



**BULACAN  
POLYTECHNIC  
COLLEGE**

---

# **RESEARCH MANUAL**

**REVISED 2025**



---

## **RESEARCH MANUAL**

REVISED 2025

### **Introduction**

The Bulacan Polytechnic College (BPC) Planning, Research and Extension Office adheres to the vision and mission of the institution, that is to produce scholarly-quality-kind of scientific investigations. As such, it is the utmost intention of the research department to conceptualize and mobilize for the promulgation of the research policy that is within the bounds and mandates of an institution of higher learning that advocates to the directives of Commission and Higher Education (CHED). It is standing on a solid ground of surety and relentless pursuit of an ideal input and output researches that are premised on the agenda-driven similar to the course programs offered by the institution. Foremost, the policy crafted is to ensure that all research yields are on top in the areas of usability and functionality - that may serve as a nucleus of intellectual reference materials for further developments.

Further, the guidelines envisage the kind of research endeavors the students, faculties, staff and stakeholders bank on; and is fulcrum to a much doable and sustainable research agenda-honed to a clear view of its research and directives and priorities. This, likewise, warrants that researches are free from liens and other encumbrances that may hamper the integrity and genuineness of the research products because the guidelines instituted are in the right track and adhere to the research priorities of government agencies like the Commission on Higher Education (CHED), the Department of Science and Technology (DOST) and the National Higher Education Research Agenda (NHERA). Moreover, there are different research designs provided to induce easy undertakings by the research proponents that may serve as an impetus to a world-class quality leading to online research journal publication.

### **Vision and Mission Statement**

#### **Vision**

The Research Department envisions being a working arm of the Bulacan Polytechnic College in serving the institution's needs through tangible research input and output that can translate into actions by the College; and being proactive to the main thrust, objectives, and programs of the College.

#### **Mission**

Towards this end, the Office of Research Planning and Extension (ORE) shall conduct the following:

- Empirically observe, investigate, and research existing problems and trends within the College that can transform into good subject matter for analysis;
- Conduct research training for faculty members through research fora;
- Create and strengthen tie-ups and linkages with private and public industries and academic institutions for possible twinning programs;
- Initiate and conduct research works for the benefits of the institution;
- Publish research journal to chronicle faculty research works to provide research work references for others; and
- Motivate faculty and staff to conduct action research works.



---

## **RESEARCH MANUAL**

REVISED 2025

### **Office of Research, Planning and Extension**

#### **1. Statement of Principles**

The College is committed to equipping the teachers, students and staff with the necessary technological and intellectual capacity to face modern technology's changing demands, developing the teachers' individual working attitudes and values, and engage in research studies for innovative undertakings.

Edifying the image of the school by providing industry-driven curricular programs; and enhancing the faculty and staff's intellectual, moral, and spiritual standards.

The Research Office is committed to:

- 1.1 Generate knowledge to respond to the challenges of the fast-growing programs of the College;
- 1.2 Undertake research to support curricular enrichment and address problems in the teaching learning process;
- 1.3 Encourage and develop faculty competencies in writing research proposals, action research, fundamental research, and feasibility studies; and
- 1.4 Establish solid and functional linkages and collaborations with the cooperating agencies for possible commissioned study.

#### **Scope of the Research Policy**

The Research Policy shall cover the entire research undertakings of Bulacan Polytechnic College both Institutional and Curriculum-based researches.

Institutional covers academic and non-academic areas for both internal and external research activities aimed to develop or investigate current socio-economic, technological, or societal issues within the institution or the community spearheaded by the Office of Research, & Extension thru the school's in-house experts, statisticians, teaching faculties and non-academic staff/personnel.

Curriculum-based research pertains to academic research for undergraduate students (College). Of which, the research studies are required for the compliance of the academic programs.

#### **Research Agenda Formulation**

The Research Agenda shall be drawn from the research priorities of the Commission on Higher Education (CHED), and the National Higher Education Research Agenda 2 (NHERA 2) that match faculty expertise of academic programs, the other relevant government agencies, the needs of the Local Government Units, the teaching and learning needs of the academic programs, the community and/or stakeholders and most of all, the



---

## **RESEARCH MANUAL**

REVISED 2025

mandates of the institution thru its Vision, Mission and Goals. The faculty shall prioritize the needs and translate into topics of which the researchers will select as their area/topic for study.

### **Research Agenda(2017-2035)**

The Bulacan Polytechnic College – Office of Research, & Extension adheres to the Vision, Mission and Goals of the institution leading to the formulation of the Research Agenda for 2017 to 2022 which are:

#### **1. Social Development**

This agendum focuses in providing improvement as to the well-being of every individual in the society for them to reach its full potential in the field of education ,business, criminal justice ,hospitality and information technology. As such, this potential research key are as are introduced to the undergraduate and senior high school students of specific programs asset of knowledge in order to explore and innovate thru the conduct of qualitative or quantitative research, investigatory project, feasibility study or capstone projects. Specific topics of this key shall be within the scope of the basic and higher education research priority areas or within the context of the academic program’s memorandum orders issued by the Commission on Higher Education and the Department of Education.

#### **2. Cultural Preservation**

Culture plays a vital role as the cradle of our national identity. Researchers shall center on the revival \_\_\_\_\_ or discovering forgotten literatures of dances, songs, writings, and beliefs of indigenous people of the Caraga region. This agendum seeks the following research questions such as but not limited to:

- a. What local/indigenous cultures or customs exist that has a significant threat to extension?
- b. How these cultures or customs be preserved?
- c. What programs or activities shall be designed/developed to provide a sustainable preservation and impact to the concerned indigenous people and the community in general?

#### **3. Environmental Conservation**

Environmental conservation is mainly protection ,preservation, management and restoration of the natural environment and its ecological communities involved. Institutional activities shall be organized to conduct research, collaboration and partnership with government agencies such as the Local Government, the Department of Environment and Natural Resources, the Department of Science and Technology and significant stakeholders to formulate a long-term plan to identified potential areas for environmental conservation within the locality.

### **Institutional Research**

The Institutional research pertains to the research undertakings of the personnel and its partner agencies and stakeholders .The research covers the institutional mandate to seek knowledge as solutions to the impending



---

## **RESEARCH MANUAL**

REVISED 2025

Issues and concerns within the organization and to the community. Institutional research shall be participated both academic and non-academic sectors of the organization.

Institutional research must be of the great interest of the organization of which products of these undertakings will be utilized for institutional decision-making, planning, development, innovation and community extension.

The school shall encourage on-academics staff to implement interventions to their service problems to enhance customer satisfaction.

### **Curriculum-based Research**

This refers to student research that covers the Undergraduate students input and output. These research adheres to the mandate of its disciplinal academic programs which are governed by the Commission on Higher Education. With this academic requirement, the ORE shall impose policy in the conduct of student research to ensure quality outcomes with good research practices; of which research outputs leads to the production of a publishable paper that will be included in the online journal of each academic department.

## **PART 1**

### **THE FACULTY ACTION RESEARCH**

Action research in education is beneficial for improving teachers 'and administrators' professional practice and for solving problems in education. Pursuant to Republic Act 7722, "An Act Creating the Commission on Higher Education," which states that "...the knowledge society or knowledge economy characterizes the institution not just a generator of knowledge, an educator of young minds and a transmitter of culture but also a major agent of economic growth, a Research and Development laboratory and a mechanism through which the nation builds its human capital to enable it to actively participate in the global economy" it is therefore, imperative to inspire and enable Philippine Higher Education (HEIs) become platforms for research and development, innovation and extension in pursuit of inclusive social and economic development.

In order to maintain a balance between discovery and applied research, the Commission on Higher Education believes that national direction and state investments in research, innovation, and extension in higher education institutions must be anchored on the discovery-applied research continuum. Thus, Bulacan Polytechnic College strives to develop a workable research, innovation, and extension system that prioritizes relevance, utility, and social impact through action research.

The research guidelines are intended to guide those planning to conduct research as well as those seeking funding through regional and national committees.

### **Action Research Guidelines**

#### **a. Types of Action Research**



## **RESEARCH MANUAL**

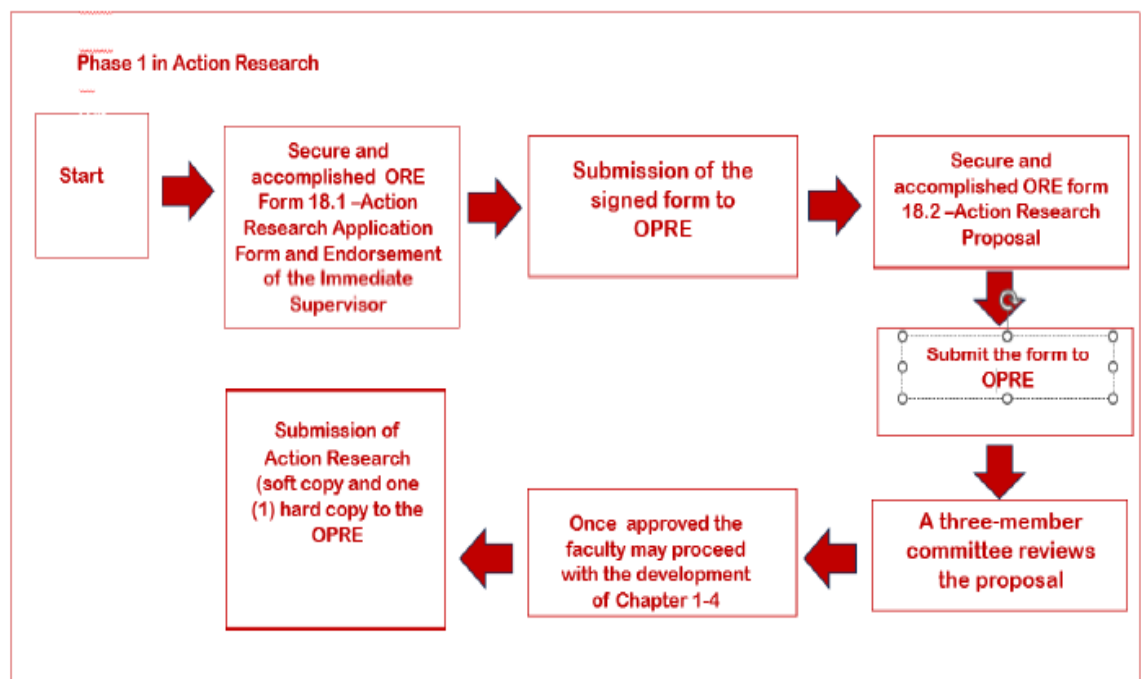
REVISED 2025

**Community-based research** is a participatory approach in which research projects are driven by community priorities and the community is involved throughout the research process, from writing the project proposal to analyzing the results to acting on the research findings. The research directly benefits and serves the community, addressing the interests and needs. Research builds on and contributes to the community's strengths and resources. Positive, ecological, and cultural beliefs and values are used to address health.

**Classroom-based Action Research** aims to develop and implement action research to improve student learning. It is to identify issues, concerns, and problems that have a negative impact on student learning and then develop and implement a strategy/intervention to address the issues.

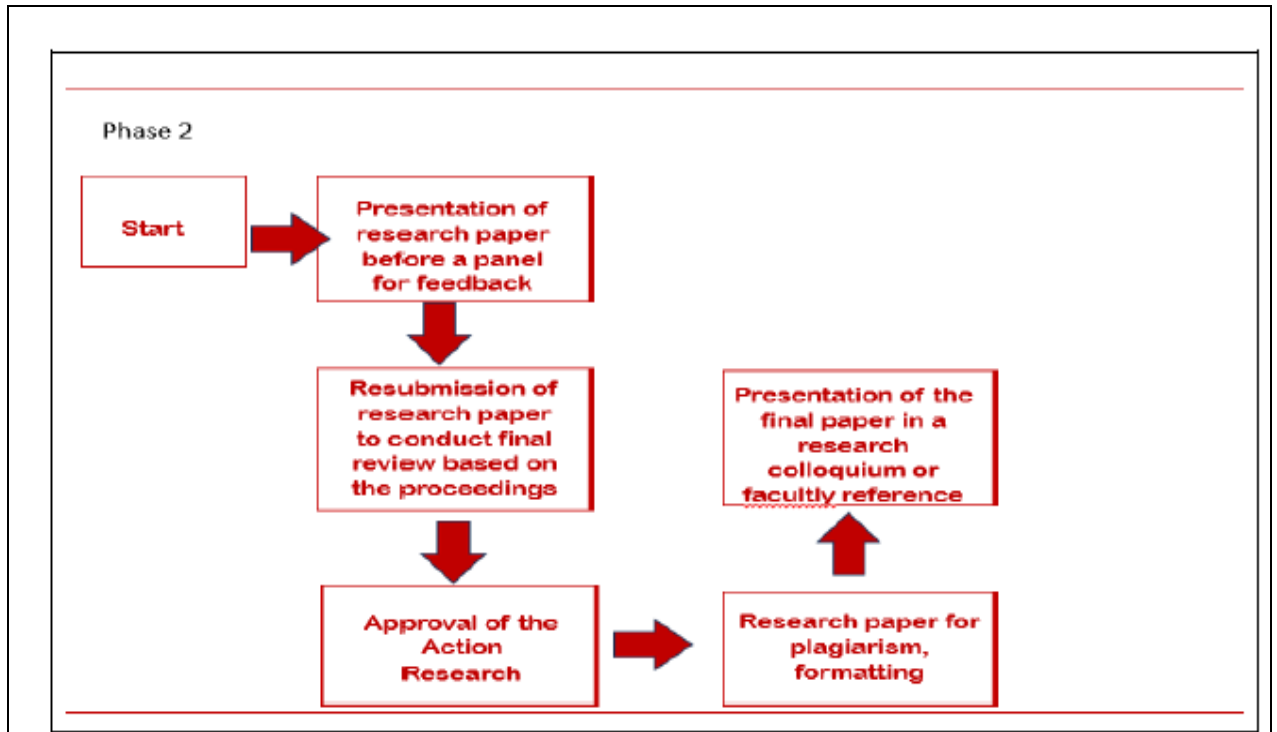
### **b. Proponents:**

- For Faculty members who intend to do action research, collaborative action research is suggested for you. **It is action research that five(5) teachers in the same field, addressing a classroom or subject issue.** This issue may involve one classroom or a common problem shared by many classrooms. The teacher may be in quest of solutions to difficulties of classroom organization, instructional strategies, use of materials, or student learning. Proponent-teachers can conduct their action research drawing from various aspects of school life. These aspects can be categorized into three issues namely; student issues, teacher-classroom issues, and instrumental development issues.
- We encourage faculty members with administrative responsibilities and/or a Master's or PhD to focus on District-wide research. This type of research is far more complex and requires far more resources, but the rewards can be substantial. Issues can be school-centered, organizational, community-based, performance-based, or decision-making processes. It may decide to address a problem that affects multiple departments or one of organizational management.





**RESEARCH MANUAL  
REVISED 2025**



Note: A master's thesis or dissertation that has been converted into an action research does not need to go through an oral defense if the respondents are from Bulacan Polytechnic College; instead, it needs to be formatted in an IMRAD

**c. FRAMING THE RESEARCH TITLE**

The title shall not exceed 20 substantive words, function words not included. However, it is recommended that length of the title is 12w to 15 words.

Avoid the use of phrases such as "A study of", "An investigation of", etc.  
e.g. primary variable/s plus participants of the study.  
Academic Cheating among 1<sup>st</sup> year College students

**PARTS OF AN ACTION RESEARCH**

Preliminary Page

Title Page

Table of Contents

**CHAPTER 1**

- I. **Context and Rationale** - justify the needs for your study. Thus it should answer the question why;
  1. Why you choose the topic?
  2. Why it is important?
  3. Why you adopted a particular method or approach.
- II. **Review of Related Literature**
- III. **Research Questions** - is a specific, focused inquiry that aims to identify and address a problem or challenge within a particular context. Specify the specific sub- problems based on the main problem in 3 - 5 questions
- IV. **Proposed Innovation, Intervention and Strategy** - refers to the specific new approach or method



**OFFICE OF THE VICE PRESIDENT FOR PLANNING, RESEARCH AND EXTENSION**

---

that the researcher plans to implement to address a identified problem within a particular context, outlining the detailed steps and actions that will be taken to test and evaluate its effectiveness;

**CHAPTER II**

**V. Action Research Methods**

- a. Participants and other source of Information
- b. *Data Gathering Method*- Describe the research tools or instruments for data-gathering Forms for the collation or tabulation of data Describe the data-gathering procedures
- c. *Research Instrumentation Research Instrument/Tool* - the data-gathering tool Interview questionnaire Survey Observation tool Checklist Survey Form Anecdotal record Case Study Form Cumulative Record Tool
- d. *Statistical Tools/Treatments* -The commonly used statistical tools are as follows: Frequency Distribution Percentage Ranking Weighted Mean (WM) using the rating scale with descriptive equivalent Measures of Variability (Range, Variance, & Standard Deviation)
- e. Ethical Issues
- f. *Data Analysis Plan*- The data in this part will be organized according to the order of the statement of the problem and will be presented in tabular form
- g. *Action Research Work Plan and Timelines* -A detailed work plan is provided covering start to completion of the action research - presented in tabular form comprising activities or strategies, specific timeline including the number of days, person/s involved, and the mode of verification (MOV) contains when will the research project begin and how long will it take for it to be completed;

It Involves Means of Verification:

Pre-implementation stage- outlines the detailed steps necessary to prepare for the research intervention, including identifying the problem, gathering relevant data, developing the intervention strategy, securing necessary approvals, and training participants involved in the research process before actively implementing the change within the context being studied.

Implementation stage -a detailed roadmap outlining the specific steps to be taken to put the research-based interventions or strategies into practice within a given context, including timelines, responsible parties, monitoring mechanisms, and clear evaluation procedures to assess the effectiveness of the implemented changes.

Post Implementation stage - is a detailed strategy outlining the steps to be taken to monitor, evaluate, and refine the interventions implemented based on the findings of the research, with a focus on sustaining positive changes and addressing any emerging issues that may arise after initial implementation.

**VI Cost Estimates** (If necessary)

**VIII Plans for Dissemination and Utilization** -Activities to be done after the conduct and submission of the completed action research report (e.g. Oral Presentation of the study to trainings/seminar, publication of the study,etc.

**CHAPTER III -Results**

**VIII Results** (Table and Narratives)

**CHAPTER IV - Conclusions and Recommendations**

**References - In APA format**

**Styles and Formatting**

- Titlepage-includesthetitleofthestudy,name/sofproponent,department
- Font style-Arial
- Font size- 11
- Spacing-double space(except for tables)
- Paper size- letter
- Margins-Normal(1inch in all sides)
- Pagination-upper-right corner



## **RESEARCH MANUAL**

REVISED 2025

### **PART 2**

## **THE UNDERGRADUATE RESEARCH**

At Bulacan Polytechnic College, student research is an integral part of our educational philosophy and academic framework. As part of our commitment to providing a comprehensive and high-quality education, research is a required component for all students enrolled in our bachelor's degree programs. This requirement is designed to help students deepen their understanding of their chosen fields, enhance their critical thinking skills, and prepare them to contribute meaningfully to their professions and communities.

Student research provides an opportunity for learners to apply the theoretical knowledge they have gained in the classroom to real-world problems and challenges. Through the research process, students are encouraged to explore innovative solutions, generate new insights, and actively engage with contemporary issues in their disciplines. Whether in the fields of engineering, business, information technology, education, or other academic areas, research fosters the development of important skills, such as data analysis, problem-solving, communication, and collaboration.

As a graduation requirement, research enables students to demonstrate their ability to conduct independent, systematic investigations that adhere to academic standards and ethical guidelines. The research process—comprising topic selection, literature review, data collection, analysis, and reporting—prepares students for the demands of the professional world, where research and evidence-based decision-making are essential.

In addition, student research at Bulacan Polytechnic College is designed to align with the needs of the community and industry, ensuring that the outcomes of these research projects have practical applications. Many research topics are rooted in addressing local community challenges, improving industry practices, or advancing technology, making student research a valuable tool for societal development.

Ultimately, the research requirement helps shape well-rounded graduates who are not only academically proficient but also capable of thinking critically, innovatively, and ethically. It prepares them to succeed in their careers and become leaders in their fields, equipped with the knowledge and skills necessary to address complex problems and contribute to the advancement of their communities and industries.



**RESEARCH MANUAL**

REVISED 2025

**Bachelor Programs with Thesis Requirements**

**BTVTED Program (CMO-No.-79-s.-2017)**

<b>Course Title</b>	<b>Technology Research I</b>
<b>Course Description</b>	The course provides with important concepts of the methods of research covering the design, data collection, statistical application and development of research instrument. This also requires the students to prepare a research proposal which includes the introduction, significance of the research, methodology and the timeline of the study.  The proposal will serve as a basis for Technology Research II.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours per meeting/ 54 hours in a semester</b>
<b>Prerequisite</b>	

<b>Course Title</b>	<b>Technology Research II</b>
<b>Course Description</b>	The course is a continuation of Technology Research where the students are expected to complete the research proposal aligned to the areas of specialization. This includes the presentation, tabulation, analysis and interpretation of the data collected. An oral presentation of the output of research is required among the students.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours per meeting/ 54 hours in a semester</b>
<b>Prerequisite</b>	<b>Technology Research I</b>

a

**BSAIS Program(CMO-30-s-2017)**

<b>Course Title</b>	<b>AISR 416 Accounting Information System Research</b>
<b>Course Description</b>	This is the continuation of the course on Accounting Research Methods (AREM 313). It is the second of two courses on the conduct of empirical research relevant to the field of Accounting Information Systems. The previously approved research proposal - the final output of the Accounting Research Methods course – becomes the springboard for the actual conduct of applied research in this course. The primary thrust of the course is on developing skills for producing applied research output that has real-world significance.  Students are afforded the opportunity to implement the previously-conceptualized and approved research project through data collection & analysis, interpretation of results, developing & evaluating alternatives, developing recommendations, and research reporting. This may involve the use of statistical procedures through SPSS or Excel. Students are expected to produce a research paper and defend the same before a panel.
<b>Course Credits</b>	<b>3 units</b>
<b>Contact Hours</b>	<b>3 hours per meeting / 54 hours in a semester</b>
<b>Pre-requisite</b>	<b>AREM 313</b>



**RESEARCH MANUAL**

REVISED 2025

**BSIS Program (CMO-No.25-s2015)**

**COURSE** : Bachelor of Science in Information Systems  
**COURSE CODE** : IS 421  
**COURSE TITLE** : Capstone Project 1  
**COURSE CREDIT** : 3 units  
**COURSE DURATION** : 54 Hours  
**COURSE PRE-REQUISITE** : IS 101, IS 105, IS 207, IS 209, IS 315, IS 318  
**FACULTY** :  
**COURSE DESCRIPTION** :

The Capstone Project aims to provide students with the experience of developing a medium-scale computing project in a small team. All projects are real, they have an external client or producer. All aspects of the development process are considered: problem specification, requirement extraction or concept formulation, system design, implementation, integration, testing and documentation. This course, Capstone Project 1, concentrates on the planning stage of the project: problem specification, requirement extraction or concept formulation, system design.

**COURSE** : Bachelor of Science in Information Systems  
**COURSE CODE** : IS-Cap2 423  
**COURSE TITLE** : Capstone Project 2  
**COURSE CREDIT** : 3 units  
**COURSE DURATION** : 54 Hours  
**COURSE PRE-REQUISITE** : IS 421  
**FACULTY** :

**COURSE DESCRIPTION** :

This course, Capstone Project 2, is the continuation of IS 421 – Capstone Project 1. Project 2 is a capstone course focusing on the implementation, integration, testing and documentation phase of the development of information systems. The earlier phases of requirements and design have been considered in previous information systems courses. You will work in a team to experience the system development process.

Project 2 considers in detail the issues of coding and implementing quality information systems in an organizational context. These issues include: identifying attributes of quality, project management (resource management), project effort estimation, software testing, maintenance, evaluation of software products and processes. Quality is an overarching issue that is a consideration within the domain of all the above issues and is a unifying theme throughout the whole course. The combination of the courses is the final defense of the project.



**RESEARCH MANUAL**

REVISED 2025

**BSOM Program (CMO-No.19-s2017)**

Course Name	:	<b>Internet Research for Business</b>
Course Description	:	This is a business-oriented internet course which covers all of the major access routes for using resources on the internet including email, telnet, email groups, discussions, and the world wide web. Legal, ethical, and social issues involving the use of the internet and internet files are covered in the course.
Course Credits	:	3 units
Contact Hours/semester	:	54 hours
Prerequisite	:	Introduction to Research
Course Objectives	:	At the end of the semester, the students should be able to: 1. Find and use the business resources available on the internet. 2. Build and modify websites. 3. Accomplish all class work through the internet.

**Standard Research Format**

All research undertakings of the institution shall follow the standard formats based on research designs as follows:

**Format A. Quantitative Research Design (BTVTE and BSOM)**

**Preliminary Pages:**

1. Title Page
2. Approval Sheet (*unified format with school logo*)
3. Acknowledgement
4. Abstract (*190-210 words*)
5. Table of Contents
6. List of Tables
7. List of Figure
8. List of Graphs

**Main Body:**

9. Chapter 1. Introduction
  - a. Background of the Study with
    - Rationale
    - Significance of the Study
  - b. Theoretical Framework
  - c. Conceptual Framework
  - d. Statement of the Problem
  - e. Hypothesis
  - f. Scope and Limitations
  - g. Definition of Terms
10. Chapter 2. Review of Related Literature



## **RESEARCH MANUAL**

REVISED 2025

11. Chapter 3. Research Methodology
  - a. Research Design
  - b. Research Locale
  - c. Research Respondents
  - d. Research Instrument
    - Construction/origin
    - Reliability/validity
  - e. Ethical Standards
  - f. Data Gathering Procedure
  - g. Statistical Treatment (*no formula*)
12. Chapter 4. Results and Discussion
13. Chapter 5. Conclusions and Recommendations
14. **References (Adhere to APA Format)**

### **Supplementary Pages:**

#### Appendices

- A –Letter of Approval with Certificate of Appearance and Photo
  - B –Instrument with Informed Consent
  - C –Approved Research Proceedings Form
  - D –Curriculum Vitae
  - E –Narrative & Photo Documentation
- 

### **Format B. Qualitative Research Design (BTVTEd and BSOM)**

#### **Preliminary Pages:**

1. Title Page
2. Approval Sheet
3. Abstract
4. Acknowledgement
5. Table of Contents
6. List of Tables
7. List of Figures

#### **Main Body:**

8. Chapter I –The Problem and Its Setting
  - a. Introduction
  - b. Purpose of the Study
  - c. Research Questions :The Central Question
  - d. Sub-questions
  - e. Theoretical Lens
  - f. Scope and Limitation of the Study
  - g. Definition of Terms
9. Chapter II –Related Literatures and Studies
10. Chapter III –Research Methodology
  - a. Research Design
  - b. Research Locale
  - c. Informants
    - i. Research Participants



---

## **RESEARCH MANUAL**

REVISED 2025

- ii. Sampling Technique
- d. Ethical Standards
- e. Data Collection Procedure
  - i. Permission
  - ii. Non-Participant Observation
  - iii. Internet and Library Research
- 11. Chapter IV-Results
- 12. Chapter V-Findings
- 13. Chapter VI-Conclusions and Recommendations
- 14. **References (adhere to APA Format)**

### **Supplementary Pages:**

#### **Appendices**

- A -Letter of Approval with Certificate of Appearance and Photo
- B -Instrument with Informed Consent
- C -Research Locale (*Include Coordinates*)
- D -Curriculum Vitae
- E -Narrative & Photo Documentation

#### **FORMAT C CAPSTONE PROJECT (BSIS) Preliminary Pages**

- Title Page
- Approval Sheet
- Acknowledgment
- Executive
- Summary Table of Contents
- List of Figures and Tables

#### **Main Body:**

- Chapter I. Introduction
  - a. Project Context
  - b. Purpose and Description
  - c. Objectives
  - d. Scope and Limitation of the Study
- Chapter II .Review of Related Studies and Technical Background
  - Related Studies
  - Technical Background of the Project
  - Technical Background of the System(System Flow)
- Chapter III. Methodology
  - a. Design and Development(Research)
    - Research Design(qualitative ,quantitative, mixed-method)
    - Theoretical & Conceptual Framework
    - Target Clientele
    - Data Gathering Procedure
    - Instrument of the Study
    - Limitation
    - Ethical Consideration
  - b. Development Process, Testing and Implementation of the System



---

## **RESEARCH MANUAL**

REVISED 2025

### Chapter IV– Result of the Study

- e. Existing (if applicable)
- f. Proposed
  - Summary of Findings
  - Interpretation of the Results
  - Comparison with previous system (if applicable)
  - Implications of the

### Findings Chapter V –Conclusion

**References (adhere to APA format)**

### **Supplementary Pages:**

#### Appendices (figure)

- A -System Source Code/Program Developed (Photodocumentation)
  - B -User's Manual
  - C -Certificate of Implementation
  - D -End User System Evaluation
  - E -Documented Undertakings
  - F -Curriculum Vitae
- 

### **Format D. Prototype Project**

#### **Preliminary Pages**

- Title Page
- Approval Sheet
- Acknowledgement
- Executive Summary (Abstract) Table of Contents
- List of Figures and Tables

#### **Main Body:**

##### **Chapter I. Introduction**

- 1.1 Background of the study (Trends, Issues, Concerns)
- 1.2 Project Context (Business Background)
- 1.3 Purpose and Description (Objectives)
- 1.4 SOP (Research Questions/Problem)
- 1.5 Research Hypothesis/Assumption
- 1.6 Scope and Limitation of the Study
- 1.7 Definition of terms

##### **Chapter II. Review of Related Studies and Technical Background**

- 2.1 Related Studies
- 2.2 Development of Accounting Information System
  - 2.2.1 Information System Development Method (ex. RAD)
  - 2.2.2 System Requirements Analysis
  - 2.2.3 System design
  - 2.2.4 Testing the Systems
  - 2.2.5 Implementation
  - 2.2.6 System Design Tools
    - 2.2.6.1 Data Flow Diagram
    - 2.2.6.2 System Flow Chart

##### **Chapter III. Research Method**

- 3.1 Research Design (qualitative, quantitative, mixed-method)
- 3.2 Target Clientele



---

# **RESEARCH MANUAL**

REVISED 2025

- 3.3 Data Gathering Procedure
- 3.4 Instrument of the Study
- 3.5 Data Analysis
- 3.6 Ethical Consideration

## **Chapter IV – Result of the Study**

- 4.1 Summary of Findings
- 4.2 Interpretation of the Results
- 4.3 Comparison with previous system (if applicable)
- 4.4 Implications of the Findings

## **Chapter V – Conclusion**

### **References – (adhere to APA Format)**

### **Supplementary Pages:**

#### **Appendices (figure)**

- Appendix A. System Source Code/Program Developed (Photodocumentation)
  - Appendix B. Documented Undertakings
  - Appendix C. End User System Evaluation
  - Appendix D. Curriculum Vitae
- 

### **Format E. Publishable Format (3,500-4,100 words or 10 pages)**

Title

Author(s) and Co-

Author(s) ORCID number

Email Address

Affiliation

Address

Abstract

Keywords

- 1. Introduction**
- 2. Brief Literature Review & Hypothesis Development**
- 3. Objectives of the Study**
- 4. Methodology**
  - a. Justification for selecting the research site
  - b. Inclusion criteria for respondents
  - c. Compliance with Research Ethics Protocol
  - d. Instrumentation: source, construction, tryout, reliability, and validity
  - e. Scoring Procedure
  - f. Data Gathering Procedure
  - g. Statistical Procedure
- 5. Results and Discussion**
  - a. Answers to each objective and testing of hypothesis
  - b. Presentation of relevant and significant results
  - c. Triangulation of analysis
- 6. Conclusions**
  - a. Judgments derive from the data analysis
  - b. Validation of the theory used
- 7. Recommendations**



---

## **RESEARCH MANUAL**

REVISED 2025

- a. Suggestion for replication if good results are found
- b. Advice for new topics
- c. Leads for research policy, program, activity, recommendations to certain sectors.

**Acknowledgments.** Funders and technical experts used in the study

**References Cited.** Bibliographic entries of references cited in the body of the text.

---

### **RESEARCH PROJECT GUIDELINES**

With the approval of the Office of the Vice President for Academic Affairs, the following must be implemented:

For undergraduate students, **Format A, B, & C** shall be followed accordingly.

**Format D** shall be followed upon completion of the final research manuscript as entry for different research for a (regional, national & international) across disciplines.

### **Research Advisories/Instructors**

1. Each group of thesis students will have an adviser to be recommended by the subject instructor, with the approval of the Program Head, and noted by the Vice-President for Academic Affairs. Must accomplish and submit the **ORE FORM 2-THESIS ADVISING FORM** to the ORE.
2. Advisers should be regular faculty members of Bulacan Polytechnic College, **holding at least 18 graduate units and currently enrolled in a Master's Degree Program** relevant to their area of specialization.
3. **Research Instructors are qualified to have advisees provided they can handle the duties and responsibilities of both Instructor and Adviser.**
4. The **number of Advisees per Adviser** depends on the willingness and capability of the Adviser. Faculty members with master's or doctorate degrees are expected to accept at least two groups of advisees, except when there is a valid reason accepted by the program head and noted by the Vice-President for Academic Affairs. A culture of academic support system and cooperation in educating students must be given importance at all times.
5. When circumstances warrant a change in thesis topic and/or adviser, the student should notify the instructor and the department head in writing for deliberation on the merit of the request.
6. Adviser shall be responsible for:  
Advising the students in the preparation of their thesis proposal.
  - Providing immediate feedbacks on his/her advisees' papers to avoid delays in target schedule for final defense.
  - Document all the consultations conducted with the advisee/s. (Use ORE Form 11)
  - Guiding and monitoring the student's thesis research.
  - Ensuring the academic integrity of the student's thesis research.
  - Signing the hard-bound copies of the student's thesis.
7. Duties and responsibilities
  - a. Guides the students during the preparation of the research study/thesis/capstone project.
  - b. Provides relevant, timely and unique research topics which is aligned to the research agenda of the institution.
  - c. Evaluates research titles prior to submission.
  - d. Monitors the progress of the research.
  - e. Signs necessary forms.



## **RESEARCH MANUAL**

REVISED 2025

- f. Document the proceedings of the defenses (for research advisor only).
- g. Certify the readiness of the advisee to undergo research defenses.
- h. Meets regularly with the advisee/students.
- i. For Research Instructors, submits the grades, facilitate the compliance of the research requirements and coordinate with the research advisors.

### **Technical Panel**

Technical panelist referred as the **Research Panel Committee (RPC)**. This committee shall be responsible of reviewing research studies for both the Undergraduate students and Faculty researchers.

- A. Each group of thesis students will have an examiner to be recommended by the research instructor, approved and appointed by the Department head and noted by the Vice President for Academic Affairs (VPAA). Use ORE Form 12
  - B. The Thesis Examiner may come from any Academic Group from within Bulacan Polytechnic College.
  - C. The Thesis Examiner is preferably a Master's Degree holder or at least enrolled in a Master's Degree Program with a background in the field of specialization.
  - D. Technical Experts are those faculty members with expertise and specialization of the field.
  - E. **The panel must be composed of three (3) members and among them they have to choose as to who will be the chairman.**
  - F. The Examiner's role is to read the thesis manuscript, make corrections and suggestions to further improve the manuscript, and evaluate if the manuscript meets academic standards.
  - G. Research Panel Committee shall be composed of the following:
    - i. Vice President for Research and Extension/Director of International Linkages/Community Extension Service Officer/Research Consultants and Officers (representing the OVPRE)
    - ii. Quality Assurance Officer (representing the OVPAA)
    - iii. Program Heads
    - iv. Technical Experts (recommended by the Program Head)
2. **Duties and Responsibilities of the Research Panel Committee:**
- a. Panel chair shall preside the conduct of the oral defenses and arguments;
  - b. Ensure that the research study is aligned to the Research agenda of the institution;
  - c. Evaluate the research study based on the standardized assessment tools;
  - d. Write recommendations, suggestions and comments after each scheduled oral presentation;
  - e. Review each suggested changes, suggestions and comments during the compliance of the research study (ex. manuscripts for Literature review, Proposal and final manuscript);
  - f. Signed pertinent documents or forms to attest the authenticity and entirety of the recorded information;
  - g. Panel chair will present the decision of the RPC during the last part of the defense;
  - h. Endorse research proceedings to the ORE; and
  - i. Maintain ethical conduct and confidentiality of the proceedings.

### **Research Editors**

1. Internal editors are the Research Officers, Research Consultants and the Vice President for Planning, Research and Extension who have been trained and certified as research editors.
2. External editors are those editors sourced outside the institution. These external editors serve as blind peer reviewers of the undergraduate students and Faculty researchers to ensure world class quality researches.



**RESEARCH MANUAL**

REVISED 2025

**Research Ethics**

The Office of Research and Extension shall establish a committee that will focus on the conduct of ethical researches for both institutional and curriculum-based research. Such that, these committee adheres to the fundamental principles of research ethics as stipulated in the Republic Act No. 10532 which it summarizes ethical principles and guidelines for research particularly involving human subjects.

The committee shall be the BPC-ORE Research Ethics Committee that will embody and regulate all research activities of the institution as far as the ethical standards of research is concerned. BPC-ORE shall uphold the three core principles which are; respect for persons, beneficence, and justice. Of which these can be complied thru the presence of informed consent, assessment of risks and benefits, and selection of subjects.

The primary objective of the BPC-ORE is to ensure that all research or research-related undertakings of all academic levels and non-academic areas be it departmental/curriculum-based or institutional research manifest good research practice. REC shall review all study conducted by students and faculties in the undergraduate levels. Members of the BPC-ORE shall undergo training and accreditation by the Philippine Health Research Ethics Board and presence of the PHREB approved Standard Operating Procedure (SOP) shall supplement this policy.

The ethics review shall be conducted after the research proposal defense to ensure compliance of the ethical standards. And BPC-ORE to re-evaluate the compliance during the Final Oral defense.

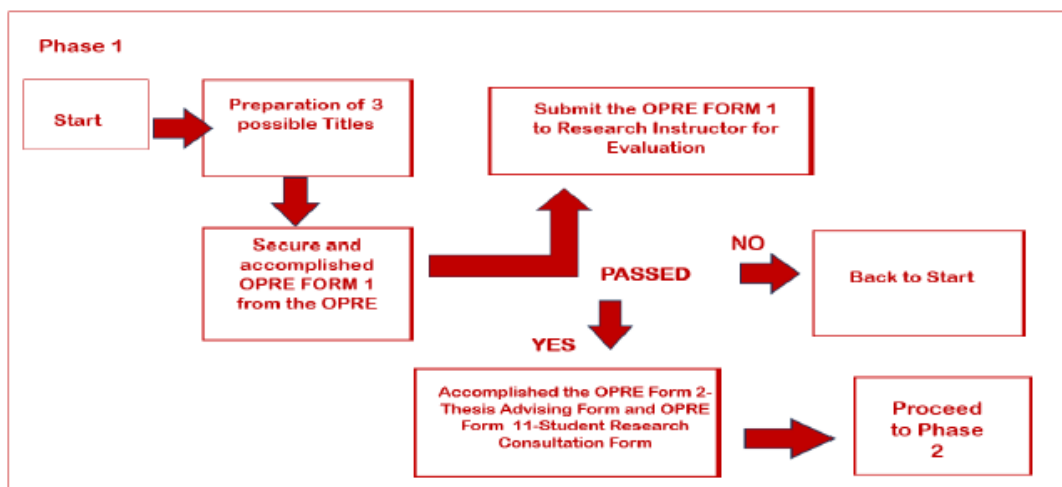
**Stages of Undergraduate Research**

Research studies for Undergraduate students shall be two (2) semesters to provide an ample time for the researchers to conduct their studies. These includes the gathering of data, analysis, and system/prototype development and implementation for BSIS &BSAIS programs. Research courses offering will solely base on each program’s approved and contents noted curricula.

**1. Research Flow (suggested by the ORE but may still depend on the research instructors)**

**A. PROPOSAL**

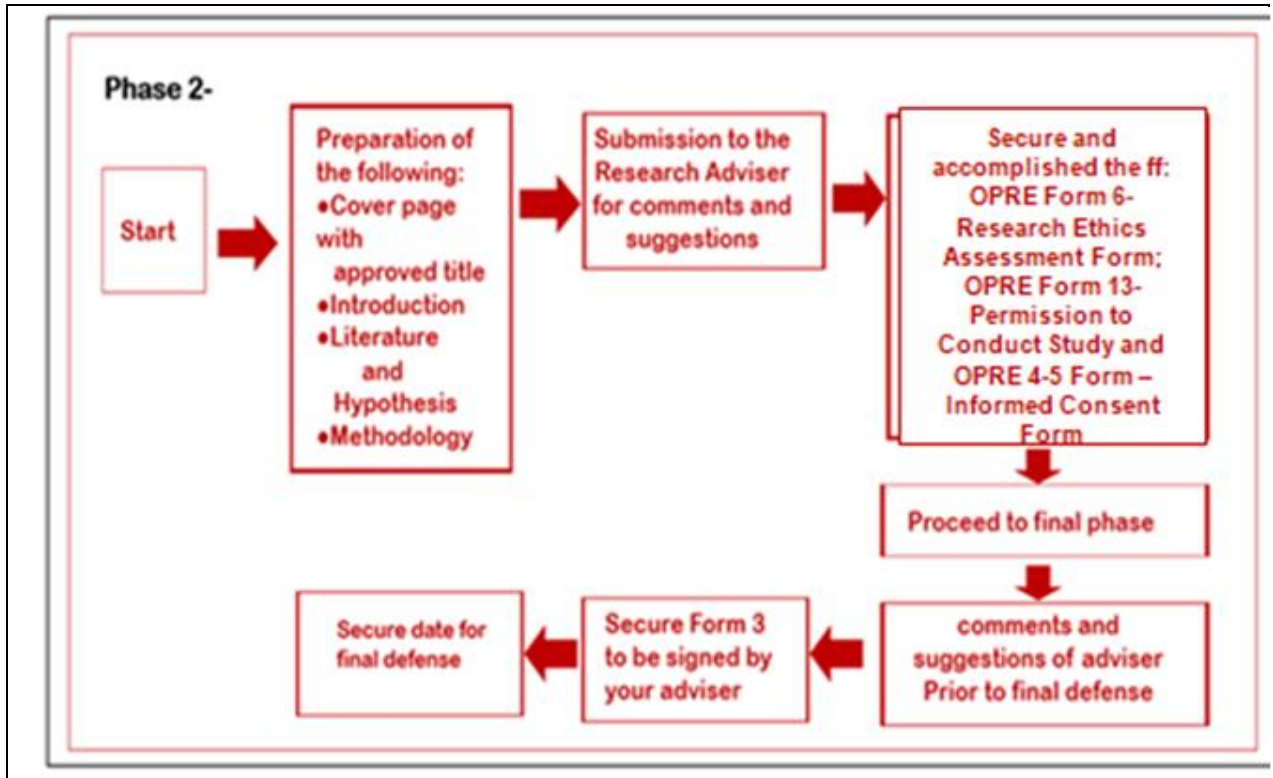
**: Phase 1 – Title Defense**



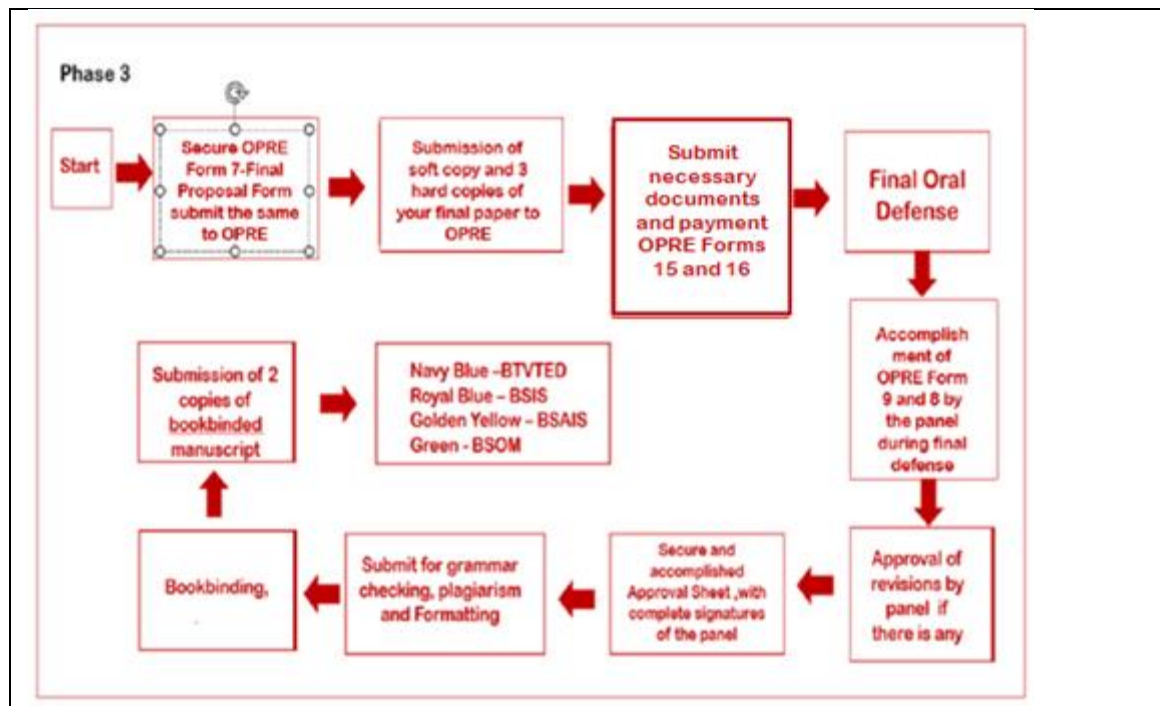


**RESEARCH MANUAL**  
REVISED 2025

**Research 1: Phase 2 – Research Development**



**Phase 3 – Final Oral Defense**





**RESEARCH MANUAL**

REVISED 2025

**Rules in the Conduct of Research Defenses**

1. Student researchers who failed during the first appearance of the defense be it Title Defense, Title Proposal and Final Orals shall only be given a Re-Defense ONCE.
2. Re-Defenses shall be scheduled three (3) days after the day of the defense.
3. Student researchers who pass the Title Defense shall be provided with a Research Adviser aligned to the research discipline. Student shall accomplish the Thesis Advising Form and submit to the Dean's Office.
4. Student researchers who pass the Title Proposal shall be given ten (10) working days to submit the approved manuscript and accomplish the Final Proposal Approval Form. For Final orals, the students shall be given fifteen (15) working days to submit the hardbound, softcopy of the journal format, and video documentation to the Dean's/Principal's Office.

**Research 2: Phase 6 – ISSUANCE OF FINAL GRADE AND CLEARANCE to Students**

- Research Instructors are responsible for monitoring, recording, and issuing the final grades of students until the research manuscript is submitted to the ORE.

**Grading System**

Research classes shall follow the grading system for Undergraduate students. Students are graded based on the substance/outcomes, compliance of student research activities and class performance.

**1. Research 1**

<b>Prelim Period</b> a. Class attendance and behavior 10% b. Written Exam 20% c. Performance Tasks 30% d. Title Defense compliance 40% <b>TOTAL 100%</b>		<b>Semi-Final Period</b> a. Adviser's Rating 30% b. Final Proposal 70% <b>TOTAL 100%</b>	
<b>Midterm Period</b> a. Class attendance and behavior 10% b. Written works 20% c. Adviser's Rating 20% d. Literature Review and Hypothesis Review compliance 50% <b>TOTAL 100%</b>		<b>Final Period</b> a. Performance Tasks 30% b. Adviser's Rating 30% c. Ethics Review Compliance 40% <b>TOTAL 100%</b>	

**2. Research 2**

<b>Prelim Period</b> a. Adviser's Rating 30% b. Compliance to scheduled research study targets 70% <b>TOTAL 100%</b>		<b>Final Period</b> a. Final Oral Defense - Substantiality of the study 30% - Performance of the research 50% Study presentation (i.e. Audio-video presentation, expertise, etc.) - Publishable 20% <b>TOTAL 100%</b>	
<b>Midterm Period</b> Adviser's Rating 30% Compliance to scheduled research study targets 40% Final research quality assurance result 30% <b>TOTAL 100%</b>			



## **RESEARCH MANUAL**

REVISED 2025

### **Grading System Policy**

1. **Research Instructors.** Criteria with no asterisks means the instructor will provide the grade. And shall consolidate the grades from other sources
2. **Adviser's Rating.** Shall be provided by the research adviser based on individual performance of the student using the **Student Research Monitoring** instrument.
3. \*Grades are based on the score sheet/ assessment form of which the instructor will consolidate from the

**Technical Panel** duly approved by the **Technical Panel Chairman** ratings.

**NOTE:** Computation of grades shall be followed: number of **YES** divided by number of items times 30 plus 70. Submission of grades to the Research Instructors shall be five (5) working days after the scheduled proceedings.

### **Standard Honorarium for Thesis Adviser and Oral Defense Panel of Examiners**

- A. The following honoraria shall be remitted by the thesis candidates to their research instructor prior to the thesis final oral defense.
- B. The research subject instructor should then remit the honoraria to the respected adviser and members of the oral defense panel right after the oral defense. The acceptance of the payment from students up to the forwarding of honoraria to the adviser and members of the panel must be properly documented for transparency in collection and liquidation activities. Each group should attach to their final paper the accomplishment report/monitoring sheet that contains the thesis related consultation details (e.g. dates and action taken both by adviser and advisees. This will justify payment for the adviser and panel of examiners. Likewise, this will serve as proof of the effort exerted by the advisees.

**Note: Since each bachelor program only requires ONE THESIS, no expenses, including consultation, adviser, and oral defense fees, will be charged for lower year research projects (BVTED-TR313, BSIAS-AReM313, BSIS-IS-421). AND Instructor shall not require students with bounded copies.**



**RESEARCH MANUAL**

REVISED 2025

**RESEARCH FEE (BTVTD:TR323, BSOM:IRES313, BSAIS: AISR416, BSIS: ISCAP2-423)**

Description	Amount
Adviser's honorarium	700.00
Final Defense Panels' Honorarium for the three (3) Members per group: Chairman Members (2)	1,500.00 (P500.00 each)
Plagiarism Checker/grammarian (c/o ORE)	300.00
<b>Total per group</b>	<b>P2,500.00</b>
Thus, payment per student would be:	
➤ With 5 members - P500.00	
➤ With 4 members - P625.00	
➤ With 3 members - P833.00	
<b>*** Other services (optional)</b>	
1. <b>Bookbinding (Two copies: 1 Library &amp; 1 student/group) - P500.00</b>	
2. <b>Printing Service:</b> As part of the ORE's extension services for students, facilities will be available for those who need them. Students should provide bond paper based on the number of pages required per group and a set of ink per section.	

- I. Statistical Treatment, Proofreading and Detecting Plagiarism, and Bookbinding.
  - A. The thesis candidates must seek assistance from Office of Research, Extension (ORE) in terms of grammar and plagiarism checking. This will ensure that the quality of the output and all legal aspects in producing research papers are well taken care of. However, for statistical treatment, students may do it by themselves or they could seek help from a statistician outside the institution.
  - B. The Institution requires two (2) hardbound copies of the final manuscript; thus, the Office of Research and Extension (ORE) can assist with printing and bookbinding of the final paper.
- II. Preparing for Defense
  - A. The final thesis defense may only be scheduled after the students get the approval of their thesis adviser, demonstrated by having the adviser's signature on the approval sheet. Preparation of the approval sheet following the standard department format is the responsibility of the student.
  - B. It is the responsibility of the students to coordinate with the panel of critics/examiners and their thesis adviser regarding the defense schedule, submission of paper, and other matters relating to the thesis.
  - C. The thesis manuscript must be submitted at least *three (3) days* before the scheduled oral defense to the examiners.
  - D. Students must be punctual for their final thesis defense. Failure to appear on time could mean a deferment or a failing mark. Presentation of the thesis must be done in PowerPoint or similar software. Students are expected to be in business attire during their defense.



---

**RESEARCH MANUAL**

REVISED 2025

**III. Oral Defense**

- A. The final thesis defense may push through even if one of the examiners is not present, provided that the thesis adviser and the chairman of the panel are present. The absent examiner is however required to submit his/her comments on the thesis to the chairman of the panel.
- B. The thesis defense shall have a maximum duration of two hours, 30 minutes of which is allotted on the presentation. The chairman of the panel shall gather comments and suggestions of the panel, and provide a copy to the students to guide them with their revisions.
- C. Students must ensure that the comments and suggestions given by the panel during the defense are incorporated into the thesis.
- D. Oral/ final defense has to be recorded.
- E. The students provide meals for the panel at their discretion. If they decide to provide meals, it is best to use class funds and keep the amount limited.

**IV. PLAGIARISM, GRAMMAR CHECKING and PRINTING OF MANUSCRIPT**

- 1. After the final defense, researchers must do the revisions based on the proceedings of the panel.
- 2. Once revised, it must be submitted to the adviser for approval.
- 3. With the approval of the adviser, thesis will be forwarded to the ORE for plagiarism and grammar checking. Once the paper is forwarded to the ORE, the officer will submit grades to the College registrar otherwise non-submission will be marked INC.
- 4. The group representatives will be notified once the paper is Approved for printing.
- 5. All approval sheet will be submitted to the ORE to be attached to manuscript for bookbinding.
- 6. As part of the ORE's extension services for students, printing service facilities will be available for those who need them. Students should provide bondpaper based on the number of pages required per group and ink per section. The ORE may also extend their support in outsourcing for the book binding of their theses.



---

## **RESEARCH MANUAL**

REVISED 2025

### **REFERENCES:**

Bulacan Polytechnic College ACADEMIC COUNCIL RESOLUTION No.: 002, s. 2020-2021. MODIFIED  
GRADING SCHEME FOR 1st SEMESTER SCHOOL YEAR 2020-2021

Commission on Higher Education Memorandum Order (CMO); CMO-No.-79-s.-2017; CMO-30-s-  
2017, CMO-No.-56-s.-2016, CMO-No.25-s2015, CMO-No.26-s2001

Department of Education Order: DO\_s2022\_024–DepEd; DO\_s2020\_56

### **APPENDICES**

- OPREFORM1-RESEARCH TITLE EVALUATION FORM
- OPREFORM2-THESIS ADVISING FORM
- OPREFORM3-RESEARCH ADVISER'S CERTIFICATION
- OPREFORM4-5-INFORMED CONSENT FORM
- OPREFORM6-RESEARCH ETHICS ASSESSMENT FORM
- OPREFORM7-FINAL PROPOSAL FORM
- OPREFORM8-FINAL DEFENSE & FINAL MANUSCRIPT ASSESSMENT FORM
- OPREFORM9-MINUTES OF THE PROCEEDINGS SHEET
- OPREFORM10-APPROVAL SHEET
- OPREFORM11-CONSULTATION FORM
- OPREFORM12-Researcher's Feedback
- OPREFORM13-PERMISSION TO CONDUCT STUDY
- OPREFORM14-RESEARCH TIME LINE FORM
- OPREFORM15-SERVICE AGREEMENT FOR GRAMMAR AND PLAGIARISM CHECKING
- OPREFORM16-RESEARCH FEE-ACKNOWLEDGEMENT RECEIPT
- OPREFORM17-GUIDE TOOL
- OPREFORM18.1-ACTION RESEARCH APPLICATION
- OPREFORM18.2-ACTION RESEARCH PROPOSAL
- OPREFORM18.3-ACTION RESEARCH WORKPLAN
- OPREFORM19-A.R.EVALUATION TOOL-Development and Validation of Workbook



**BULACAN  
POLYTECHNIC  
COLLEGE**

**OFFICE OF THE VICE PRESIDENT FOR PLANNING, RESEARCH AND EXTENSION**

---

## **RESEARCH MANUAL**

**REVISED 2022**

### **RESEARCH EDITORIAL BOARD:**

**MS. JHOLIENA LYNN C. MANALO, LPT**  
Research Officer

**Dr. EDGARDO C. CASTRO**  
Research Officer

**Dr. MARIA ERICA S.D. DUMLAO**  
Institutional Research Consultant

**DR. ERLINDA P. VILLAMORAN**  
Institutional Research Consultant/Statistician

**DR. JENE T. SOTTO, LPT**  
Vice-President for Planning, Research and Extension

**VICTORIA M. SISON, MaEd**  
OIC- Office of the College President



**BULACAN  
POLYTECHNIC  
COLLEGE**

---