



COURSE SYLLABUS
RES 421 Introduction to Research
2nd Semester SY 2018 - 2019

RSU VISION

Romblon State University as a premier institution of higher education in the MIMAROPA region for a globally competitive Province of Romblon.

RSU MISSION

The Romblon State University is committed to:

- 1) Provide advanced education, higher technological and professional instruction.
- 2) Provide training in agriculture and fishery, for science and technology, education, arts, agriculture, and other relevant fields of study.
- 3) Undertake research and extension services.
- 4) Provide progressive leadership in its areas of specialization.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

The Civil Engineering Program Educational Objectives and Relationship to RSU Mission:

Graduates of the Civil Engineering program are expected to attain or achieve the following Program Educational Objectives 3 - 5 years of graduation:	MISSION			
	1	2	3	4
1) Attain technical and managerial skills in planning, design, construction, operation, management and maintenance of the built environment and global infrastructures and utilizing their skills to analyze and design systems, specify project methods and materials.	√	√	√	√
2) Establish a technical expertise and become a total engineer utilizing his knowledge in arts, sciences and communication skills in oral, written, visual and graphic modes when working as a team members or leaders, so they can actively participate in their communities and their profession.	√	√	√	√
3) Establish an understanding of professionalism, ethics quality performance, public policy, safety, and sustainability that allows them to be professional leaders and contributors to society when solving engineering problems and producing civil engineering solutions through research and development.			√	√
4) Initiate an active program of life-long learning, including studies leading to professional licensure or an advanced degree in engineering that provides for continued development of their technical abilities and management skills and attainment of professional expertise.			√	√

COURSE INFORMATION:

Course Code: RES 411

Course Title: Introduction to Research

Course Description: This course covers the basic stages and processes to undertake a research study, particularly in writing up a research paper proposal or an undergraduate thesis proposal. It includes the basic concepts,

principles, procedures and methods of a research and thesis writing, as well as the content and structure of a thesis proposal.

Credit Units	3 units
Lecture hours	3
Laboratory hours	0
Pre-requisite	100% Fourth year standing

STUDENTS OUTCOMES (SO)

Upon completion of the program, the Romblon State University Civil Engineering students will demonstrate:	PEO			
	1	2	3	4
a) An ability to apply knowledge of mathematics, physical sciences, engineering sciences to the practice of civil engineering.	√	√	√	√
b) An ability to design and conduct experiments, as well as to analyze and interpret data.	√	√	√	
c) An ability to design, builds, improve, and install systems or processes which meet desired needs within realistic constraints.	√	√	√	√
d) An ability to work effectively in multi-disciplinary and multi-cultural teams.			√	√
e) An ability to recognize, formulate, and solve civil engineering problems.	√	√	√	
f) An understanding of the effects and impact of civil engineering projects on nature and society, and of the civil engineers' social and ethical responsibilities.	√	√	√	√
g) Specialized engineering knowledge in each applicable field, and the ability to apply such knowledge to provide solutions to actual problems.	√	√	√	√
h) An ability to effectively communicate orally and in writing using the English language.	√	√	√	√
i) An ability to engage in life-long learning and an acceptance of the need to keep current of the development in the specific field of specialization.			√	√
j) An ability to use the appropriate techniques, skills and modern engineering tools necessary for the practice of civil engineering.	√	√	√	
k) Knowledge of contemporary issues.			√	√

Course Outcomes (Co) For Introduction to Research (Subject) in relation to Student Outcomes

Course Outcomes(COs) : At the end of the course, the student will be able to:		Student Outcomes										
		a	b	c	d	e	f	g	h	i	j	k
CO-1	Explain the importance of conducting a research and its basic components of the research process								E			
CO-2	Identify the different types and classification of research; and research design, sampling design, research instruments, data processing/statistical tools, and types of data analysis/interpretation		E	E					E		E	
CO-3	Conduct the review of literature using online and library sources, including proper citation and referencing using the American Psychological Association (APA) style								E			
CO-4	Undertake or write a research paper proposal which covers Chapter 1: Introduction, Chapter 2: Literature Review and Chapter 3: Methodology		E	E	D		D	D	D		E	

Note: I - An introductory course to an Outcome
 E - Enabling
 D - Demonstrate

LEARNING PLAN

Week	No. of hours	Topic	Satisfied CO	Teaching-Learning Activities	Assessment Technique
1	1	Orientation Discussion of VMGO Discussion of Course Outline and Syllabus Class Policies and Requirements		Introduction, multi-media presentation, Familiarization of the website: www.rsucivilengineering.weebly.com Handouts and other reading/reference materials will be uploaded in the website; Browsing of relevant online resources	
	2	Meaning and Characteristics of Research Importance/Relevance of Conducting a Research Coverage of the Undergraduate Thesis (Contents/Chapters)	CO-1	Handouts and other reading/reference materials are downloaded from the website. Handouts are also for available during the class for students to photocopy Guidelines for Assignment	Recitation Assignment
2	2	Components of the Research Process	CO-1	Review of previous topics Guidelines for Assignment and Group Work	Recitation Assignment Quiz
	1	Research Problem and Objectives Theoretical and Conceptual Frameworks	CO-2	Review of previous topics; Discussion on the Students' Feedbacks on Assignment and Group Work outputs	Recitation
3-4	6	Review of Related Literature	CO-3 CO-4	Review of previous topics; Guidelines for Assignment and Group Work outputs	Recitation Assignment Quiz Exercises
5	3	Research Instrument and Design	CO-2	Review of previous topics; Feedbacks on Assignment and Group Work outputs	Recitation Assignment
6-7	6	Data Collection, Sampling, Data Processing and Statistical Analysis, and Data Interpretation	CO-2	Review of previous topics; Guidelines for Assignment and Group work outputs	Recitation Assignment Exercises Quiz
8-9	6	Research Proposal/Thesis Proposal Writing	CO-2 CO-3 CO-4	Review of previous topics; Feedbacks on Assignment and Group work outputs	Recitation Exercises Assignment Group Work
9	MIDTERM EXAMINATION				
10-17	24	Writing-up of Chapters 1, 2 and 3	CO-1 CO-2 CO-3 CO-4	Consultation and Revision of the Proposal	Group Work Progress Report
18	FINAL EXAMINATION ORAL PRESENTATION/TITLE DEFENCE				
19	SUBMISSION OF FINAL THESIS PROPOSAL				

COURSE REQUIREMENTS

1. Attendance
2. Class participation
3. Assignments
4. Short and long quizzes
5. Major examination
6. Group Work

COURSE POLICIES

- Attendance is necessary for each student to obtain maximum benefits for instruction. Eighty percent (80%) of the total required hours must be attended for each semester.
- None wearing of complete uniform is considered no attendance credit and will not be allowed to take examinations or tests/ quizzes.
- There will be three or four long exams given during the semester. Make-up exams will be given for missed exams at the discretion of the instructor and only for excused absences (university approved absences).
- Major exams (Mid-term and Final) will be given at the time prepared by the College. All students must take the major exams.
- Projects and assignments must be submitted on time. Late submission will not be accepted, it must be turned in at the beginning of class. Projects and assignments must be in acceptable engineering form including a problem statement, labeled drawings of the system considered and all equations and units must be shown or the problem will not be graded.
- Quizzes will be given on a random basis, sometimes announced ahead of time and others will be unannounced. Make-up quizzes will be given only for excused absences.
- Special examination is only given for excused absences. Excuse letter duly signed by the parents or guardian or a medical certificate (in case of sickness) is required.
- Students without calculator will not be allowed to take examinations. If table and charts are needed, it is also a requirement.
- **Students are required to have a notebook for the subject.** It is expected that all students will take notes during class and will study these notes. Handouts should be downloaded or photocopied. Assignments will be handwritten in the notebook.
- No sharing calculators during tests, quizzes, etc. No electronic gadget, computers, etc. during a quiz or a test. Only a calculator may be used during a test or a quiz.
- Cell phones are allowed, provided, it must be on silent mode, must not be used during class hours except during extreme necessities, and must be off during tests and examinations.
- Group studying and peer teaching is encouraged to enhance the knowledge and skills.
- Any form of cheating will not be tolerated.
- **Plagiarism is not tolerated in the preparation of written reports, thus proper citation and referencing are necessary.**

STUDENTS WITH SPECIAL NEEDS

Students who have any disability that might affect their performance in the class are encouraged to speak with the instructor early in the semester.

COURSE GRADING SYSTEM

Grading will be as follows:

Attendance/Class Participation	5%
Assignment	5%
Quiz	15%
Group Work	35%
Midterm and Final Examinations	40%

Methods of Computation

Absolute zero shall be used in all examinations and quizzes.

Percentile shall be used in recording grades when evaluating students using the formula below.

$$Final\ Grade = \frac{Midterm\ Grade + Final\ Term\ Grade}{2}$$

Grades Equivalent

<i>Rating</i>	<i>Grade</i>
96 - 100	1.00
91 - 95	1.25
86 - 90	1.50
81 - 85	1.75
76 - 80	2.00
71 - 75	2.25
66 - 70	2.50
61 - 65	2.75
60	3.00
Conditional	4.00
Below 60	5.00

CONDITIONAL is not a grade. It is given to students that lacks necessary requirements and therefore, must be accomplished before the end of that semester to obtain a grade. INCOMPLETE (INC) is reflected in the university online grading/report system as a mark given to the students for major compliance in the subjects which requires a Completion Form from the Registrar to be filled-up and accomplished within a year, otherwise noncompliance is a final grade of 5.0. WITHDRAW (W) is also reflected in the online grading/report system to indicate that the student withdraw or did not finish/complete the subject enrolled.

LIST OF RESOURCES

- 1 Albert, J. R. (2008). *Basic Statistics for the Tertiary Level*, Padua, Patungan & Marquez (eds), Manila: Rex Book Store.
- 2 Asaad, A. S. (2008). *Statistics Made Simple for Researchers*, Manila: Rex Book Store, Manila.
- 3 Castillo, F. S. (2007). *Research Education and Scientific Writing*, Latest Edition, Manila: Booklore Publishing Corporation
- 4 Finkelsten, L. Jr (2005). *Pocket Book of Technical Writing for Engineers and Scientists*, 2nd Edition, McGraw-Hill (Asia)
- 5 Fraenkel, K. R., Wallen, N. E., and Hyun, H. H. (2013). *How to Design and Evaluate Research in Education*, 8th Edition, New York, USA: McGraw-Hill International Edition
- 6 Frankfort-Nachmias, C., and Nachmias, D. (1997). *Research Methods in the Social Sciences*, 5th Edition, London: Arnold.
- 7 Fraenkel, K. R., and Wallen, N. E. (2010). *How to Design and Evaluate Research in Education*, 7th Edition, New York, USA: McGraw-Hill International Edition

- 8 Jha, A. S. (2011). *Research Methodology*, Delhi, India: APH Publishing Corporation
- 9 Mustafa, A. (2010). *Research Methodology*, India: AITBS Publishers
- 10 Palar-Calmorin, L, & Calmorin, M. A. (2007). *Research Methods and Thesis Writing*, 2nd edition, Manila: Rex Book Store
- 11 Sanchez, C. A. (1997). *Methods Techniques of Research*, 3rd Edition, Manila: Rex Book Store
- 12 Tayie, S. (2005). *Research Methods and Writing Research Proposals*, Pathways to Higher Education Project, Center for Advancement of Postgraduate Studies and Research in Engineering Sciences, Faculty of Engineering – Cairo University
- 13 Trinidad, J.E (2018). *Researching, Philippine Realities: A Guide to Qualitative, Quantitative, and Humanities Research*, Quezon City: Ateneo De Manila University Press

INPUTS/REMARKS:

Prepared by:

Reviewed by:

Approved by:

Noted by:

ENGR. REYNALDO P. RAMOS, PhD
Associate Professor

ENGR. JUNREY D. GARCIE
Chairperson, EE Department

DR. BILSHAN F. SERVAÑEZ
Dean, CET

DR. ELVIN F. GAAC
VPAA