

Standing Requirements

## **Outcomes Library**

# **BS in Computer Engineering Technlgy Outcome Set**

#### **OBJ 1: Problem solving skills**

Students will learn problems solving skills.

Outcome	Mapping
Outcome 1.1: Computer systems and networks Students will apply algebra, discrete math, and basic law of physics to build, test, and operate electric circuits, computer systems and	Foundational Studies: IIIa. Quantitative Literacy
networks.	
Outcome 1.2: Computer languages	No Mapping
Students will program in low/high-level computer languages to build microcontroller based applications and digital logic circuits.	
Outcome 1.3: Technical data management	No Mapping
Students will understand database principles and working	

mechanisms for technical data management.

### **OBJ 2: Commanding contemporary tools**

Students will learn how to command contemporary tools.

Outcome	Mapping
Outcome 2.1: Apply stimulation tools	No Mapping
Students will apply simulation tools to verify theoretical design or trouble-shoot potential system problems.	
Outcome 2.2: Analze lab data	No Mapping
Students will analyze lab data using statistical tools.	

#### **OBJ 3: Design skills**

Student will learn design skills.

Outcome	Mapping
Outcome 3.1: Control circuitry	No Mapping
Students will design microcontroller based control circuitry.	
Outcome 3.2: Digital logic circuitry	No Mapping
Students will develop digital logic circuitry using FPGA and HDL.	
Outcome 3.3: Design and implement LAN	No Mapping
Students will design and implement LAN for small business environments.	

#### **OBJ 4: Lab skills**

Students will learn lab skills.

Outcome	Mapping
Outcome 4.1: Plan experiments	No Mapping

Students will plan experiments to collect desired data or

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observations.

Outcome 4.2: Conduct experiments

Students will conduct experiments to truthfully record results

following manual or proposed steps.

Outcome 4.3: Follow saftety procedures

Students will follow safety procedure and lab protocols, handle

equipments with care.

Outcome 4.4: Examine lab results

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Students will examine and interpret lab results to draw conclusions.

### **OBJ 5: Managerial skills**

Students will learn managerial skills.

Outcome	Mapping
Outcome 5.1: Develop work plans	No Mapping
Students will develop work plans with clearly defined phased goals and timeline.	
Outcome 5.2: Follow work plan	No Mapping
Students will follow work plan by observing time line and reporting progress.	
Outcome 5.3: Modify schedule	No Mapping
Students will modify schedules based on progress.	

No Mapping

No Mapping

#### **OBJ 6: Ethics awareness**

Students will learn ethics awareness.

Outcome	Mapping
Outcome 6.1: Analyze ethics	No Mapping
Students will analyze ethics issues based on professional ethics codes.	
Outcome 6.2: Technology impact on society	No Mapping
Students will understand technology impact on society.	

## **OBJ 7: Lifelong learning**

Students will learn lifelong learning.

Outcome	Mapping
Outcome 7.1: Professional societies	No Mapping
Students will get involved with professional societies.	
Outcome 7.2: Technological trends	No Mapping
Students will research the latest technological trends in a specific area.	

#### **OBJ 8: Teamwork skills**

Students will learn teamwork skills.

Outcome	Mapping
Outcome 8.1: Individual role and shared duties	No Mapping
Students will understand individual role and shared duties.	
Outcome 8.2: Respect different opinions	No Mapping
Students will listen to others; cooperate with teammates; respect different opinions.	

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# **OBJ 9: Communication skills**

Students will learn communication skills.

Outcome	Mapping
Outcome 9.1: Produce technical documents Students will produce a technical document that is factually correct, and with good logical structure, proper format, citation, and references.	<b>Foundational Studies:</b> 10. Express themselves effectively, professionally, and persuasively both orally and in writing.
Outcome 9.2: Technical document with minimum errors Students will produce a technical document with a minimum of errors in spelling, punctuation, grammar and usage.	<b>Foundational Studies:</b> 10. Express themselves effectively, professionally, and persuasively both orally and in writing.
Outcome 9.3: Communicate in a professional manner Students will communicate in a professional manner, and respond to questions in language that is both concise and commensurate with audience's background.	<b>Foundational Studies:</b> 10. Express themselves effectively, professionally, and persuasively both orally and in writing.

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