Capstone Project Guidelines

For IT 415 / CAPSTONE41 and IT 420 / CAPSTONE42

UC-CICS

2012

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I.   Introduction

University of Cebu (formerly Cebu Central Colleges) pioneered the offering of a computing program – Bachelor of Science in Information and Computer Science (BSICS) in 1986. It was the first in Cebu and the entire Visayas/Mindanao following the US visit of the visionary leader Atty. Augusto W. Go. In 2001, the BSICS program was renamed BSIT following the Philippine Higher Education standards. Recently, Associate in Computer Technology (ACT) program with specialization in Animation is added as abudding program championed by the University Chancellor Ms. Candice Gotianuy. Both BSIT and ACT-Animation programs are under the ever-dynamically developing department – College of Information and Computer Studies.

College Objectives

Within the context of the UC-VMGO, the college offers relevant programs that aim to mold well rounded computing professionals by forging strong industry partnerships and maintaining a pool of competent and motivated faculty and staff.

The college is committed to foster a teaching-learning environment whose faculty and students can:

a) Develop computing solutions independently or in a team-oriented setting, based on internationally-recognized standards, for the promotion of moral, social, cultural, and environmental interests;
b) Adapt to the demands of the industry in terms of technical, personal, interpersonal, communications and leadership skills;
c) Uphold the standards of professionalism, corporate conduct and ethical values;
d) Conduct intellectual, technological and relevant researches in the computing field;
e) Avail of appropriate institutional services and resources that complement with academic programs; and
f) Contribute to community building through the responsible use of ICT resources andappropriate transfer of ICT skills.

The Bachelor of Science in Information Technology (BSIT) program prepares students to be IT professionals, be well versed on application installation, operation, development, maintenance and administration, and familiar with hardware installation, operation, and maintenance (CMO 53 s. 2006).

Program Educational Objectives (BSIT)

Upon completion of the Information Technology program, the graduates shall:

a) Possess knowledge and skills that prepare them to be computing professionals who are well versed on application installation, operation, development, maintenance and administration of IT systems;
b) Be able to apply/deploy/configure Information Systems, Software Methods and Technologies and Systems Infrastructure;
c) Beproficientindesigning and developingcomputingsolutions;
d) Manifest interpersonal, communications and leadership skills throughsignificant curricular, co-curricular and extra-curricular activities; and
e) Value social-consciousness through active participation in community- based endeavors and professional organizations.

Capstone Project is required for the BSIT program. It should be in the form of a systems application or an enterprise resource plan (CMO 53 s. 2006). The skills, methods and theories learned by the students in their stay in the BSIT program are applied in this output-oriented course.

This is a very special course in the BSIT program. Students do it in the final year of studies and it is their opportunity to demonstrate that they can indeed meet the levels of performance expected of an IT professional. The Capstone Project includes project proposal, feasibilitystudies, intellectual property, teamwork, budget, schedule, management, professional communications (i.e. reports, presentations), planning, design, implementation, deployment, and testing. Students will beexpected to do much more than "get something working". They will be expected to meet a number ofstrictly enforced milestones and to take considerable initiative in realizing specific goals. Moreover, theCapstone Project is a way of determining whether students are ready to graduate.

Capstone Project Educational Objectives

The Capstone Project has a number of educational objectives. Although each Research / Capstone Project is different and therelative emphasis will vary, the subject will involve students in:

- Bringing together and integrating knowledge and skills in the course as a whole;
- Reinforcing and developing competencies that have not been sufficiently emphasized in thefundamental subjects;
- Defining a substantial engineering study or design task and carrying it to completion within aspecified time and to a professional standard;
- Completing a comprehensive written and bound report that places the Research / Capstone Project in context, defines its objectives, and describes the work done with the resulting conclusions orrecommendations;
- Bridging the gap between the undergraduate studies and the professional future, anddemonstrating professional competencies and capabilities;
- Demonstrating initiative and creativity, taking pride in the achievement of a difficult task.

Through this course, students are prepared in their respective careers. The bulk of the work (i.e., the Research / Capstone Project work itself) is to be done outside of the classroom.

II.   Research / Capstone Project Agenda

The Research / Capstone Project agenda/thrust of thecollegeare the following, but not limited to:

- Business and Industry Development
- Business Studies
- Industry Studies or Ancillary Studies
- Spatial Studies
- Socioeconomic Development Component
- Poverty Studies
- Education Studies
- Good Governance Studies
- Poverty Alleviation and Reduction of Income Inequality
- Addressing Urban-Industrial Spatial Imbalances
- Promoting a Globally-Competitive Service Sector in Central Visayas

These are aligned with the Zonal Research Center (ZRC) established in the University of San Carlos (USC) through the Commission on Higher Education (CHED), which spans to member

institutions in Cebu and Bohol and aligned with the national research roadmap. It is expected that the students capstone projects / researches shall be in parallel with the already laid down priority areas of UC, ZRC and the Philippines at large.

III. IT Research by ACM

The academic discipline of Information Technology can well be characterized as the most integrative of the computing disciplines. One implication of this characteristic is that a graduate of an IT program should be the first one to take responsibility to resolve a computing need, no matter what source or description of the problem, and what solution that is eventually adopted. The depth of IT lies in its breadth: IT graduate needs to be broad enough to recognize any computing need and know something about possible solutions. The IT graduate would be the one to select, create or assist to create, apply, integrate, and administer the solution within the application context.

As a practice driven discipline, IT has been built on a rich base of existing research. Part of the role of IT is to apply research from the other computing disciplines. Part of the research contribution of IT will be to feed new questions and results back into the research streams on which IT is built. Research unique to IT will emerge from the practice of IT. IT research will address questions related to the content of practice, that is, questions about computing. IT research will also address questions related to the process of practice.

The ACM IT Research Agenda includes the following areas:

- **Integration** - Many applications of computing technologies require the integration of different system components (Ekstrom and Lunt, 2003). Viewing systems broadly and including people as components of systems raises a host of integration issues.
- **Trade-off analysis** – Development of IT solutions inherently requires trade-off among approaches, processes, components, etc. Principles and methods for conducting this analysis are needed for successful IT practice.
- **Interface issues** – Integration of system components often results in problems at the interfaces. This is true whether the interfaces involve hardware, or software, or the interface from hardware and software to people.
- **Security and assurance** – Security and information assurance have risen sharply in importance in recent years. Since protection is only as good as the weakest point in the system, security and assurance present particular challenges in IT, where the scope of concern passes the total system.
- **Implementation** - The introduction of an IT application in a user environment often changes that environment in subtle ways. Since many IT applications are designed for the user environment, as it currently exists, such changes may undermine the ability of the application to meet the needs of users. Being able to predict how IT application is likely to change the user environment would help ensure successful design.

The Integrative Capstone Experience

The concept of a capstone type of experience in the last part of the curriculum has gained wide support in academia, particularly in the engineering and engineering technology disciplines, and is gaining support in the computing disciplines. The three common elements of nearly all capstone programs are: 1) students are divided into teams of typically 4 to 8 students each; 2) each team is given a real world project or problem to solve; 3) this project takes many weeks to complete (typically 14 or more). There is much research to support the effectiveness of this experience (see Jones SA, Houghtalen R; Dutta D, et al; Butkus, M. A., and Kelley, M.B; Devon, R., et al.; Catalano, G.D.; and Bohmann, L.J., et al., among many others). Due to the highly integrative nature

of the experience, and the need for the students to have covered most of the IT curriculum prior to this experience, this material is best covered as close as possible to the end of the fourth year. (ACM: Information Technology 2008)

These courses typically form a one- to a two-semester sequence during the student's last year. Usually, students must work in teams to design and implement projects, where those projects must involve consideration of real-world issues including cost, safety, efficiency, and suitability for the intended user. The projects may be developed solely for the class, but may also involve other on- or off-campus clients. Although the emphasis of the course is on project work and student presentations, some material on intellectual property rights, copyrights, patents, law, and ethics may be included. (ACM: Information Technology 2008)

The ACM Format

This format may be used especially if the research / Research / Capstone Project being proposed are not about SoftwareDevelopment to be coordinated with the Adviser / Dean. (Please refer to Appendix J. ACM Format)

IV. Suggested Areas of Research / Capstone Project

Research / Capstone Project Categories

The Research / Capstone Project must be useful to any establishment of the same nature or scope. It must not exist or have been proposed by previous Proponents/Researchers. The Research / Capstone Project must not be developed using the off-the-shelf application programs. The proposed computerized system may fall in any of the following categories, but not limited to:

Software Development
- Software Customization (most especially FOSS)
  - Extensions
  - Plug-ins
- Expert Systems and Decision Support Systems / Intelligent Systems
- Systems Software (e.g. Utilities, Interpreters, Simulators, Compilers, Security-related Software)
- IS Development (with at least Alpha Testing with Live Servers
- Web Applications Development
- Mobile Computing Systems
- Computer Vision

Multimedia Systems
- Game Development
- E-learning Systems
- Interactive Systems
- Information Kiosks

Network Design and Implementation
- IT Management
- IT Strategic Plan
- IT Security Analysis, Planning and Implementation

V.   Pre-requisites

The student must finish the following courses that prepare him/her to undergo a formal capstone project/research study:

- **Res 1** (Methods of Research) - for research methodologies (e.g. descriptive research method)
- **IT 224/TechWrite22** (Technical Writing) - for formal articles/writing and presentation skills
- **IT 223/SAD22** (Systems Analysis and Design) - for Software Development steps or life cycle
- **Math 11/Math 21A** (Advanced Statistics / Probability and Statistics) - for statistical process/treatment
- **IT 323/Mgt1** (Technopreneurship) - for feasibility study and business planning
- **IT 410/SoftEng32** (Software Engineering) co-requisite of IT 415 / CAPSTONE41 - for software development paradigms
- **IT 320/AIS32** (Accounting Information Systems) – for business processes

VI.   Research / Capstone Project Team

The Capstone Projectteam is composed of at most five (**5**) members. The following are the roles that the proponents/researchers should play:

- **Project Manager (PM)** - The person with authority to manage a Research / Capstone Project. This includes leading the planning and the development of all Research / Capstone Project deliverables. The project manager is responsible for the budget, work plan and all Project Management Procedures (scope management, issues management, risk management, etc.). He is responsible for the success of the entire activity.
- **Systems Analyst / Database Designer (SA/DD)** – the person who checks that all parts of the system are coordinated. The person who makes sure that the database design is complete and robust. He coordinates well with the PM.
- **Network Designer / UI Designer (ND/UID)** – The person who masters the system's network design and prepares the User-Interface design (Forms/ Screen Shots/ Storyboard). He coordinates well with the SA/DD.
- **Software Engineer / Programmer (SE/P)** - The person who design, write, and test computer programs. He coordinates well with the ND/UID. May be 2 in a group of 6 members.
- **QA Tester/ Technical Writer (QA/TW)** - A person who ensures the quality of the software product and help find and eliminate any bugs. He determines the functionality of every aspect of a particular application. A person who finalizes the Research / Capstone Project study document, both the system and the Research / Capstone Project manuscript. He coordinates well with the SE/P.

Duties and Responsibilities of the Proponents/Researchers

1) Keep informed of the Capstone Project Guidelines and Policies.
2) Keep informed of the schedule of Research / Capstone Project activities, required deliverables and deadlines posted by Adviser and Dean.
3) Submit on time all deliverables specified in this document as well as those to be specified by the Adviser and Dean.

4) Submit on time all requirements identified by the Capstone ProjectOral Defense Panel during the Oral Defense.
5) Submit on time the requirements identified by the adviser throughout the duration of the Capstone Project.
6) Schedule regular meetings (at least once a month) with the Adviserthroughout the duration of the Capstone Project. The meetings serve as a venue for the proponent to report the progress of their work, as well as raise any issues or concerns.
7) Schedule regular meetings (at least once in a semester) with the Dean throughout the duration of the Capstone Project.

Policy on Regrouping

Regrouping is allowed if less than 3 members of the group remain from IT 415 / CAPSTONE41 to IT 420 / CAPSTONE42. Should this happen, the group may be disbanded and members of these affected groups may join in other groups for as long as the maximum number for each group is followed. However, if the remaining member(s) decide(s) to continue with his/their Research / Capstone Project, regrouping may not apply but with consent of the Adviser and the Dean. Revision of the scope may then be an option. The title/topic to be pursued will then be decided among the team members and the Dean.

VII.   Research / Capstone Project Adviser

The subject teacher is by default the adviser of all groups assigned to him or her.

Duties and Responsibilities as the Subject Teacher
1) Announce Research / Capstone Project areas (at the start of the each semester) to the students;
2) Conduct general meetings with the students to discuss the Capstone Project Guidelines, Policies and Deliverables, and to allow the students to raise and clarify issues;
3) Select aProposal Hearing and Oral Defense panel for each team;
4) Schedule Research / Capstone Project activities, such as the deadlines of deliverables and Proposal Hearing and Oral Defense sessions.
5) Post schedules, Proposal Hearing and Oral Defense guidelines, requirements guidelines, and other announcements;
6) Furnish every member of the Proposal Hearing and Oral Defense panel with all the necessary Capstone Project documents before the Proposal Hearing or Oral Defense;
7) File at least one copy of the Proposal Hearing and Oral Defense panel's evaluation (including revisions) and the Revised and Approved Deliverables at every stage of the Research / Capstone Project.
8) Submit collated grades of students under his/her section for that term.

Duties and Responsibilities as the Adviser
1) Ensures that the study proposed by the students conforms to the standard of the College and has immediate or potential impact on the research thrust of the university.
2) Guides the Research / Capstone Project students in the following tasks while in the proposal stage:
   a) Defining the research problems/objectives in clear specific terms
   b) Building a working bibliography for the research
   c) Identifying variables and formulating hypothesis, if any

     d) Determining research design, population to be studied, research environment, instruments to be used and the data collection procedures

3) Meets the team regularly (at least twice a month, NOTE: the team must seek proper appointment) to answer questions and help resolve impasses and conflicts.

4) Points out errors in the development work, in the analysis, or in the documentation. The adviser must remind the Proponents/Researchers to do their work properly.

5) Reviews thoroughly all deliverables at every stage of the Research / Capstone Project, to ensure that they meet the department's standards. The adviser may also require his/her Proponents/Researchers to submit progress reports regularly.

6) Recommends the Proponents/Researchers for Proposal Hearing and Oral Defense. The adviser should not sign the Proposal Hearing Notice and the Oral Defense Notice if he/she believes that the Proponents/Researchers are not yet ready for Proposal Hearing and Oral Defense, respectively. Thus, if the Proponents/Researchers fail in the Proposal Hearing or Oral Defense, it is partially the adviser's fault.

7) Clarifies points during the Proposal Hearing and Oral Defense.

8) Ensures that all required revisions are incorporated into the appropriate documents and/or software.

9) Keeps informed of the schedule of Research / Capstone Project activities, required deliverables and deadlines.

10) Recommends to theProposal Hearing and Oral Defense panel the nomination of his/her Research / Capstone Project for an award.

11) As a special adviser, he/she is responsible to be:
    a. A provider
    b. An encourager
    c. A dictator
    d. A pushy boss
    e. A connector
    f. An employment agency

VIII.   Panel Composition

The panel is composed of 1 Chairman, 2 members, and may include content experts and recorder as assigned if necessary. Their duties and responsibilities include the following, but not limited to:

Duties and Responsibilities of the Panel

Chairman

1) Brief the Proponents/Researchers about the Proposal Hearing orOral Defense program during the actual Proposal Hearing orOral Defense, respectively.

2) Issue the verdict. The verdict is a unanimous decision among the three members of the Capstone ProjectProposal Hearing orOral Defense panel. Once issued, it is final and irrevocable.

3) Nominate a Research / Capstone Project for the Outstanding Research / Capstone Project Award. Guidelines for the Outstanding Research / Capstone Project Award will be provided separately.

1) Validate the endorsement of the adviser. The panel serves as "Internal Auditors", putting some form of check and control on the kinds of Researches / Capstone Projects being approved by the College.
2) Evaluate the deliverables.
3) Recommend a verdict.
4) Listen and consider the request of the adviser and/or the Proponents/Researchers.
5) Nominate a Research / Capstone Project for the Outstanding Research / Capstone Project Award. Guidelines for the Outstanding Research / Capstone Project Award will be provided separately.

IX.   Research / Capstone ProjectDuration

The BSIT Capstone Project shall be completed within two semesters (IT 415 / CAPSTONE41 and IT 420 / CAPSTONE42) with the following phases:

Pre-proposal Stage
• Course Enrolment
• Capstone Project Orientation
• Short Listing of Possible Research / Capstone Projects
• Title Critiquing and **Patentability Check (Patent Searching) – via ITSO**
• Pre-Proposal Statement Preparation
• Pre-Proposal Hearing

Proposal Stage
• Practical Examination of the chosen Programming Language (by team) - optional
• Writing of Chapters I, II, III, and IV (planning and design only)
• Proposal Manuscript Submission
• Proposal Hearing
• Proposal Manuscript Revisions

Oral Defense Stage
• Analysis
• Design
• Development
• Testing
• Prototype Submission (3 Loops) 1st loop- 30 50, 2nd loop- 51 to 70, 3rd loop- 71 to 99%
• Oral Defense Manuscript Submission (3 Loops)
• Oral Defense Proper
• Oral Defense Manuscript Revisions

Patent Process (via ITSO – optional)
• Patent Drafting
• Patent Application (if possible)
• Technology Transfer

Public Presentation
(As recommended by the Philippine Society of IT Educators (PSITE) – ResearchCommittee)
• Public Presentation

- Public presentation is required. It should be a school-based presentationopen for public which may include the Poster category
- Other Options
  - Regional Student Congress
    - Presentations to Philippine Computing Science Congress of CSP, National Conference on IT Education of PSITE

X.   Grading System

Proposal Stage(IT 415 / CAPSTONE41)

The Final Grade of each proponent will comprise of the following:

Average grade of the Panel Members including the Chairman	60%
Adviser of the Research / Capstone Project / Group	30%
Co-Researcher (Peer Grading)	10%
TOTAL	100%

The rating of each proponent per panel member shall be based on the following rubric for objective evaluation purposes:

Capstone Project Proposal Manuscript (group/team grade) 40%	
Initial Pages • Table of contents is consistent • Acknowledgement is brief and formal • Abstract is brief but complete	2
Chapter 1 • Introduction is intact and provides clear overview of the entire Research / Capstone Project • Statement of the Problem/ Objects is SMART • Scope and Limitation of the Research / Capstone Project are clearly defined	10
Chapter 2 • Related literatures are recent and relevant • Anchor provides solid background of the Research / Capstone Project • Auxiliary theories are evident • Sources are appropriately cited and noted • Related studies are relevant and includes global and local scope	5
Chapter 3 • There should be comprehensive discussions on the technologies (hardware/software) involved in the Research / Capstone Project and its related Research / Capstone Projects in the past	5
Chapter 4 • Methodology strictly follows the SDLC (esp. for Software Development) • Methodology includes project management techniques appropriate for the chosen Research / Capstone Project. • Requirements Specification is more or less complete and answers the objectives • Design Tools used are relevant and appropriate which should be based on requirements • Development Plan is concrete and should be consistent with the Design • Testing techniques to be used should assess all aspects of the developed Research / Capstone Project • Implementation Plan should be aligned with the objectives	10

Final Pages • Findings and Conclusions are attuned with the objectives • Recommendations are feasible and practical • Terms in the glossary are defined operationally • Bibliography should be in MLA Format • Appendices are relevant and help support the principal content • Glossary should be arranged alphabetically and defined operationally	3
Manuscript Mechanics • Organization and Fluidity of ideas are apparent • Formatting and layout are consistent • All parts of the manuscript should be grammatically correct	5

Oral Examination (Individual grade) 20%	
Comprehensiveness of the Answer/Ideas	10
Contribution/Support to the Team	7
Delivery / Command of the English Language	3

The rating/evaluation of the subject/adviser for each of the Proponents/Researchers shall be based on the following:

Subject/Adviser's Grade 30%	
Deliverables	20
Attendance	5
Journal Entries / Attitude / Behavior	5

Verdicts

There will be three (3) possible verdicts after the Proposal Hearing. The verdict is a unanimous decision among the three members of the Capstone ProjectOral Defense panel. Once issued, it is final and irrevocable.

APPROVED. Minor revisions are necessary but they do not have to be presented in front of and checked by all panelists.35 – 40 (based on proposal manuscript score)
APPROVED WITH REVISIONS. Major revisions shall be incorporated in the final copy of the revised Project Proposal summary. These must be checked by the panelists.24 - 34
DISAPPROVED. The Proponents/Researchers failed to propose a researchable or scholarly Research / Capstone Project.Below 24

System Oral Defense (IT 420 / CAPSTONE42)

Capstone Project Output (Group Grade)	60%
Oral Examination (Individual Grade) same rubric with proposal	20%
Skills Test	20%
TOTAL	**100%**

Capstone Project Output (Group Grade) 60%	
The output should be consistent with the objectives as defined during the proposal stage	25
All major modules and features of the system's output as defined after the proposal stage are delivered. The credit shall be based on the percentage of delivered items.	25
Group Debugging • The team shall display competence in resolving planted bugs.	10

ACCEPTED WITH REVISIONS. Revisions are necessary but they do not have to be presented in front and checked by all panelists.56 to 80 (based on lowest score in the groupand excluding Skills Test score)
REORAL DEFENSE. Another Oral Defense session, in which all panelists must be present, is necessary tofurther clarify the objectives and scope of the capstone project. Student must re-apply foranother Hearing Notice Form from the Center for Research if the Oral Defense is scheduled after thesemester ends.52 to 55 and upon the panel's unanimous decision
NOT ACCEPTED. The proponent failed to achieve the objectives of the research established in the proposal. The panelists' numeric grades are not anymore needed. Below 52

XI. Guidelines

IT 415 / CAPSTONE41

1) The students shall form a team of 5 members. They then decide who plays the pertinent roles. The team then submits **Project Team Assignments Form** (*Deliverable D1- Please refer   to*

Appendix A. Project Team Assignments Form*)* with signatures, to the Subject Teachers or the Dean's Office.

2) The Proponents/Researchers of the Research / Capstone Project shall prepare 10 different possible topics/titles, and present/consult these topics to any of the CICS teachers or any expert of the field. The Team shall ensure the novelty or patentability of the Research / Capstone Project through the help of the UC-ITSOfacility or using patent libraries online. The project manager would then select 3 - 5 out of the 10 possible titles.

3) The Proponents/Researchers shall make the **Pre-Proposal Statements** (*Deliverable D2- Please refer to* Appendix B. Pre-Proposal Statement Template) of each of the selected topics/titles.

4) The Pre-Proposal Hearing will be scheduled upon the completion of the Pre-Proposal Statements. During this hearing, the team members, subject teachers and the Dean shall convene and select only one of the 3 - 5 topics/titles presented. Only the approved Research / Capstone Project topics should proceed to the research proposal stage. After a topic/title is finally chosen, the team then accomplishes (in triplicate) a **Project Working Title Form** (*Deliverable D3 - refer to* Appendix C. Project Working Title Form) which will then indicate the name of the appropriate adviser as decided by the team of advisers together with the proponents.

5) The team shall prepare all the parts of the proposal manuscript on time with the set/agreed dates. The team always seeks approval from the adviser all the required deliverables, by letting him sign/conform with the submitted documents. By conforming, it means that the deliverable had been checked /corrected diligently.

Please refer to following document formatting standards:
- a. Paper
  - i. Size: 8.5 x 11
  - ii. Orientation: Portrait (except for special diagrams)
  - iii. Substance: 20 (for copy/ies to be bounded)
- b. Spacing: 1.5 inches
- c. Indentation: 1 inch
- d. Margins:
  - i. Top: 1 inch
  - ii. Left: 1.5 inches
  - iii. Bottom: 1 inch
  - iv. Right: 1 inch
  - v. Gutter: 0
  - vi. Header: 0.5
  - vii. Footer: 0.5
- e. Font
  - i. Sizes
    1. Heading 1: 12
    2. Heading 2: 12
    3. Heading 3 and Content: 11
  - ii. Type: strictly Times New Roman
  - iii. Color: Black (Automatic)
- f. Pagination
  - i. TopRight (no extra characters)

ii. No page shown on first page of every chapter
g. Page Breaks
i. Page break is only used when starting a new chapter
h. Sample Layout for Tables

<div align="center">Table <number [1 … n]>
TABLE TITLE</div>

i. Sample Layout for Figures

<div align="center">Figure <number [1 … n]>: **<u>Figure Title <bold, underlined></u>**</div>

6) The researchers will ensure that the proposal is refined. Please refer to the Research / Capstone Project Study Manuscript Outline in Appendix D.Research / Capstone ProjectManuscript Outline.

7) The researchers will prepare 4 copies of the **Complete Proposal Manuscript** (*Deliverable D4*) for the Proposal Hearing. The **Proposal Hearing Notice Form** (*Deliverable D5 - refer to*

Appendix E. Research / Capstone ProjectHearing Notice Form) from the Dean's Office should be filled out and complied. This notice and the 4 copies of complete proposal manuscript must be submitted to the Adviser. Use Times New Roman, font size 12, 1.5 line spacing. Use standard 8.5" x 11" white bond paper and all margins must be 1 inch.

8) The Adviser forwards the Proposal Hearing Notice and the Complete Proposal Manuscripts to the Dean's Office

9) The Office will then arrange the date and time of the proposal hearing and distributethe manuscripts to the identified members of the proposal hearing panel.

       The Dean assigns qualified and competent faculty members who will constitute the proposal-hearing panel. The proposal-hearing panel shall be composed of the following:

- 1 Chairman - preferably the Dean or a faculty with at least a master's degree.
- 2 Members (one may be a content expert)

10) At the end of the proposal hearing, the chair makes a synthesis and announces the panel's verdict.

11) The chairman and the adviser shall ensure that all recommendations for improvement by the proposal-hearing panel are incorporated in the Proposal Manuscript. This may include grammar, accuracy of language, adequacy of data, interpretation of results, etc.

12) The team shall prepare and provide for the honoraria of the panel of examiners through the college secretary immediately after the proceedings.

13) The proposal is revised based on the recommendation of the panel members during the proposal hearing.

14) The adviser shall guide the student researchers throughout the conduct of the approved project proposal. The adviser is responsible for monitoring the students and ensuring that the approved project design and methodology are followed; appropriate data are gathered, analyzed and interpreted.

15) One copy of the **Revised ProposalManuscript** (*Deliverable D6*) together with the **Grammarians Certificate** (*Deliverable D7 – refer to* Appendix F. Grammarian's Certificate Template) shall be routed to the Adviser, Panel members, and Chairman for the confirmation of revisions. **Approval Sheet** (*Deliverable D8 - refer to*

Appendix G. Approval Sheet) may be routed too for their signatures if already amenable.
16) The *hardbound* copy containing the Approval Sheet and the **Final Proposal Manuscript** (*Deliverable D9*) with the Proposal CD (*Deliverable D10 – refer to* Appendix L. CD Labeling Format) in a CD Jacket at the inlet portion of the back cover should be submitted to the Dean's Office. The color of the hardbound is black with gold/yellow text. The Proposal CD shall contain the following:
   a. Final Proposal Manuscript (word copy) – filename: Research / Capstone Project Alias
   b. Final Proposal Manuscript (puff copy) – filename: Research / Capstone Project Alias
   c. Other pertinent files

IT 420 / CAPSTONE42

1) The team shall submit to their adviser on time (as scheduled) the **1st prototype (30% to 50%) plus 1st draft** (*Deliverable D11*); **2nd prototype (51% to 70%) plus 2nd draft** (*Deliverable D12*); and **3rd prototype (71% to 99%) plus 3rd draft** (*Deliverable D13*) of the System/Output plus Oral Defense Manuscript, respectively. For monitoring purposes, the team shall secure the **Consultation Logs Form** (*Deliverable DX – refer to* Appendix K. Consultation Logs Form (Sample)).
2) If the 3rd prototype of the System/Output reaches the appropriate percentage to completion as against major modules and features and the 3rd draft of the Oral Defense Manuscriptis acceptable as evaluated and signed by the adviser through Deliverable DX, team shall then prepare and submit to the Adviser the **Oral Defense Hearing Notice** (*Deliverable D14*), 5 copies of the **ACM-Formatted Manuscript** (*Deliverable D15 - refer to* Appendix J. ACM Format) and 1 copy of the **CompleteOral Defense Manuscript** (*Deliverable D16*) ready for Oral Defense.
3) The researchers will ensure that the CompleteOral Defense Manuscript is refined which will be basis for the final ACM-Formatted Manuscript. Please refer to the Complete Oral Defense Manuscript Outline in Appendix D.Research / Capstone ProjectManuscript Outline.
4) The Adviser forwards the Oral Defense Hearing Notice, 5 copies of the ACM-formatted Manuscript and 1 copy of the Complete Oral Defense Manuscript to the Dean's Office.
5) The Office will then arrange the date and time of the oral defense and distribute the ACM-formatted Manuscripts to the identified members of the oral defense panel.
   The Dean assigns qualified and competent faculty members who will constitute the Oral Defensepanel. The Oral Defense panel shall be composed of the following:
   - 1 Chairman - preferably the Dean or at a faculty with least master's degree.
   - 2 Members (one may be a content expert)
6) One of the members of the Oral Defense panel may be invited from outside the University if the study requires his/her expertise.
7) During the Oral Defense, the adviser shall be the moderator who clarifies and mediates over issues raised.
8) The college secretary or a designated recorder is tasked to record all the suggestions and recommendations of the panel during the Oral Defense.
9) At the end of the Oral Defense, the chair makes a synthesis and announces the verdict.
10) The Oral Defense panel chair and the adviser shall ensure that all recommendations for improvement by the Oral Defense panel are incorporated in the final copies. This may include grammar, accuracy of language, adequacy of data, interpretation of results, etc.
11) The team shall prepare and provide for the honoraria of the panel of examiners through the college secretary immediately after the proceedings.

12) Approval Sheet (*Deliverable D17*), this time for the IT 420 / CAPSTONE42, is necessary prior to the final submission of the manuscript and other research transcripts.
13) The researchers must submit the **2** copies of **Oral DefenseCD's** (*Deliverable D18 – refer to* Appendix L. CD Labeling Format). Each of theOral DefenseCD's should contain the following:
- Complete documentation
    i. Final Oral Defense Manuscript (word file)
    ii. Final Oral Defense Manuscript (puff file)
    iii. Final ACM-Formatted Manuscript (word file)
    iv. Final ACM-Formatted Manuscript (word file)
- Developed system.
    i. Installation or Setup Files/Folders
    ii. Installationand/or Users' Guide

XII. List of Deliverables/Activities

	Deliverable	Due Date
D1	**Project Team Assignments Form (**Appendix A**)**	
D2	**Pre-Proposal Statements (3 – 5) (**Appendix B**)**	
D3	**Project Working Title Form (**Appendix C**)**	
D4	**Complete Proposal Manuscript (**Appendix D**)**	
D5	**Proposal Hearing Notice Form (**Appendix E**)**	
D6	**Revised Proposal Manuscript**	
D7	**Grammarians Certificate (**Appendix F**)**	
D8	**Approval Sheet (IT 415 / CAPSTONE41) (**Appendix G**)**	
D9	**Final Proposal Manuscript (Hardbound)**	
D10	**Proposal CD (**Appendix L**)**	
DX	**Consultation Logs Form (**Appendix K**)**	
D11	**1st prototype (30% to 50%) plus 1st draft**	
D12	**2nd prototype (51% to 70%) plus 2nd draft**	
D13	**3rd prototype (71% to 99%) plus 3rd draft**	
D14	**Oral Defense Hearing Notice (**Appendix E**)**	
D15	**ACM-Formatted Manuscript (**Appendix J**)**	
D16	**Complete Oral Defense Manuscript (**Appendix D**)**	
D17	**Approval Sheet (IT 420 / CAPSTONE42)**	
D18	**2Oral Defense CD's (**Appendix L**)**	
D19	**Individual Journals**	
	• Manual for Writers of Term Papers, Theses, and Dissertations, 6th edition by Kate L. Turabian (1 copy per team)	
	• 1 Long Brown Envelope (per team)	

Appendix A. Project Team Assignments Form

***Accomplish in 3 copies

Team Alias	

Name and Signature	Project Role	Email address/mobile#	EDP Code / Subject Teacher

Appendix B. Pre-Proposal Statement Template

NOTE: 1 for each of the 3 to 5 titles chosen by the adviser (strictly word-processed and comprehensive)

Project Title:	
Proponents/Researchers:	1. 2. 3. 4. 5.
Scope of the Study:	
Limitations of the Study:	
Project Design/Development Plan:	• Program Specification • Software Specification • Hardware Specification

Appendix C. Project Working Title Form

Proponents/Researchers:

1)
2)
3)
4)
5)
6)

Proposed Project Title:

Submitted by:	**Noted:**
_____ (Signature of Project Manager over printed name) Date: _____	_____ (Signature of Adviser over printed name) Date: _____
Recommending Approval:	**Approved:**
_____ (Signature of Patent Searcher over printed name) Date: _____	_____ (Signature of the Dean over printed name) Date: _____

***Accomplish in 3 copies

Appendix D.Research / Capstone ProjectManuscript Outline

- **Title Page** (different for IT 415 / CAPSTONE41 and IT 420 / CAPSTONE42)
- **Approval Sheet** (different for IT 415 / CAPSTONE41 and IT 420 / CAPSTONE42)
- **Dedication** (free form)
- **Acknowledgement**
- **Executive Summary** or **Abstract**
- **Table of Contents** (strictlyuse MS Word Table of Contents feature)
- **List of Figures**
- **List of Tables**
- **List of Notations** (optional)
- **Chapter I – Introduction** (consistent for both IT415 and IT 420 / CAPSTONE42)
  - [Introduction Proper]
    - Project Context
    - Purpose and Description of the Project
  - Objectives of the Project
  - Scope and Limitations of the Project
  - Significance of the Project
- **Chapter II – Review of Related Literature** (consistent for both IT415 and IT 420 / CAPSTONE42)
  - Theoretical Background
  - Related Literature
  - Related Studies
- **Chapter III – Technical Background** (consistent for both IT415 and IT 420 / CAPSTONE42)
  - Technicality of the project
  - Details of the technologies to be used
  - How the project will work
- **Chapter IV – Methodology** (initial for IT 415 / CAPSTONE41 and final for IT 420 / CAPSTONE42; choose only the parts that are applicable)
  - Environment (only for org-specific capstone project)
    - Locale
    - Population of the Study
    - Organizational Chart/Profile
  - Requirements Specifications
    - Operational Feasibility
      - Fishbone Diagram
      - Functional Decomposition Diagram
    - Technical Feasibility
      - Compatibility checking (hardware / software and other technologies)
      - Relevance of the technologies
    - Schedule Feasibility

- - - Gantt Chart
  - ▪ Economic Feasibility
    - • Cost and Benefit Analysis
    - • Cost Recovery Scheme
  - ▪ Requirements Modeling
    - • Input
    - • Process
    - • Output
    - • Performance
    - • Control
    - • Either of the following two (2) or combined, whichever are applicable:
      - ○ Data and Process Modeling
        - ▪ Context Diagram
        - ▪ Data Flow Diagram
        - ▪ System Flowchart
        - ▪ Program Flowchart (highlights only)
      - ○ Object Modeling
        - ▪ Use Case Diagram
        - ▪ Class Diagram
        - ▪ Sequence Diagram
        - ▪ Activity Diagram
  - ▪ Risk Assessment/Analysis
- ○ Design
  - ▪ Output and User-Interface Design
    - • Forms
    - • Reports
  - ▪ Data Design
    - • Entity Relationship Diagram (preferably done in MS Accessfor presentation purposes [but MS Access is discouraged as DBMS])
    - • Data Dictionary
  - ▪ System Architecture
    - • Network Model
    - • Network Topology
    - • Security
- ○ Development
  - ▪ Software Specification
  - ▪ Hardware Specification
  - ▪ Program Specification
  - ▪ Programming Environment
    - • Front End
    - • Back End
  - ▪ Deployment Diagram

- - - Test Plan
      - Test data
    - Verification, Validation, Testing
      - Unit Testing
      - Integration Testing
        - Compatibility Testing
        - Performance Testing
        - Stress Testing
        - Load Testing
      - System Testing
      - Acceptance Testing (must be done after the Oral Defense)
- **Conclusions** (only in IT 420 / CAPSTONE42)
- **Recommendations** (only in IT 420 / CAPSTONE42)
- **Implementation Plan** (only in IT 420 / CAPSTONE42)
  - Project Implementation Checklist
  - Implementation Contingency
  - Infrastructure/Deployment
- **BIBLIOGRAPHY**
- **APPENDICES** (initial for IT 415 / CAPSTONE41 and final for IT 420 / CAPSTONE42)
  - Relevant Source Code
  - Evaluation Tool
  - Sample Input/Output/Reports
  - Users Guide
  - Other Relevant Documents
  - Accomplished Forms
    - D1, D2 (chosen title), D3, D5, D7, DX, D14, D15
  - Curriculum Vitae
- **GLOSSARY** (initial for IT 415 / CAPSTONE41 and final for IT 420 / CAPSTONE42)

Appendix E. Research / Capstone ProjectHearing Notice Form

***Accomplish in 3 copies

RESEARCH / CAPSTONE PROJECT HEARING NOTICE

Date filed: _____   [   ] PROPOSAL
Ref. Code: _____   [   ] ORAL DEFENSE
Date: _____   Time: _____   Venue: _____

COLLEGE/ INSTITUTE/ DEPARTMENT: _____
Research Title:

_____

_____

Proponent/s:

_____   _____   _____

_____   _____   _____

_____   _____   _____

CERTIFICATION

The undersigned members comprising the panel for oral examination hereby agree to the schedule of hearing for the above research. [Please **PRINT NAME** and **SIGN**]

_____   _____
RESEARCH ADVISER   **ITSO Office | Research Coordinator**

_____   _____
PANEL MEMBER 1   **PANEL MEMBER 2**

_____
PANEL CHAIR

NOTED BY: APPROVED:

Melvin M. Ninal, MSIT   _____
Dean, CICS   **Research Director**

Appendix F. Grammarian's Certificate Template

October 15, 2009

G R A M M A R I A N ' S   C E R T I F I C A T E

This is to certify that the undersigned has reviewed and went through all the pages of the proposed project study / research entitled "**TITLE TITLE TITLE TITLE TITLE**" as against the set of structural rules that govern the composition of *sentences*, *phrases*, and *words* in the English language.

Signed:

MR. GRAMMAR G. GRAMMAR
Grammarian

Conforme:

JUAN DELA CRUZ
Project Manager

Appendix G. Approval Sheet (Sample)

APPROVAL SHEET

The Research / Capstone Project Study entitled **COLLEGE OF INFORMATION AND COMPUTER STUDIES ONLINE INFORMATION SYSTEM** prepared and submitted by Juan Dela Cruz, Peter Reyes, Luke Santos, Jude Paras, and Paul Gomez has been examined and is recommended for approval and acceptance.

RECOMMENDED:

<div style="text-align:center">

<u>James P. Saturno, MSIT</u>	<u>Ana Delos Santos, MSCS</u>	<u>Jose Abad Santos, MSCS</u>
Adviser	ITSO Manager	Research Facilitator

</div>

==

APPROVED by the Committee on Oral Examination with a grade of PASSED on March 15, 2009.

_____

Chairman

_____   _____

Member   Member

==

ACCEPTED and APPROVED in partial fulfillment of the requirements in Bachelor of Science in Information Technology.

<u>Melvin M. Ninal, MSIT</u>

Dean, UC-CICS

Date: _____

Appendix H. Title Page (Proposal)

**COLLEGE OF INFORMATION AND COMPUTER
STUDIES ONLINE INFORMATION
SYSTEM**
(Must be inverted pyramid form, all caps)

A Proposal
presented to the Faculty of the
College of Information and Computer Studies,
University of Cebu

In Partial Fulfillment of the Requirements
for the degree Bachelor of Science in Information Technology

By
Juan Dela Cruz
Peter Reyes
Luke Santos
Jude Paras
Paul Gomez

Mr. James P. Saturno
Adviser

March 2011
(the batch month and year)

Appendix I. Title Page (Oral Defense)

**COLLEGE OF INFORMATION AND COMPUTER
STUDIES ONLINE INFORMATION
SYSTEM**
(Must be inverted pyramid form, all caps)

A Research / Capstone Project
presented to the Faculty of the
College of Information and Computer Studies,
University of Cebu

In Partial Fulfillment of the Requirements
for the degree Bachelor of Science in Information Technology

By
Juan Dela Cruz
Peter Reyes
Luke Santos
Jude Paras
Paul Gomez

Mr. James P. Saturno
Adviser

March, 2011
(the batch month and year)

ACM Word Template for SIG Site

1st Author	2nd Author	3rd Author
1st author's affiliation	2nd author's affiliation	3rd author's affiliation
1st line of address	1st line of address	1st line of address
2nd line of address	2nd line of address	2nd line of address
Telephone number, incl. country code	Telephone number, incl. country code	Telephone number, incl. country code
1st author's email address	2nd E-mail	3rd E-mail

ABSTRACT

In this paper, we describe the formatting guidelines for ACM SIG Proceedings.

Categories and Subject Descriptors

D.3.3 [**Programming Languages**]: Language Constructs and Features – *abstract data types, polymorphism, and control structures.* This is just an example, please use the correct category and subject descriptors for your submission. The ACM Computing Classification Scheme: http://www.acm.org/class/1998/

General Terms

Your general terms must be any of the following 16 designated terms: Algorithms, Management, Measurement, Documentation, Performance, Design, Economics, Reliability, Experimentation, Security, Human Factors, Standardization, Languages, Theory, Legal Aspects, and Verification.

Keywords

Keywords are your own designated keywords.

INTRODUCTION

The proceedings are the records of the conference. ACM hopes to give these conference by-products a single, high-quality appearance. To do this, we ask that authors follow some simple guidelines. In essence, we ask you to make your paper look exactly like this document. The easiest way to do this is

simply to download a template from [2], and replace the content with your own material.

PAGE SIZE

All material on each page should fit within a rectangle of 18 x 23.5 cm (7" x 9.25"), centered on the page, beginning 2.54 cm (1") from the top of the page and ending with 2.54 cm (1") from the bottom. The right and left margins should be 1.9 cm (.75"). The text should be in two 8.45 cm (3.33") columns with a .83 cm (.33") gutter.

TYPESET TEXT

Normal or Body Text

Please use a 9-point Times Roman font, or other Roman font with serifs, as close as possible in appearance to Times Roman in which these guidelines have been set. The goal is to have a 9-point text, as you see here. Please use sans serif or non-proportional fonts only for special purposes, such as distinguishing source code text. If Times Roman is not available, try the font named Computer Modern Roman. On a Macintosh, use the font named Times. Right margins should be justified, not ragged.

Title and Authors

The title (Helvetica 18-point bold), authors' names (Helvetica 12-point) and affiliations (Helvetica 10-point) run across the full width of the page – one column wide. We also recommend phone number (Helvetica 10-point) and e-mail address (Helvetica 12-point). See the top of this page for three addresses. If only one address is needed, center all address text. For two addresses, use two centered tabs, and so on. For more than three authors, you may have to improvise.[1]

First Page Copyright Notice

---

[1] If necessary, you may place some address information in a footnote or in a named section at the end of your paper.

Please leave 3.81 cm (1.5") of blank text box at the bottom of the left column of the first page for the copyright notice.

Subsequent Pages

For pages other than the first page, start at the top of the page, and continue in double-column format. The two columns on the last page should be as close to equal length as possible.

Table 1. Table captions should be placed above the table

Graphics	Top	In-between	Bottom
Tables	End	Last	First
Figures	Good	Similar	Very well

References and Citations

Footnotes should be Times New Roman 9-point, and justified to the full width of the column.

Use the "ACM Reference format" for references – that is, a numbered list at the end of the article, ordered alphabetically and formatted accordingly. See examples of some typical reference types, in the new "ACM Reference format", at the end of this document. Within this template, use the style named *references* for the text. Acceptable abbreviations, for journal names, can be found here: http://library.caltech.edu/reference/abbreviations/

The references are also in 9 pt., but that section (see Section 7) is ragged right. References should be published materials accessible to the public. Internal technical reports may be cited only if they are easily accessible (i.e. you can give the address to obtain the report within your citation) and may be obtained by any reader. Proprietary information may not be cited. Private communications should be acknowledged, not referenced (e.g., "[Robertson, personal communication]").

Page Numbering, Headers and Footers

Do not include headers, footers or page numbers in your submission. These will be added when the publications are assembled.

FIGURES/CAPTIONS

Place Tables/Figures/Images in text as close to the reference as possible (see Figure 1). It may extend across both columns to a maximum width of 17.78 cm (7").

Captions should be Times New Roman 9-point bold. They should be numbered (e.g., "Table 1" or "Figure 2"), please note that the word for Table and Figure are spelled out. Figure's captions should be centered beneath the image or picture, and Table captions should be centered above the table body.

SECTIONS

The heading of a section should be in Times New Roman 12-point bold in all-capitals flush left with an additional 6-points of white space above the section head. Sections and subsequent sub- sections should be numbered and flush left. For a section head and a subsection head together (such as Section 3 and subsection 3.1), use no additional space above the subsection head.

Subsections

The heading of subsections should be in Times New Roman 12-point bold with only the initial letters capitalized. (Note: For subsections and sub subsections, a word like *the* or *a* is not capitalized unless it is the first word of the header.)

Sub subsections

The heading for sub subsections should be in Times New Roman 11-point italic with initial letters capitalized and 6-points of white space above the sub subsection head.

Sub subsections

The heading for sub subsections should be in Times New Roman 11-point italic with initial letters capitalized.

Sub subsections

The heading for sub subsections should be in Times New Roman 11-point italic with initial letters capitalized.
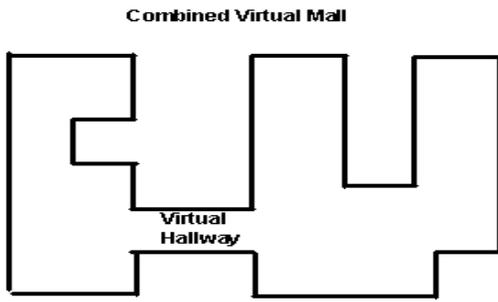
ACKNOWLEDGMENTS

Our thanks to ACM SIGCHI for allowing us to modify templates they had developed.

REFERENCES

[1] Bowman, M., Debray, S. K., and Peterson, L. L. 1993. Reasoning about naming systems. ACM Trans. Program. Lang. Syst. 15, 5 (Nov. 1993), 795-825. DOI= http://doi.acm.org/10.1145/161468.161471.

Combined Virtual Mall

Virtual Hallway

Figure 1. Insert caption to place caption below figure.

[2] Ding, W. and Marchionini, G. 1997 A Study on Video Browsing Strategies. Technical Report. University of Maryland at College Park.

[3] Fröhlich, B. and Plate, J. 2000. The cubic mouse: a new device for three-dimensional input. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (The Hague, The Netherlands, April 01 - 06, 2000). CHI '00. ACM Press, New York, NY, 526-531. DOI= http://doi.acm.org/10.1145/332040.332491

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[5] Sannella, M. J. 1994 Constraint Satisfaction and Debugging for Interactive User Interfaces. Doctoral Thesis. UMI Order Number: UMI Order No. GAX95-09398., University of Washington.

[6] Forman, G. 2003. An extensive empirical study of feature selection metrics for text classification. J. Mach. Learn. Res. 3 (Mar. 2003), 1289-1305.

[7] Brown, L. D., Hua, H., and Gao, C. 2003. A widget framework for augmented interaction in SCAPE. In Proceedings of the 16th Annual ACM Symposium on User interface Software and Technology (Vancouver, Canada, November 02 - 05, 2003). UIST '03. ACM Press, New York, NY, 1-10. DOI= http://doi.acm.org/10.1145/964696.964697

[8] Y.T. Yu, M.F. Lau, "A comparison of MC/DC, MUMCUT and several other coverage criteria for logical decisions", Journal of Systems and Software, 2005, in press.

[9] Spector, A. Z. 1989. Achieving application requirements. In Distributed Systems, S. Mullender, Ed. Acm Press Frontier Series. ACM Press, New York, NY, 19-33. DOI= http://doi.acm.org/10.1145/90417.90738

Columns on Last Page Should Be Made As Close As Possible to Equal Length

Appendix K. Consultation Logs Form (Sample)

University of Cebu

College of Information and Computer Studies

Capstone Project (IT 420) Consultation Logs Form

> Must attach with this form the FDD and the official list of modules/pages

Capstone Project Title: _____

Names of Proponents: _____

_____   _____

_____   _____

TOTAL # of Modules --> [_____] as noted and approved by the Dean: _____

Prototype	Date and Time of Consultation	# of Modules Fully Implemented (1pt each)	#of Modules Partially Implemented (0.5 pt each)	Running Score	Percentage	Project Manager's Signature	Adviser's Signature
1st Prototype should be within Dec. 12 - 17, 2011 30% - 50% of the modules/pages must be running							

Remarks: _____
_____
_____
_____
_____
_____
_____
_____

| **2nd Prototype** should be within Jan. 9 - 14, 2012 51% - 70% of the modules/pages must be running | | | | | | | |

Remarks: _____
_____
_____
_____
_____
_____
_____
_____

| **3rd Prototype** should be within Feb. 6 - 11, 2012 71% - 100% of the modules/pages must be running | | | | | | | |

Remarks: _____
_____
_____
_____
_____
_____
_____
_____

This is to certify that I have been regularly consulted by my advisees; have reviewed their system output as well as the required manuscript of the above-stated study. As their adviser, I therefore submit them ready for **Oral Defense** *as their third prototype is within the required percentage* . (scheduled on Feb. 27 to Mar. 3, 2011)

Signed: _____

NOTE: Skills Test will be on March 5, 2011

(Signature of Adviser over printed name)

Appendix L. CD Labeling Format

ATTENTION: ALL CAPSTONE PROJECT PROPONENTS/RESEARCHERS

CORRECT and REQUIRED WAY OF LABELLING
THE CAPSTONE CD/DVD

TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLE TITLETITLE TITLE TITLE TITLE TITLE TITLE TITLE

MONTH, YEAR [of Completion]

Researcher(s):   NAME 1
                 NAME 2
                 NAME 3
                 NAME 4
                 NAME 5
                 NAME 6

Adviser: ADVISER's NAME

BACKGROUND COLOR CODING:

	IT 415 CD/DVD Submission
	IT 420 CD/DVD Submission

IMPORTANT:
1. Use STICKER for the LABEL
2. SUBMIT with CLEAR CASING
3. Add numbering in CD label if more than 1 (e.g. 1 of 3, 2 of 3, 3 of 3)
4. CDs/DVDs that do not follow above format will not be accepted