ABET to ET- Electronics Discipline SLO Map

ABET SO	ET Electronic Discipline SLO	Measurable Outcomes from annual self-
		assessment report
(1) an ability to	1. Adhere to safety procedures and proper	SLO 1. Measurable Outcome A.1. Demonstrate
apply	electronics fabrication techniques. NOTE: Rework	proper electronics fabrication techniques. NOTE:
knowledge,	is one of these covered techniques.	Rework is one of these covered techniques.
techniques,	2. Identify active and passive components, design,	
skills and	construct, and test various DC and AC circuits to	SLO 2. Measurable Outcome B.1. Identify passive
modern tools of	include filters as well as constructing a Bode Plot of	components.
mathematics,	an amplifier's frequency and phase response.	B.2. Identify active components.
science,	NOTE: Troubleshooting and repair is inherent to this	B.3. Construct, and test various DC and AC circuits.
engineering, and	outcome. All analysis of AC circuits is accomplished	NOTE: Troubleshooting and repair is inherent to
technology to	using complex numbers and the necessary	how these outcomes are accomplished. Since,
solve well-	underlying algebra and trigonometry.	circuits cannot be built and work in a LAB setting
defined	3. Construct, analyze and test the operation of	without problems that must be troubleshot and
engineering	various types of microprocessor/microcontroller	repaired. All analysis of AC circuits is accomplished
problems	circuits. Writing programs to control other devices	using complex numbers and the necessary
appropriate to	is a critical aspect of testing the operation. NOTE:	underlying algebra and trigonometry.
the discipline;	Troubleshooting and repair is inherent to this	
	outcome.	SLO 3. C.1. Construct, analyze and test different
		types of digital circuits. NOTE: Troubleshooting and
		repair is inherent to how these outcomes are
		accomplished. Since, circuits cannot be built and
		work in a LAB setting without problems that must
		be troubleshot and repaired.
		- C.2. Construct, analyze, program and test different
		control systems using
		microprocessor/microcontroller circuits. NOTE:
		Troubleshooting and repair is inherent to how these
		outcomes are accomplished. Since circuits,
		especially ones with programed processors cannot
		be built and work in a LAB setting without hardware
		and software problems that must be troubleshot
		(debugged for software) and repaired.

		For Bench Tech and Defense Contractor
	For Bench Tech and Defense Contractor Tech	Emphasizes.
	Emphasizes.	SLO 5. Measurable Outcome E, where students
	5. Demonstrate common modulation/transmission	demonstrate a working knowledge of common
	methods to including AM, FM, and Pulse	modulation and transmission methods to include
	modulation. NOTE: Troubleshooting and repair is	such as AM, FM and Delta modulation. NOTE:
	inherent to this outcome. All analysis of AC circuits	Troubleshooting and repair is inherent to how these
	is accomplished using complex numbers and the	outcomes are accomplished. Since, circuits cannot
	necessary underlying algebra and trigonometry.	be built and work in a LAB setting without problems
		that must be troubleshot and repaired.
	For Defense Contractor Tech Emphasis.	For Defense Contractor Emphasis.
	5. Demonstrate a working knowledge of common	SLO 5. Measurable Outcome EE. Demonstrate a
	PCs and computer networks. NOTE:	working knowledge of common PCs and computer
	Troubleshooting and repair is inherent to part of	networks. NOTE: Troubleshooting and repair is
	this outcome.	inherent to part of this outcome.
	For Bio-Medical Equip Emphasis.	For Bio-Medical Equip Tech Emphasis.
	5. Characterize the computers/ networks used in	SLO 5. Measurable Outcome F. Demonstrated
	the healthcare industry, demonstrate an ability to	understanding of computers, computer networks
	explain fluid dynamics, common medical	and fluid dynamics along with an understanding of
	terminology, health-care dynamics, and the	medical terminology, health-care dynamics, and the
	fundamentals functional characteristics of the	fundamentals of the functional characteristics of
	human body. NOTE: Troubleshooting and repair	the human body. NOTE: Troubleshooting and
		repair is inherent to part of this outcome.
	is inherent to part of this outcome.	
(2)		
(2) an ability to	1. Adhere to safety procedures and proper	SLO 1. Measurable Outcome A.1. Demonstrate
design solutions	electronics fabrication techniques.	knowledge of safety procedures and proper
for well-defined	2. Identify active and passive components, design,	electronics fabrication techniques.
technical	construct, and test various DC and AC circuits to	
problems and	include filters as well as constructing a Bode Plot of	SLO 2 . Measurable Outcome B.1. Identify passive
assist with the	an amplifier's frequency and phase response.	components.
engineering	3. Construct, analyze and test the operation of	B.2. Identify active components.
design of	various types of microprocessor/microcontroller	B.3. Construct, and test various DC and AC circuits.
systems,	circuits. Writing programs to control other devices	
components, or	is a critical aspect of testing the operation.	SLO 3. C.1. Construct, analyze and test different
processes		types of digital circuits.
appropriate to		
the discipline;		

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		- C.2. Construct, analyze, program and test different
		control systems using
		microprocessor/microcontroller circuits.
	For Bench Tech and Defense Contractor Tech Emphasizes. 5. Demonstrate common modulation/transmission methods to including AM, FM, and Pulse modulation.	For Bench Tech and Defense Contractor Emphasizes. SLO 5. Measurable Outcome E, where students demonstrate a working knowledge of common modulation and transmission methods to include such as AM, FM and Delta modulation.
	For Defense Contractor Tech Emphasis. 5. demonstrate a working knowledge of common PCs and computer networks.	For Defense Contractor Emphasis. SLO 5. Measurable Outcome EE. Demonstrate a working knowledge of common PCs and computer networks.
	For Bio-Medical Equip Emphasis. 5. Characterize the computers/ networks used in the healthcare industry, demonstrate an ability to explain fluid dynamics, common medical terminology, health-care dynamics, and the fundamentals functional characteristics of the human body.	For Bio-Medical Equip Tech Emphasis. SLO 5. Measurable Outcome EE. Demonstrate a working knowledge of PCs and computer networks. .Measurable Outcome F. Demonstrated understanding of computers, computer networks and fluid dynamics along with an understanding of medical terminology, health-care dynamics, and the fundamentals of the functional characteristics of the human body.
(3) an ability to apply written, oral, and graphical	General Education courses for English and Communications.	 English Composition Courses Communication courses on Oral or Business Com.
communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate	4. Demonstrate commitment to quality, timeliness, continuous improvement, professional ethics, and respect for diversity while showing an understanding of the need for and an ability to engage in continuing professional development.	SLO 4. Measurable Outcome D.2. Demonstrate an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature. <i>Note: Assessment based upon final course project in ET228B which requires written and oral reports.</i>

technical		
literature.		
(4) an ability to	2. Identify components, design, construct, and test	SLO 2. Measurable Outcome: B.3. Construct, and
conduct	various circuits to include filters and construct a	test various DC and AC circuits. Courses: ET220B
standard tests,	Bode Plot of an amplifier's frequency response.	and ET228B
measurements,		
and experiments	3. Construct, analyze and test various types of	SLO 3. Measurable Outcomes:
and to analyze	digital circuits and microprocessor/ microcontroller	- C.1. Construct, analyze and test different types
and interpret	circuits. Demonstrate a working knowledge writing	of digital circuits.
the results	programs to control other devices.	0. 2. Construct english an area and test
		- C.2. Construct, analyze, program and test
		different control systems using
		microprocessor/microcontroller circuits.
	5. For the Bench Technician and Defense	SLO 5. Measurable Outcome: E. For Bench and
	Contractor Technician emphases, demonstrate a	Government support Emphases, demonstrate a
	working knowledge of common modulation and	working knowledge of common modulation and
	transmission methods to include such as AM, FM,	transmission methods to include such as AM, FM
	and Pulse modulation.	and Delta modulation. Involves the
		construction, analysis, and testing of AM, FM
		and Delta modulation circuits during ET293B
		Labs.
	5. For the Biomedical Equipment Technician	SIDE Maagurahla Outcomo: E. Ear the Diamodical
	emphasis, characterize the computers/networks	Scubment Emphasis Involves CIT114D Final
	used in the healthcare industry, demonstrate an	Equipment Emphasis. Involves CITIT4B Find
	ability to explain fluid dynamics, common medical	Practical /Project on building and configuration
	terminology, health-care dynamics, and the	a PC's and OS installation and configuration to
	fundamentals functional characteristics of the	include drivers. Along with CIT112B CompTIA
	human body.	Net Plus Labs.
(5) an ability to	4. Demonstrate commitment to quality, timeliness.	SLO 4. Measurable Outcome D.3. Function
function	continuous improvement, professional ethics, and	effectively as a member of a technical team. <i>Note:</i>
effectively as a	respect for diversity while showing an	Based upon teamwork on Labs (teams of 2-3) and
, member of a	understanding of the need for and an ability to	final course project (teams of 3-4).
technical team.	engage in continuing professional development.	

	All Measurable Outcomes from annual self-
	assessment report that depend upon results
	from Labs from the following courses that
	require Lab to be accomplished by Teams of
	two or three members for courses: CIT112B,
	ET132B, ET228B, and ET293B.

The Latest Annual assessment report is available upon request.