

INTRODUCTION

Research is one of the major functions of Higher Education Institutions (HEIs). It is a show window of institutional competence. It complements and invigorates instruction and extension. Research produces and creates leading edge knowledge and provides dynamism and relevance to instruction program. Without the fruits of labor of the researchers, the extension agents will not have anything to disseminate to students and the wider community.

The Northwestern Visayan Colleges is consistently supportive in promoting our research system to higher level. Considering the dynamic nature of research and with the support of the Commission on Higher Education to HEIs in performing their research and instruction functions, the NVC always attune its research thrusts and agenda along with the trends of the National Higher Research Agenda (NHERA), Department of Science and Technology (DOST) and the Department of Environment and Natural Resources (DENR) to become more locally responsive and globally competitive.

The Northwestern Visayan Colleges Research Operations Manual is designed to provide the faculty, staff and students the direction in the research process from planning, organizing, implementing, monitoring, coordinating and in evaluating research and development. With this manual, the NVC could motivate number of researchers to initiate, implement and produce research outputs which eventually lead NVC in transforming into a University.

Research and Development Thrusts

In consonance with the recommendations of National Higher Education Research Agenda (NHERA), the research thrusts of Northwestern Visayan Colleges are the following:

1. Improving the research capability of Northwestern Visayan Colleges to become globally competitive.
2. Advancing faculty, staff and students in all colleges/departments by discipline.
3. Generating new knowledge/technologies through research.
4. Promoting and facilitating the dissemination and utilization of research outputs to enhance instruction and extension programs

Research and Development Policies

In terms of policy, the NVC requires all faculty members and staff to engage in research and development in the priority areas and in research capability building activities. Likewise, graduate students as well as undergraduate students from different colleges/departments are required the same as a requirement for graduation. The NVC shall support indigenous cultural studies, appropriate scientific and innovative discoveries and their application to promote socio-cultural and economic development of the nation. Therefore, this institution adheres to the following:

1. Faculty, staff and students are encouraged to conduct quality research in teacher education, music, arts, sports, health, sports, mathematics, business, economics, social sciences, humanities, languages and communication, sciences and natural resources, information/communication technology, criminology, industry, environment and in other disciplines.

2. Qualified faculty/staff who engaged in research are entitled to rewards and incentives in the amount determined or provided in the policies and guidelines approved by the Board of Directors.
3. Qualified faculty and staff are encouraged to establish collaborative researches with researchers from other Higher Education Institutions (HEIs), State Universities and Colleges, government or non-government organizations and industry relevant to their areas of specialization and the priorities of National Higher Education Research Agenda for research capability building in coordination with the Office of the President.
4. The Research Committee will be responsible for the conduct of a periodic review, evaluation and assessment of research initiatives and to make relevant reports and recommendations to the Board. The committee shall be reasonably remunerated.
5. All research proposals shall be subject to review by a panel of experts composed of faculty members of NVC and from outside who are experts in the field through the Office of Head for Research and recommend for its approval, revision or outright disapproval to the Office of the President.
6. Faculty and Staff who write a research proposal shall follow the prescribed research procedures. No research-related activities shall be allowed to begin unless approved by the President or his duly authorized representative.
7. Research proponents whose proposals are approved must, before the start of the project implementation, enter into a Memorandum of Agreement (MOA) with the President or his duly authorized representative. The MOA shall

stipulate the terms of reference, specific duties and responsibilities of the Institution and those of the project.

8. Every College/Department is encouraged to have at least 2-3 institutional research in a school year. Researches should be relevant with the research agenda of the school/college/department.
9. Student-researchers, both in the graduate and undergraduate programs should observe novelty of research problems. Researches that had been conducted within the last 5 years are discouraged, with few exemptions.
10. A list of qualified advisers, statisticians and language editors will be provided for the students to choose for their theses. They are open to all colleges/departments, either from external or internal campuses. Advisers for undergraduate theses must be at least Master's Degree holders and for graduate theses must be doctorate degree holders with research outputs/have attended recent seminars in research.
11. Teachers/Students who have completed researches should provide one copy each to the College concerned, Library, Research Office and CHED.
12. For quality assurance, all statistical data or undergraduate and graduate students' theses will be centrally processed in the SPSS software of the Research Office by them and/or by their Statistician. Six percent (6%) of the Statistician's fee paid by the students will go to Research Office that will be used to purchase a new version of SPSS in the future.

13. For quality assurance, all researches/theses will undergo ethics review by the Research Ethics Review Committee (RERC) with a fee of P200.00 per research/thesis for graduate student and P50.00 for undergraduate student.
14. Teachers/Non-Teaching Personnel who wish to present research paper in the national level must present their research output to the Research Committee for approval.
15. Teachers/Non-Teaching Personnel who wish to present research paper in the international level must present their research output to the Board of Directors (BOD) for approval.
16. The Examining Panel for title defense, pre-oral defense, and final defense will compose of three (3): the Dean of the concerned college/department, Research Head/Representative, and internal/external expert in the field. All panellists in the undergraduate theses must be at least **Master's Degree Holders** who have recent research outputs/published researches/attended research seminars and for the Graduate Program must be all **Doctorate degree holders**, have recent research outputs/published researches/attended recent research seminars.

Research Areas/Agenda

Based from the thrusts of the National Higher Education Research Agenda (NHERA), Department of Science and Technology, Department of Environment and Natural Resources, Northwestern Visayan Colleges (Akaeanon and Northern Panay Studies), the following research priority areas/agenda of the following Colleges/Department shall be considered:

1. Education and Teacher Training

- Akeanon/Northern Panay Studies
 - Origin of Akeanon language
 - Language variation of Akeanon dialects
 - Geographical indifference on language/dialects
 - Anthropology of Akeanon poetry
 - Pattern and Practices in education
 - Customs and Traditions
 - Folkdances and Rituals
 - Visayan Native Songs and Dances
 - Landmarks
 - Churches/Religious practices
 - Historical traces of churches
 - Festivity
 - Traditional games
 - Biography/History of political families of Aklan/Northern Panay
- Program/curricular studies on higher education
 - Assessment of present programs/curricula for purposes of determining how these could be improved/reengineered
- Policy oriented studies – research on various dimensions of policy formulation, implementation, monitoring and evaluation focusing on but not limited to the following:

2. Sciences, Natural Resources

- Multi-disciplinary researches on Akeanon/Northern Panay Studies:

- Farming practices (Indigenous strategy, modern strategy)
- Pollution control (integrated solid waste disposal technologies, agricultural pollution mitigation)
- Sanitary practices
- Health and wellness
- Herbal and medicinal practices
- handling of hazardous wastes
- remediation and rehabilitation technologies of contaminated sites
- waste to energy conversion technologies (agricultural waste management and utilization)
- climate change specifically on the issue of global warming (mitigation, adaptation, technology transfer, financial resources)
- approaches to the restoration of environmental ecosystems
- Disaster risk management (policy formulation, community development, public awareness)
- Others

3. Business Administration/HRM

- Akeanon/Northern Panay Studies
 - Economic History
 - Food and Beverages
 - Festivity
 - Livelihood
 - Tricycle (Forms and structures)

➤ Others

- Food safety and security
- Graduate tracer studies
- Policy oriented studies – research on various dimensions of policy formulation, implementation, monitoring and evaluation focusing on but not limited to the following:
 - ❖ financing of higher education; cost sharing in higher education
 - ❖ economics of higher education
 - ❖ governance and management of higher education
 - ❖ rationalization of higher education
 - ❖ access and equity measures
 - ❖ student financing models
- Manpower demand and supply studies
- Others

4. Humanities, Social Sciences, Languages and Communication

- Akeanon/Northern Panay Studies
 - Socio-Linguistics studies
 - Historical studies
 - Customs and traditions
 - Biography/History of political families of Aklan/Northern Panay
 - others
- Program/curricular studies in higher education
- Multi-disciplinary research on literature, arts, sociology, history, etc.

- Policy oriented studies – research on various dimensions of policy formulation, implementation, monitoring and evaluation of educational programs and other allied programs
5. Criminology
- Akeanon/Northern Panay Studies (Multi-disciplinary researches):
 - Disaster risk management
 - community development
 - public awareness
 - Pollution control
 - Peace process and conflict resolution
 - Policy-oriented researches
 - Policy formulation
 - Networking researches
 - Adaptation of education technologies, ICT

RESPONSIBILITIES AND EXPECTATIONS

To enhance the research capability of the NVC, the faculty members are expected to lead in the conduct of research in their disciplines. In support, the Commission on Higher Education (CHED) and the Department of Science and Technology (DOST) recommend research priorities and allocate funds for research grants, scholarships and for other research and development programs.

To ensure effective and efficient promotion of research, the Northwestern Visayan Colleges takes full responsibility to:

1. Encourage the faculty, staff and students to conduct disciplinary and/or multidisciplinary research projects;
2. Support research projects with necessary funds, equipment, materials and supplies and technical assistance;
3. Encourage collaborative researches with other higher institutions, government and non- government organizations and industry.
4. Provide a system of appropriate rewards and incentives;
5. Conduct periodic in-house reviews; and
6. Publish completed and reviewed researches in a refereed journal – institutional/local, regional, national or international.

Responsibilities of Researchers

The faculty and staff who serve as researchers over and above their regular teaching/work loads are expected to:

1. Be innovative and creative;
2. Work harmoniously with co-researchers in the conduct of collaborative and/or multidisciplinary researches;
3. Be sensitive and responsive to physical and social issues;
4. Observe the highest ethical standards in the conduct of research activities; and
5. Submit completed research on time.

KINDS OF RESEARCH PROJECTS

Internal Research Projects – These are research projects that deal with basic institutional issues, educational effectiveness and other problems of social concern for administration, faculty and students of the Colleges.

More specifically, institutional researches include; Evaluation of teaching methodologies, curricular programs/offerings, analysis of student’s achievements and their correlates, curriculum, follow-up studies for graduates’ employability, matching of curricular programs vis-à-vis industry needs and other studies considered by the Research Team as necessary and those studies commissioned by the office of the College.

External Research Projects – These are research grants made available to faculty members of the Northwestern Visayan Colleges covering residual projects requested by external agencies. These research grants shall be awarded by the President, through the recommendation of the Research Committee depending upon the eligibility set by the external agency. External researches may also be funded by the College.

The grant shall cover honorarium of services rendered by the grantee during the period of the study. The grantee may work on a full-time or part-time basis depending on the length of the research period.

If working on a full-time basis, the grantee may take a research leave for the duration of the project. The honorarium shall be paid by the external agency and shall not be lower than the salary the grantee is receiving.

In a collaborative research, only the research team leader will be awarded the research grant. He/shall assign other researchers, enumerators and staff who shall be entitled to honorarium.

**PROCEDURAL GUIDELINES IN THE FORMULATION OF
RESEARCH PROPOSAL FOR APPROVAL**

Call for Paper (Project Proposal)

At the start of the school year, the office of the Head for Research calls for research proposal. The faculty and staff are now expected to submit a detailed research proposal to the Office of the Head for Research. The research proposal must contain a) basic information, b) technical description, c) budget proposal, and d) work and financial plan.

Basic Information contains a) title of the proposed project, b) name and discipline of the proponent(s), duration of the project, and 3) total cost of the project.

Technical Description contains a detailed technical description of the research proposal. These are:

- 1) **Introduction.** (state what has prompted you to conduct the study)
- 2) **Review of Related Literature.** (Include some literature and studies related to the proposed study)
- 3) **Theoretical and Conceptual Framework.** (Present the theoretical and conceptual frameworks of the study both in visual and textual forms)
- 4) **Problems or Objectives.** (State the general and specific objectives of the proposed study)
- 5) **Significance of the Study.** (State why a study is important or significant)
- 6) **Methodology.** (Describe the research design, the data to gather and how to gather them. Discuss the appropriate statistical tools to be used in treating the data)

- 7) **Working Bibliography.** (Use parenthetical citation all throughout. List down all references under References.
- 8) **Work and Financial Plan.** (Outline in matrix form all activities to be undertaken, persons involved, time duration, the expected outputs, and the cost of the activities.
- 9) **GANNT Chart of activities.** (It is a guide for the researchers in the conduct of all related activities so that the project will be completed as planned.
- 10) **Appendix.** (include the instruments, other documents, profile of project proponents)

Format of Work and Financial Plan should be adapted:

Activity	Implementing Period	Objectives	Strategy	Persons Involved	Expected Output	Cost
1.						
2.						

Budget Proposal

A budget proposal must be presented in details. This includes the Personnel Services (PS), Maintenance and Operating Expenses (MOOE), Equipment Outlay (EO). All items of expenditure of the research project must be adequately justified such as honoraria, tokens and incentives for the researchers, administrative cost, support staff, office supplies, materials, food and travel expenses, small labor for production of questionnaires or interview schedules, materials and supplies. Equipment Outlay may be sourced from outside if research funds are limited.

Sample Format of Budget Proposal

Personnel Services	Amount	
	Unit	Total
1. Honoraria (Tokens and Incentives)		
2. Small Labor		
Maintenance and Operating Expenses		
1. Travel and transportation expenses		
2. Supplies (Office supplies, materials, food)		
3. Communication		
4. Computerization		
5. Administrative Cost		
Equipment Outlay (if there is any)		
Total		

Work and Financial Plan

The following should be the format:

Activity	Implementing Period	Objectives	Strategy	Persons Involved	Expected Output	Cost
1.						
2.						
3.						
4.						
5.						

NVC RESEARCH COMMITTEE

There shall be a Research Committee to assist the Research Office in the delivery of its services. The Committee shall be composed of:

1. The President - Chairman
2. The Research Head - Vice Chairman
3. The Vice President for Academic Affairs- Member
4. The Dean of the College/Department
(where the researcher belonged) - Member
5. Head for Extension Services - Member
6. The College Budget/Accountant Officer - Member

The chief function of this committee is to facilitate the review and evaluation of research proposals as well as the completed researches and recommend for approval to the President and/or Board.

Steps in Processing Research Proposals for Approval

1. The research proponent coordinates with the Research Coordinator of his/her College or Department in preparing the research proposal.
2. The Research Coordinator and the Dean of the College or Department endorse the research proposal to the Office of Head for Research.
3. The Head for Research convenes the Research Committee to review and evaluate the submitted research proposal focusing on content, methodology and budget.

4. The research proposal will further be evaluated by technical panel. This composed of faculty members of NVC and from outside who are experts in the field through In-House Review.
5. The technical panel shall consider the proposal on the following during the In-House Review:
 - 5.1 good rationale that contribute to the fund of knowledge
 - 5.2 relevance to the research thrusts or agenda of the institution/college
 - 5.3 its significance, objectives, implications (generate technology, new policy directions, etc.)
 - 5.4 scientific methodology, feasibility
 - 5.5 fulfil all other requirements normally expected of a good research proposal
6. All proposals that passed in the In-House Review shall be recommended to the President for approval.
7. The President returns the approved or disapproved proposal with comments for information to the Research Office
8. The Head for Research communicates to the proponent through proper channel, the final decision made on the proposal. When approved, the Research Committee through the Office of Head for Research informs the research proponent when to start implementing the proposal.

HONORARIA/INCENTIVES

Honorarium/Incentive is an honorary payment or reward given as compensation for service rendered by officials/employees on assignment to special projects (OCCP CPO No. 80-4, August 7, 1980, implementing LOI No. 565, dated June 30, 1977).

Applied to research and development operations, it is a form of remuneration for the service rendered beyond minimum or regular workload of a faculty or staff who has expertise in research and development. The Northwestern Visayan Colleges (NVC) recognizes that special expertise and extra effort must be properly rewarded to encourage productive and outstanding performance in research.

Research Honorarium/Incentive Schemes For Faculty Researchers

The following incentives shall be awarded to the faculty researcher with approved proposals:

Deloading

- The deloading of faculty researcher shall be dependent on the recommendations of the members of the Research Committee.
- The Research Committee shall recommend the number of units to be deloaded based on the relevance, significance and depth of the proposed study.

Recognition

Faculty research outputs shall be appropriately recognized and awarded after they have been presented in the In-House Review.

Assistance

The NVC Research Committee will assess the depth of the study and recommend the following schedule of assistance:

Deloading units	XXXXXX*
<ul style="list-style-type: none"> • descriptive research = one (1) load – equivalent to 3 units • experimental research = 2 loads equivalent to 6 units 	
Panel	4,000.00
Honorarium of Researcher (given if not deloaded, but the exact honorarium will depend on the depth of the research = at least P15,000)	XXXXXX*
Encoding/Printing/Photocopying (depends on the number of pages)	
Enumerators Php 20.00/respondents	XXXXXX*
Transportation	XXXXXX*
Supplies	2,500.00
Statistician	5,000.00
Language Editor(depends on the no.of pages)	5,000.00
Reproduction/Bookbinding (depending on no. of copies required)	5,000.00

*xxxxx – not fix

IMPLEMENTATION OF THE PROJECT

1. After signing the MOA, funds will be released to the proponent to start implementing the research proposal.
2. Teaching loads will be arranged according to the recommendation of the Dean and with the approval of the President. If the number of teaching loads removed is equivalent to the research load, the faculty member concerned is no longer entitled to any research honorarium.

Teaching and research load equivalency are given below:

- Descriptive research - one (1) load
- Experimental research - two (2) loads

3. Travelling and other incidental expenses shall be charged against the funds of the project.

4. Research Projects funded by outside organizations are governed by special laws and it is the responsibility of the research proponent to furnishing the funding agency with all required documents and a duplicate copy or photocopy must be filed in the Research Office.
5. Normally, payment of honoraria shall be performance-based and in accordance with the terms of reference stipulated in the approved research proposal. The incentives will be taken from the approved research budget.

MONITORING AND EVALUATION

The system of monitoring and evaluation of approved research and development projects consists of *ex ante* evaluation (before implementation) and *ex post* evaluation methods (after implementation). Monitoring (during implementation) involves the monitoring of project activities as they are being implemented. *Ex ante* starts with the review of research proposal prepared by the proponent.

The Office of Head for Research must conduct the mandatory monitoring and assessment of the research project. The implementing College or Department must submit to the Office of Head for Research the following reports:

- Quarterly Research Project Accomplishment Report
- Terminal Report for each completed project
- Year End Report summarizing all research and development activities during the year.

Field Evaluation And In-House Review

Evaluation can be conducted either in the field or through in-house review. In field evaluation head/representative visits the project sites to observe actual conduct of study or experiments, verify information contained in the reports, and to recommend alternative courses of action to improve implementation.

In-house review involves evaluation of on-going or completed projects. During the review, the progress or highlights of the projects are presented to the panel of evaluators. The major criteria used in evaluating research projects are:

- Attainment of objectives
- Adherence to approved methodology
- Adherence to approved budget
- Level of accomplishments
- Actions taken to previous comments and suggestion

Feedbacks on completed research projects should be given to identify the status of technologies generated or verified. A consolidated report of all monitoring and evaluation shall be submitted to the Office of the President for his information and guidance.

Evaluation Criteria

The following are the criteria in evaluating the status of any given research and development project:

Criteria	Weight
Research Category	
1. Significance of Findings (contribution to knowledge/ scientific advancement, 35%; relevance to NVC research thrusts/agenda, 25%)	60%
2. Methodology (adequacy and efficiency of research design, research procedure 15%; innovativeness, 10%)	25%
3. Presentation (clarity of style, 10%; cogency and logic, 5%)	15%
Total	100%
A. Development Category	
1. Significance of Findings (contribution to national development, 20%; contribution to productivity and cost effectiveness, 20%; acceptability of technology to end users, 20%)	60%
2. Methodology (adequacy and efficiency of design, 15%; innovativeness, 10%)	25%
3. Presentation (clarity of style, 10%; cogency and logic, 5%)	15%
Total	100%

Financial Monitoring

Below is an example how a PhP150,000 project fund is being monitored within the implementation period. The duration of the project is one year.

Releases		Required Financial Report	
Quarter	150,000		
Q1	50,000		
Q2	25,000	Q1	50,000
Q3	50,000	Q2	25,000
Q4	25,000	Q3-Q4	75,000
Total	150,000		150,000

Report Format

Below is the format of terminal report of completed research. It includes the following parts:

A. Basic Information	
1. Research Project	
• Project Title	
2. Researchers (Research Team Leader, Research Team Members)	
3. Implementing Unit	
• Department	
• Colleges	
4. Project Duration	
• Date Started	
• Date Completed	
5. Financial Report	

<i>Continued . . . Basic Information</i>	
• Total Approved Budget	
• Actual Releases	
• Actual Expenditures	
B. Technical Report	Separate Sheet
• Title	
• Abstract	
1. Background of the Study	
2. Review of Related Literature	
3. Statement of the Problem	
4. Methodology	
5. Discussion of Results	
6. Conclusions	
7. Recommendation	
8. References	

PUBLICATION AND DISSEMINATION

All completed researches may be considered for publication in the NVC Research Journal. The Research Journal has the following requirements:

Submission of Manuscripts – both hard and electronic copies must be submitted on time to the Editor and acknowledge receipt will be given to the author. Action therein will be notified later.

Format and Content. The manuscript must follow the following format: title of the research, authors, abstract of the paper, key words, brief introduction, statement of the problem and hypotheses, review of related literature, research methodologies, definition of terms, a comprehensive discussion of results, conclusions recommendations and references.

Style. Authors of the research paper should use the following as guides:

1. Manuscript should be submitted in soft copy and three hard copies, computerized using font size 12, Times New Roman, single space

on 8.5" x 11 bond paper. Margin should be 1.4 left, 1", top, bottom and 1.2 right.

2. Tables, graphs, photographs and illustrations must have appropriate captions.

Presentation of the paper in In-House Review – All papers submitted for publication in the NVC Research Journal must be presented first to a panel of experts in the In-House Review. The panel of expert reviewers may suggest additional inputs for the improvement of the paper. In the same manner, only papers with a unanimous approval of the panel of experts will be considered for publication.

GUIDELINES ON STUDENT RESEARCHES

The following are standard guidelines for undergraduate and graduate student researchers:

1. A title defense is scheduled to set the direction of the student researcher in preparation for the pre-oral defense.
2. The pre-oral defense will determine whether or not the proposed research will merit approval of the panel.
3. Students must submit a minimum of three (3) titles from where a panel of three (3) members; the chairman, the research coordinator, and one faculty member who is an expert in the field will approve the final title.
4. For the title defense, all documents must be submitted to the Dean/Program Director at least three (3) days before the schedule. After the title defense, a thesis adviser will be assigned to the student upon his/her nomination.

5. For the pre-oral and oral defense, the documents should be submitted seven (7) days each before the schedule. The Dean/Program Director in turn provides each panel a copy of the documents.
6. The output for Educ 210, Method of Research is a Title Defense. The output for Educ 223, Thesis Seminar is a Pre-oral Defense, and the output for Educ 224, Thesis Writing is a Final Defense.
7. Enrolment for Educ 224, Thesis Writing is after passing the Comprehensive Examinations. It can be enrolled anytime having the adviser as his/her instructor. If after a semester the student has not finished his/her thesis, he/she can still enroll the subject Thesis Writing until his/her thesis is completed.
8. Payments for research requirements shall follow the CHED approved schedule of fees.
9. A copy of the Official Receipt from the Accounting Office must be presented to the Subject Teacher/Program Director before the title defense for recording.
10. A final oral defense will be scheduled by the Dean/Project Director upon the recommendation of the thesis adviser.
11. After the Final Oral Defense, the required number of five (5) book-bound copies will be submitted to the Dean for approval of Adviser, Panel and the Dean.
12. The one-on-one (1:1) policy shall be observed for all researchers; that is one research title, one student.
13. All approved theses shall be edited/proofread before book binding.
14. The Dean reserves the right to accept or deny thesis which does not meet the prescribed guidelines.

Guidelines for Deans, Research Head and Thesis Advisers

1. The Dean reserves the right to cancel the thesis defense for failure to comply with the prescribed requirements. payments, manuscripts, etc...
2. The Dean act as the Chairman of the Panel or may appoint the Program Director to act in his/her stead.
3. The Dean, Research Head and faculty member (content expert) and statistician shall compose the Examining Panel.
4. The Thesis Adviser should not sit as Member of the Examining Panel. He/She must be recommended by the Research Proponent. The dean has the final say to act on the recommendations/suggestions.
5. The Thesis Adviser is assigned a maximum of ten (10) Thesis Advisees per Academic Year.
6. A thesis Adviser must have the full knowledge of the Institutional Format.
7. A Thesis Adviser shall thoroughly check the Proposal/Thesis of his/her Advisee before requesting for a defense.
8. A Thesis Adviser sees to it that the official receipt is submitted before every defense.
9. A minimum qualification for a Faculty Adviser is an MA Degree holder for the undergraduate and a doctorate degree holder for the graduate program.
10. In case where specialization is required an external panelist maybe requested to sit as subject specialist.
11. A final hard copy of the Research must be submitted to the Dean as a final requirement for graduation.

12. Adviser shall be appointed by the Dean upon the recommendation of the student researchers.

FORMAT IN RESEARCH/THESIS WRITING

(Use Times New Roman using font size 12, double-spaced on 8.6”x11” bond paper, margin is 1.5” left, 1” top, bottom and right)

CHAPTER 1

INTRODUCTION

Background of the Study

This section presents the background and the concepts related to the study. It also presents the existence of the problem that motivates the need to be investigated.

Statement of the Problem

This section presents the general and specific objectives of the study. The specific objectives are stated in the form of questions which the researcher wishes to find the answers.

Hypothesis (optional, depending on the study)

The hypothesis of the study is stated in null form to establish associations, relations or correlations between or among the variables of the study. It must be coherent with the research question(s) or the study objectives.

Theoretical Framework

This section presents the theories as basis of the study. A theory that explains the existence of the problem and an elaboration on how the problem (dependent variable) may be influenced by the independent variable(s) are presented.

Conceptual Framework

The concept presented in this section are the variables found in the statement of the problem. The dependent, independent, intervening (if any) and sometimes the antecedent variables (if any are identified and the possible link(s) between/among them are explained. The explanation is based on the theoretical framework. A schematic diagram of the assumed flow of relationship between/among variable(s) is presented. The conceptual framework is presented both visual and textual.

Significance of the Study

Make a brief discussion why the study is important or significant. It states the contributions of the study and its results to specific groups or individual users, organization, community and to other people.

Scope and Limitations of the Study

This discusses the focus of the study, the respondents of the study, the place where the study was conducted, the instruments used in the study, the time and other similar variables of the study.

Definition of Terms

In this section, the major variables of the study and other important/relevant variables found in the problem and/or in the statement of the problem should be defined operationally according to how they are used in the study. The operational definition must indicate how a variable is going to be measured. Words, phrases, and acronyms used in the study are likewise defined.

CHAPTER 2

REVIEW OF RELATED LITERATURE

(this chapter will be written in separate paper or in new page)

In this chapter, write an introductory statement.

Make a quick review of some related literature and studies related to your study. Related literature and related studies are presented according to concept or subject. The concept or subject is based from the statement of the problem. If possible, year of publication of the literature and studies must be within a 10-year period or it can be more than 10 years but cited in recent paper. At the end of the review of related literature, write the synthesis.

CHAPTER 3

METHODOLOGY

(Give your introductory statement here)

Research Design

State and describe here the method of research or research design you used.

Locale of the Study

State the location of the study. Make some description of the place and attach a map showing the location of the study in a separate page.

Respondents of the Study

Present here the target population of the study and the respondents. Describe the characteristics of the respondents. The distribution of respondents is presented in the tabular form marked as Table 1.

Sample Size and Sampling Techniques

Get the sample size. Show the formula in obtaining the sample size. Describe the sampling techniques used.

Research Instrument

State the instruments used as tools for gathering the data, how they were formulated and validated to establish its reliability.

Data Gathering Procedure

This section presents the detailed procedure in gathering the data. It discusses the preparation, implementation and evaluation stages of the study.

Data Analysis Procedure

This explains how the data are gathered, processed, and analysed. Then proceed to a discussion on statistical procedures and or statistical treatments to be used.

CHAPTER 4**PRESENTATION, ANALYSES AND INTERPRETATION OF DATA**

(give an introductory statement)

This chapter presents the findings with analysis and interpretation of the data. Data are presented in tabular form. The table has an introductory statement that are written before the presentation of the table. The table should not be cut; if it is not enough in the space, it should be presented in the next page. Discuss only the table's highlights; if you discuss every item of the table in text, the table is unnecessary. Number all tables with Arabic numerals. Lay out table closest to where they are first mentioned. Do not use

suffix letters to number tables; that is, label tables as Table 5, 6, and 7 instead of 5, 5a, and 5b or combine the related tables into one table.

Example:

Table 1. Sex of the Respondents

Sex	Frequency	Percentage
Male	20	29
Female	50	71
Total	70	100

Mention all relevant results, including that run counter to the hypothesis. Do not include individual scores or raw data. After presenting the results, examine, evaluate and interpret their implications.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS (provide an introductory statement)

Summary of Findings

Present the problem or the general and specific objectives of the study, methodologies, respondents, data collected, statistical tools used, and summary of the findings of the study. If the study is quantitative, findings will be associated with numerical data.

Conclusions

The conclusions are directly based from the findings of the study. The statements in the conclusions answered the problem and/or hypotheses that have been tested. The conclusion does not carry numerical data.

Recommendations

The recommendations offer suggestions which are based from the findings and conclusions of the study.

References
(Separate Page)

Use the American Psychological Association (APA) Style in citing the sources used in the study. References are listed alphabetically in the References section and according to the following formats:

Journal Article Autor (Year). Title. Journal Name. Volume (Issue Number), Pages.

Example:

Galtung. J. (1964). Violence, peace, and peace research. Journal of Peace
Peace
Research, 6(3), 167-191.

Books Author (Year). Title. City, State: Publisher

Example:

Gottfredson, M.R. &Hirschi, T. (1990). A general theory of crime.
Standford, CA: Standford University Press.

Book Chapter Author (Year). Title of the Chapter. In Authors of the Edited Books,
Title

of the Book. City, State: Publisher.

Example:

Felson, M. (2008). Routine activity approach. In R. Wortley and I. Mazerolle (Eds), Environmental criminology and crime analysis. Portland, Oregon: William Publishing.

Electronic

Media

<http://www.apa.org/monitor/oct00/workplace.html>

Appendices

This includes the questionnaire, letters such as letter asking permission to conduct a study, letter request to validate the instruments, documents like CMO, circulars, Republic Act, and other documents. The curriculum vitae is at the last part of the appendices.

FORMAT OF COMPUTER'S THESIS

Thesis Involving Foundations of Computer Science

Title page

Abstract

Table of Contents

List of Figures, List of Tables, List of Notations

Introduction

Background of the problem

Statement of the problem

Objectives

Significance

Scope and Limitations

Related Literature

Theoretical Background

- include comprehensive discussion on theorems, definitions, fundamental algorithms, mathematical models/formula
- Proposed Solution to the Problem
- Results and Discussion, includes theoretical proof, verification or evidence
- Conclusions and Recommendations

Appendices may include the following:

- Relevant source code, where applicable
- Source data, where applicable
- One-page curriculum vitae per team member

- CMO 25 s 2015

Thesis involving Software Development

Title page

Abstract or Executive Summary

Table of Contents

List of Figures, List of Tables, List of Notations

Introduction

- Project Context
- Purpose and Description
- Objectives
- Scope and Limitations

Related Literature

Technical Background

- include in-depth discussion on relevant technical aspects of the project

Design and Methodology

- include discussion on conceptual design/system architecture/block diagrams and algorithms

Results and Discussion

Conclusions and Recommendations

Appendices may include the following:

- Relevant source code
- Evaluation Tool or Test Documents
- Sample Input / Output / Reports
- Users Guide

- CMO 25 s 2015

SUGGESTED AREAS FOR COMPUTER SCIENCE THESES

I. Current Computer Science Topics

- Software development and theory
- Mobile computing systems
- Software extensions or plug-ins
- Expert systems and decision support systems
- Systems software (software tools/utilities, interpreters, simulators, compilers, security aspects)
- Intelligent systems
- Game development
- Computer vision
- Image/signal processing
- Natural language processing
- Pattern recognition and data mining
- Bioinformatics
- Graphics applications
- Cloud computing
- Parallel computing
- Embedded systems
- Emerging technologies

II. Foundations of Computer Science

- Automata and formal languages
- Data structures and algorithm design and analysis
- Web semantics
- Coding theory

- Programming languages
- Visualization systems
- Computer and architecture
- Modeling and simulation

- CMO 25 s. 2015

Key Research Management Personnel
(SY 2017-2018)

Allan Angelo L. Quimpo
President
Chairman, Research Committee

Dr. Nena S. Patero
Head for Research
Vice Chairman

Rebecca T. Barrios
OIC Vice President for Academic Affairs
Member, Research Committee

Liza V. Cezar
Head for Extension

Bob James Q. Tirol
Budget/Finance Officer,
Member, Research Committee

Dr. Marianne Lao Quimpo
Dean, College of Education

Dr. Dennis I. Ibutnande
Dean, Bachelor of Science in Criminal Justice Education
Dean, Master in Public Management

Dr. Ambrosio R. Villorente
Dean, Bachelor of Arts

Mr. Christopher Jones Q. Fernandez
Dean, Business Administration

Mrs. Nolita M. Kismundo
Department Head, BS in Hotel & Restaurant Management

Mr. Joeblas S. Diaz
Department Head, Computer Science

Research Coordinators

College of Education	-	Mr. Ricky Latosa
College of Criminal Justice Education	-	Mrs. Dina Lariosa
College of Business Administration Fernandez	-	Mr. Christopher Jones
Department of Mass Communication	-	Dr. Ambrosio Villorente
Master of Arts in Education	-	Dr. Nena S. Patero
Master in Public Administration	-	Dr. Dennis I. Ibutnande
Senior High School	-	Mrs. Katherine Delfin