



Republic of the Philippines  
SULTAN KUDARAT STATE UNIVERSITY  
Isulan Campus, Sultan Kudarat  
College of Industrial Technology



## ET 211 – RESIDENTIAL WIRING SYSTEMS

### UNIVERSITY VISION

A leading University in advancing scholarly innovation, multi-cultural convergence, and responsive public service in a borderless Region.

### UNIVERSITY MISSION

The University shall primarily provide advanced instruction and professional training in science and technology, agriculture, fisheries, education and other related fields of study. It shall also undertake research and extension services, and provide progressive leadership in its areas of specialization.

### UNIVERSITY STRATEGIC GOALS

- a. Deliver quality service to stakeholders to address current and future needs in instruction, research, extension, and production
- b. Observe strict implementation of the laws as well as the policies and regulations of the University
- c. Acquire with urgency state-of-the-art resources for its service areas
- d. Bolster the relationship of the University with its local and international customers and partners
- e. Leverage the qualifications and competences in personnel action and staffing
- f. Evaluate the efficiency and responsiveness of the University systems and processes

### INSTITUTIONAL OUTCOMES (IO)

A graduate of the BlinTech program can:	INSTITUTIONAL OUTCOMES (IO)						
	a	b	c	d	e	f	g
a. Analyze broadly defined industrial technology processes by using analytical tools that enhance creativity, innovativeness, and intellectual curiosity to improve methods,	✓	✓				✓	

processes, and systems that meet the industry standards;							
b. Design and implement broadly defined industrial systems, components, products, or processes to meet specific industry needs with proficiency and flexibility in the area of specialization in accordance with global standards;	✓	✓		✓		✓	
c. Apply appropriate techniques, resources, and state-of-the-art industrial technology tools to meet current industry needs and use these modern tools and processes to improve and increase entrepreneurial activities upholding the safety and health standards of business and industry;	✓		✓	✓	✓	✓	
d. Communicate with diverse groups of clientele the appropriate cultural language with clarity and persuasion, in both oral and written forms, including understanding and giving of clear instructions, high comprehension level, effectiveness in delivering presentations and writing documents, and articulating technological innovation outputs;	✓	✓	✓	✓	✓	✓	
e. Develop leadership and management skills in a team-based environment by making informed decisions, keeping the team motivated, acting and delegating responsibility, and inspiring positive changes in the organization by exercising responsibility with integrity and accountability in the practice of one's profession;	✓	✓	✓	✓	✓	✓	
f. Practice the moral responsibilities of an industrial technologist to manage and balance wider public interest and uphold the norms and safety standards of the industrial technology profession;				✓	✓	✓	✓
g. Demonstrate enthusiasm and passion for continuous personal and professional development in broadly defined industrial technology and effecting positive changes in the entrepreneurial and industrial endeavor; and	✓	✓	✓	✓	✓	✓	✓
h. Recognize the need for, and an ability to engage in lifelong learning.	✓	✓	✓	✓	✓	✓	✓

- 1 COURSE CODE ET 211  
 2 COURSE TITLE Residential Wiring Systems  
 3 PREREQUISITE ET 121, ET 122, ET 123  
 4 CREDITS 3 units

### 5 COURSE DESCRIPTION

This course introduces the principle of electrical wiring systems its applications, installation troubleshooting and repair. Student will develop practical skills in design, testing and problem solving related to electronic communication circuits in practical activities and design requirements in an electrical installation.

### 6 COURSE LEARNING OUTCOMES (CLO) AND ITS RELATIONSHIPS TO PROGRAM OUTCOMES

#### Course Learning Outcomes (CLO)

#### Program Outcomes

At the end of the course, a student can:

- a. Understand SKSU-VGMO, Classroom Policies, Course Overview, Course Requirements and Grading System;

- b. Describe the types of residential wiring.
- c. Analyze the methods of wiring installation.
- d. Apply the types of wiring materials.
- e. Utilize the tools and equipment.
- f. Identification of Measuring instruments.
- g. Demonstrate the functionality of troubleshooting, repair and maintenances.
- h. Construct and analyze safety precautions in the workplace.

## 7 COURSE CONTENTS

WEEK	CONTENT	INTENDED LEARNING OUTCOMES (ILOs)	TEACHING AND LEARNING ACTIVITIES (TLA)	OUTCOMES-BASED ASSESSMENT (OBA)	COURSE LEARNING OUTCOMES (CLOS)
1	<b>Course Orientation</b> SKSU VMGO, Classroom Policies, Course Overview, Course Requirements, Grading System	At the end of the week, the student can: a. Discuss the University's VMGO, classroom policies, course overview, requirements, and grading system	Discuss the VMGO of the University, the classroom policies, scope of the course, course requirements and grading system	a. Participation in discussions	abcdefg
2	<b>Types of Residential Wiring</b> a. Fundamentals of the types of residential wiring. b. Explain the applications of each wiring type. c. Compare and contrast different wiring methods. d. Describe safety regulations associated with each.	At the end of the week, the students can: a. Identify different types of residential wiring. b. Explain the applications of each wiring type. c. Compare and contrast different wiring methods. d. Describe safety regulations associated with each.	a. Lecture on types of residential wiring b. Practical exercises identifying different wiring types c. Group Discussion d. Case studies of wiring safety incidents e. Activity 2.1 Project of Residential wiring	a. Quiz b. Practical Exam (wiring diagram interpretation) c. Case Study Analysis d. Report (wiring diagram creation) e. Participation	abcdefg
3	<b>Methods of wiring installation</b>	At the end of the week, the students can: a. Identify different methods of wiring installation; b. Explain the principles behind each method;	a. Lecture; b. Laboratory work (hands-on wiring); c. Problem-solving activities; d. Practical demonstration of wiring techniques; e. Troubleshooting simulations	a. Practical Exam (wiring installation); b. Quiz; c. Troubleshooting activity; d. Report (wiring installation process);	abcdefg

b. Describe the types of residential wiring.	✓	✓	✓	✓	✓	✓	✓
c. Analyze the methods of wiring installation.	✓	✓	✓	✓	✓	✓	✓
d. Apply the types of wiring materials.	✓	✓	✓	✓	✓	✓	✓
e. Utilize the tools and equipment.	✓	✓	✓	✓	✓	✓	✓
f. Identification of Measuring instruments.	✓	✓	✓	✓	✓	✓	✓
g. Demonstrate the functionality of troubleshooting, repair and maintenances.	✓	✓	✓	✓	✓	✓	✓
h. Construct and analyze safety precautions in the workplace.	✓	✓	✓	✓	✓	✓	✓

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3	<b>Methods of wiring installation</b>	At the end of the week, the students can: a. Identify different methods of wiring installation; b. Explain the principles behind each method;	a. Lecture; b. Laboratory work (hands-on wiring); c. Problem-solving activities; d. Practical demonstration of wiring techniques; e. Troubleshooting simulations	a. Practical Exam (wiring installation); b. Quiz; c. Troubleshooting activity; d. Report (wiring installation process);	abcdefg

- b. Describe the types of residential wiring.
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**COURSE REQUIREMENTS**

1. submit accomplished assignments, and activities;
2. make a PowerPoint presentation, and a written summary of the assigned report;
3. participate actively in all discussion;
4. discuss an assigned topic to report and participate in class discussions; and
5. pass the major exams (midterm and final)

**COURSE POLICIES**

- Attendance:** A student will be marked late if he/she enters the class 5 minutes after start of class period. Any student who comes to class 15 minutes after the scheduled time or always late for three consecutive meetings shall be marked absent.
- Missed work or exam:** Any student who missed to submit a work assignment or to take a test should consult the concerned instructor for immediate compliance.
- Cheating and Plagiarism:** Any student who committed any form of academic dishonesty (e.g., copy-paste plagiarism) shall be given disciplinary action provided in the SKSU Student's Handbook
- Use of Technology:** Cell phones should be turned off while the session is in progress. Using laptops, notebook PCs, smart phones, and tablets shall be allowed only when needed. A scientific calculator (e.g. Casio fx-991ES) shall be utilized in solving.

**9 GRADING SYSTEM AND RUBRICS FOR GRADING**

GRADING SYSTEM	Midterm Grade	Final Term Grade	GRADE	FINAL
Midterm Examination	50%	50%	Final Term Examination	50%
Attendance/ Class Participation	5%	5%	Attendance/Class Participation	5%
Quizzes	5%	5%	Quizzes	5%
Recitation	5%	5%	Recitation	5%
Activity	20%	20%	Activity	20%
Report	15%	15%	Report	15%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>TOTAL</b>	<b>100%</b>

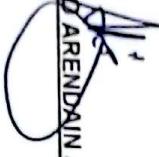
**Materials used:**

- Laptop, PowerPoint presentations, and video clips  
Books, Magazines, Online slides, Teacher-made slides

References:

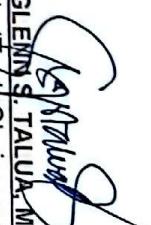
- M. Morris Mano, "Digital Design," 5th Edition, Pearson, 2013.  
John F. Wakerly, "Digital Design: Principles and Practices," 4th Edition, Prentice Hall, 2017.  
R. P. Jain, "Modern Digital Electronics," 4th Edition, Tata McGraw-Hill, 2010.

Prepared:

  
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Reviewed:

  
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Dean, College of Industrial Technology

Noted:

8-11-25-

2025-08-11