find that you will be unable to complete your project within the two semesters, talk with your committee chair about an extension of the incomplete.

KEY MILESTONES AND TIMELINE FOR CAPSTONE PROJECTS

Consider capstone project topic during your study as early as **the beginning of first quarter.**

Register for ITCP600 Capstone Project I after completing **24 credit hours**, normally it is the **4th quarter** of program study.

Identify your Capstone Advisor in the **first week** of beginning of ITCP600 Capstone Project I

Initial Capstone Project Milestone Checklist & Contract **after Capstone Advisor identified**.

Select Capstone Project Committee members **before submitting written capstone proposal**.

Submit draft proposal to Capstone Advisor:
- o If you registered 2-credit course (Capstone I), you must submit the draft proposal before the **8th week** of the term.
- o If you registered 8-credit courses (Capstone I & Capstone II), you must submit the draft proposal **within 14 days** of the beginning of the term of your capstone project.

Oral presentation of final proposal to Capstone Committee
- o If you registered 2-credit course (Capstone I), you must schedule the presentation before the **10th (last) week** of the term.
- o If you registered 8-credit courses (Capstone I & Capstone II), you must schedule the presentation **within 21 days** of the beginning of the term of your capstone project.

Submit final approved proposal to IT division chair **after proposal approved**.

Weekly meeting with Capstone Advisor

Mid-term Capstone Project Committee Meeting on 5th (or 6th if 6-credit courses registered) week of the term.

Submit first draft of the final project thesis to Capstone Advisor **three weeks** before the final deadline for submission of the approved paper.

Submit final draft of the final project thesis to Capstone Project Committee at least **one (1) week** prior to the final Committee meeting which hold on the **last week** of the term.

Last Capstone Project Committee Meeting on the **last week** of the term.

Schedule formal project presentation after Last Capstone Project Committee Meeting

Submit Abstract of study 2-3 weeks before formal presentation

Formal presentation in March, June or November

Submit a final bound copy of the Capstone research thesis and the signature page, signed by the Capstone Committee to the IT division chair. This should be done **on the day of the formal Capstone presentation and defense.**

Student should keep track of the progress and timeline with MILESTONE STAGE CONTRACT AND CHECKLIST (see Appendix D)

INDUSTRY SPONSORED PROJECTS

M.A. IT Capstone projects target real world problems or challenges of a sponsor organization. Projects can be sponsored by small start-ups, government agencies, social or educational institutions, corporations, NGOs, and/or advocacy groups. With a broad range of student interests and skills, projects can include:

Research/design/development software products from scratch that include all phases of software life cycle except maintenance (requirements gathering and analysis, requirements specification, design, implementation, testing and demonstration).
Re-engineer existing software products, possibly onto new platforms or may require to incorporate new technologies.
Work with on site supervisor for programming work.

Information for Sponsors

Interested sponsors are encouraged to contact the IT division chair for further information. To start with, a project sponsor must send a fairly detailed project description to the IT division chair. As a follow-up, the IT division chair will discuss the project with the sponsor and suggest modifications, if any. The IT division chair will then find a suitable student or team of students to complete the project and will continue the discussion with the sponsor and the student. At the end of the discussion, a initial capstone term with a Capstone Project Advisor and student(s) will be set up.

Then the student(s) continues to work on the project through the normal capstone project procedure starting from compiling the capstone project proposal with the supervision of the Capstone Project Advisor and the project sponsor. It is the project sponsor's responsibility to ensure that the student makes adequate progress that meets the requirements expected by the sponsor. The Capstone Advisor will check the academic performance of the student in doing the project. There will be a contract between the project sponsor and Olivet University that determines the owner of the product, intellectual property rights and financial commitments, if any, for the project. These are negotiable between the project sponsor and the University.

IP, Contracts and Gifts

Olivet University is a non-profit organization. Legally our students own the intellectual property they develop in the performance of the course. In order to participate in a sponsored project, students are required to sign a non-exclusive, royalty-free license. Any additional rights can be negotiated directly with the students at the completion of the project. If the company decides to give "a gift," they forfeit the right to the non-exclusive license.

It is possible that students may not develop any intellectual property during the course of the project, but we can say that all of our project teams have had a 100% completion rate in over 10 years of running this course.

Benefits to Sponsor Organizations

Sponsor organizations view Capstone projects as an exciting opportunity to:

     Solutions to real problems
     Close and exclusive interaction with student teams
     Partnership with the university in enhancing the educational experience of students

PROJECT PROPOSAL

The purpose of the proposal is to clearly and concisely answer the questions **WHAT, WHY**, and **HOW**. The proposal will be an outgrowth of the independent study, should explain the topic, the purpose or aims of the project, the plan for the project, and how the plan will be accomplished. It is expected that most proposals will be **seven to eight double-spaced** typed pages in length and should contain the following information:

1. Introduction or Definition of the Problem — This section should answer the **WHAT** and **WHY**. It should describe the specific aims of the project, what has already been done or is currently being done by others, the available information, and any deficiencies in this information.
2. Scope — a concise paragraph describing **HOW** the problem will be addressed.
3. Deliverables — A description of your plan to deliver in this project such as any software products or applications, project report, demo, presentation, etc.
4. Resources and References — a paragraph that describes any resources that are essential to your project and how you plan to obtain or gain access to them. List the references that are needed.

Format for the proposal can be found in **Appendix A**

Capstone project proposal should be reviewed be Capstone Project Advisor before oral presentation.

Once reviewed by Capstone Project Advisor you should schedule with your thesis/project advisor an "oral defense" of your proposal. This proposal defense is intended to clarify the thesis/research proposed and gain agreement from the committee on the amount and quality of work expected.

If you registered 2 credit course (Capstone I), you may schedule your proposal defense in the last two weeks of the term.

If you registered 6 credit courses (Capstone I & Capstone II), Your proposal defense must be within 21 days of the beginning of the term of your capstone project.

The proposal must be approved and signed off by the chair of the thesis/capstone project committee and all other members with "CAPSTONE PROJECT PROPOSAL APPROVAL FORM" (see **Appendix B**)

CAPSTONE PROJECT THESIS FORMAT

The final version of the Capstone Project Thesis should incorporate all necessary changes and corrections stipulated by the Capstone Committee. One bound copy of the Capstone Project Thesis containing original photographs and illustrations should be submitted to the IT division chair, on the day of the Capstone presentation. Various binding options are available at local commercial venues (FedEx or Creative Characters). Acceptable types of binding include Thermal tape binding, Coil binding and Comb binding.

A copy of the final Capstone Thesis should be given to each Capstone Committee member. All text pages including footnotes, legends, figures, tables and the bibliography should be typed double-spaced on one side of 8.5" by 11" bond paper. Margins should be at least 1" on all sides. Any legible standard typeface or font is acceptable as long as it is consistent throughout the document. Suggested type fonts and pitches are: Times New Roman 12; Tahoma 10; Arial 10; and Verdana 10.

The general format for thesis project

TITLE PAGE
Include title, student's name, date, program and institutional affiliation, the Capstone Advisor's name and a listing of all Capstone Committee members.

ACKNOWLEDGEMENTS
This page expresses appreciation for all those who assisted the student and mentions any permission obtained to quote copyrighted material.

ABSTRACT
The abstract should briefly describe: 1) the background and focus of project; 2) the methods utilized in the project; 3) a summary of the results of the project and; 4) conclusions. The abstract is limited to a maximum of 250 words. The abstract may also be used as the Capstone Project abstract for the oral presentation submission.

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LIST OF ILLUSTRATIONS OR FIGURES

LIST OF TABLES

BACKGROUND
The introduction should relate the background to the project, including a statement of the problem, and the aims of the project. The project should be presented so that it is related to an existing body of knowledge or work on the subject with a review of the relevant literature.

MATERIALS AND METHODS
This section is an expansion of the same section in the proposal. After reading this section, someone in the field should be clear enough about the methods, e.g., planning techniques, statistical approaches, etc., that they should be able to replicate the work if that is appropriate. Previously published procedures should be referenced in the bibliography.

RESULTS
This section is a presentation the collected data and analysis. Tables and Figures should be included as necessary.

DISCUSSION AND CONCLUSIONS
This section presents conclusions drawn from the data and additional analysis. The discussion should accurately reflect the project findings and also discuss unexpected results. Findings should be related to existing knowledge on the topic. Difficulties or barriers to implementation encountered in the project and recommendations for further study should also be included.

BIBLIOGRAPHY OR LIST OF REFERENCES
Every reference cited in the text must appear in the bibliography. Pertinent journal articles and reference texts should be cited using the format of a major scientific journal. If the project report will be submitted for publication in a journal use the format required by that journal.

The general format for applied project

TITLE PAGE
Include title, student's name, date, program and institutional affiliation, the Capstone Advisor's name and a listing of all Capstone Committee members.

ACKNOWLEDGEMENTS
This page expresses appreciation for all those who assisted the student and mentions any permission obtained to quote copyrighted material.

ABSTRACT
The abstract should briefly describe: 1) the background and focus of project; 2) the methods utilized in the project; 3) a summary of the results of the project and; 4) conclusions. The abstract is limited to a maximum of 250 words. The abstract may also be used as the Capstone Project abstract for the oral presentation submission.

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INTRODUCTION
The introduction should relate the background to the project, including a statement of the problem, and the aims/objectives of the project. The project should be presented so that it is related to an existing body of knowledge or work on the subject with a review of the relevant literature.

REQUIREMENTS AND ANALYSIS
This section is to describe project requirements and analysis

DESIGN & IMPLEMENTATION & TESTING

DISCUSSION AND CONCLUSIONS
This section presents conclusions drawn from the data and additional analysis. The discussion should accurately reflect the project findings and also discuss unexpected results. Findings should be related to existing knowledge on the topic. Difficulties or barriers to implementation encountered in the project and recommendations for further study should also be included.

BIBLIOGRAPHY OR LIST OF REFERENCES

Every reference cited in the text must appear in the bibliography. Pertinent journal articles and reference texts should be cited using the format of a major scientific journal. If the project report will be submitted for publication in a journal use the format required by that journal.

APPENDICES
This section includes all appendixes

CAPSTONE PROJECT EVALUATION

The final Capstone Project Thesis will be evaluated by the Capstone Committee. The Capstone Committee will write a final evaluation of your thesis. This evaluation will be at least a single page, constructive evaluation of your work on:

    Appropriateness of the project;

    Adequacy of the literature search;

    Organization and execution of the proposal plan;

    Project scope and level of difficulty;

    Validity of conclusions;

    Quality and thoroughness of the written paper.

    Weekly Meeting & Reports

The capstone requirement is successfully completed when all work, the defense, and the capstone document have been completed to the satisfaction of your capstone committee; it has been approved and signed off on by all of your capstone committee members; and the required copies of the capstone document have been appropriately bound and submitted and your department requirements.

After a capstone project is successfully completed, the members of the faculty committee award a letter grade of 'A', 'B', or 'C' based upon the student's demonstrated performance.

SUBMISSION OF WRITTEN PAPER AND ORAL PRESENTATION

A public research seminar is scheduled for the presentation of the Capstone Project Thesis by the candidate. This presentation is required for graduation and must be on the Olivet University campus. The candidate must demonstrate competence in his/her specific area of work. The Capstone Project is presented to the audience in an oral presentation with accompanying graphs, tables and other visuals. The candidate must display the ability to answer questions pertaining to the project for those in attendance. If however, there are proprietary information concerns involving the public presentation of the candidate's research, a closed seminar may be arranged.

Presentations are scheduled three times each year: March, June and November. Students who present in June and have completed all other requirements for graduation will be eligible to graduate in June of the same year. Students who present in November or March, for whom this is the last requirement to complete their program, will be invited to attend the graduation ceremony in the coming June. Students presenting in March or November may request a letter from the Registrar indicating the completion of all program requirements for their respective Master of Art in Information Technology degree.

> The student should present the Committee members a neatly typed "draft" version of their project at least one (1) week prior to the final Committee meeting. Photographs, graphs, illustrations, and tables need not be the originals for this final draft copy of the project but the draft must have sufficient content to allow the Committee to determine if the student will be able to complete all the requirements prior to submission of an abstract for presentation.
>
> Students need to incorporate suggestions from the Capstone Committee into their written paper for the final version of their Thesis. Students may have to present more than one draft of the paper to their Committee before final acceptance.
>
> Only those students who have completed their Capstone Project Thesis and have had their rough draft approved by their Committee may apply to make the oral presentation.
>
> The final Capstone Committee meeting must occur prior to the submission of the abstract for the final oral presentation.
>
> Approximately 2-3 weeks prior to the scheduled presentation, the student must submit an abstract of his/her study. The abstract is to be submitted online using the instructions in the next section of this manual.

APPENDIX A: Capstone Project Proposal

by
[your name]

Project Title
Write the name of your project.
(The title may be a provisional title, but it should be sufficient to orient the Capstone Advisor and Capstone Committee to the topic of the proposed project.)

Introduction or Definition of the Problem:
This section should answer the **WHAT** and **WHY**. It should describe the specific aims of the project. It should establish the rationale for the project by summarizing the previous work that has been done on the problem or topic, the available information, and any deficiencies in this information. It should also relate the significance of the proposed project.

Project Design and Scope:
This section should describe HOW the problem will be addressed. An individual reading the proposal should be able to determine whether the project plan will adequately accomplish the project aims. The members of the Capstone Committee should be able to determine from this section whether the project is feasible with respect to time, resources, and expertise. The specific steps should be described and the methods of analysis and/or evaluation should be clearly stated.

Deliverables:
This section should describe your final deliver in this project such as any software products or applications, project report, demo, presentation, etc.

Bibliography:
A bibliography based on the current literature should be included. Pertinent journal articles and reference texts should be cited using the format of a major scientific journal. Most proposals will have 10-30 references.

Appendix B: CAPSTONE PROJECT PROPOSAL APPROVAL FORM

The attached Capstone Project proposal has been submitted by:

_____
    Print your name in the space above

_____   _____

    Student Signature   Date

a student in the Master of Arts Program in:

_____

The following persons have agreed to serve as advisors and members of the Capstone Committee and have found that the student has sufficient knowledge in the field to proceed with the proposed project toward the completion of the Master's Capstone Project Thesis requirement.

SIGNATURES OF MS CAPSTONE THESIS COMMITTEE MEMBERS

_____
    Print name above

_____   _____

    Capstone Advisor's Signature   Date

_____
    Print name above

_____   _____

    Signature   Date

_____
    Print name above

_____   _____

    Signature   Date

_____
    Print name above

_____   _____

    IT Division Chair's Signature   Date

Appendix C: RECORD OF CAPSTONE COMMITTEE MEETING

Meeting # _____   Date _____

Principle Objectives Of the Meeting:

Meeting Summary: (attach another page if more space is needed)

SIGNATURES OF CAPSTONE COMMITTEE MEMBERS

_____
Student Signature

_____
Capstone Advisor's Signature

_____
Capstone Committee Member

_____
Capstone Committee Member

_____
Capstone Committee Member

_____   _____
IT Division Chair   Date

Appendix D: MILESTONE STAGE CONTRACT AND CHECKLIST

NAME: _____ M.A. PROGRAM _____

CAPSTONE ADVISOR: _____

MILESTONE STAGE CONTRACT AND CHECKLIST

CHECK OF	ACTIVITY	DATE	STUDENT INITIALS	ADVISOR INITIALS
	Identify Capstone Advisor			
	Initial Capstone Project Milestone Contract: 1 Copy for student + 1 copy for the files to IT division chair			
	Select members of the Capstone Committee			
	Submit written proposal for capstone project			
	Oral presentation of final proposal to Capstone Committee			
	Approval of final proposal: First official action of the Capstone Committee.			
	Submit final approved proposal to IT division chair			
	Capstone Committee Meetings:			
	Meeting #1			
	Meeting #2			
	Meeting #3			
	Prepare rough drafts of the written report for committee review			
	Make necessary revisions and get Final approval of paper			
	Check with IT division chair to insure all records are current and all course requirements have been fulfilled prior to handing in the project document			
	Schedule formal presentation of project (March, June, November)			
	Submit abstract to IT division chair: This is usually 30 days prior to the actual presentation date			
	Formal presentation of Capstone Project Thesis			
	Submit a final bound copy & PDF copy of the thesis along with signature page to IT division chair			

*SUBMIT A COPY OF THIS CONTRACT FOLLOWING EACH HIGHLIGHTED EVENT AND WITH THE FINAL COPY OF THE CAPSTONE PROJECT THESIS.

STUDENTS SHOULD KEEP THE ORIGINAL CHECKLIST AND DELIVER OR FAX UPDATES TO IT DIVISION CHAIR

Appendix E: Capstone Project Completion Signature Page

OLIVET INSTITUTE OF TECHNOLOGY

OLIVET UNIVERSITY

SIGNATURE PAGE

Student Name _____

A Candidate for the degree of

Master of Arts in

Degree Program: _____

Has successfully completed the final copy of the Capstone Project Thesis. We have found that the candidate has successfully completed the requirements for the Master of Art Capstone Project thereby demonstrating knowledge of the skills needed to contribute to the scientific advancement of his or her area of study.

_____
Capstone Advisor's Signature

_____
Capstone Committee Member

_____
Capstone Committee Member

_____
Capstone Committee Member

_____   _____
IT Division Chair   Date

Appendix F: RECORD OF CAPSTONE WEEKLY MEETING

Meeting # _____   Date _____

Principle Objectives Of the Meeting:

Meeting Summary: (attach another page if more space is needed)

SIGNATURES OF CAPSTONE COMMITTEE MEMBERS

_____
Student Signature

_____
Capstone Advisor's Signature

_____   _____
IT Division Chair   Date