

# ENGINEERING TECHNOLOGY: DATA CENTER OPERATIONS SPECIALIZATION, A.A.S.

**Location(s):** LO, MA  
**NOVA Code:** 9684

## Purpose

This program is designed to prepare students for employment in data centers or companies that support data center function as a technician, operator and/or technologist. Coursework will prepare students to earn BICSI Installer 1, Installer 2 (Copper) and Installer 2 (Fiber Optic) industry credentials.

## Transfer Information

Transfer is not the primary purpose of an A.A.S. program, but NOVA has articulation agreements that facilitate the transfer of this and other career-oriented programs to selected senior institutions. Students interested in transfer should contact a counselor or their academic advisor early in their program.

## Two Years

Course	Title	Credits
<b>1st Semester</b>		
ELE 150	A.C. and D.C. Circuit Fundamentals	3
ENG 115	Technical Writing	3
IND 123	Introduction to Lean Manufacturing and Six Sigma	1
IND 137	Team Concepts & Problem Solving	3
MTH 111	Basic Technical Mathematics (or Higher)	3
SAF 130	Industrial Safety OSHA 10	1
SDV 100 or SDV 101	College Success Skills or Orientation to:	1
<b>Credits</b>		<b>15</b>
<b>2nd Semester</b>		
CAD 175	Schematics and Mechanical Diagrams	2
ELE 146	Electric Motor Control	4
ELE 148	Power Distribution Systems <sup>1</sup>	3
ELE 233	Programmable Logic Controller Systems I	3
ENE 108	Intro to Data Center Operations	3
<b>Credits</b>		<b>15</b>
<b>3rd Semester</b>		
CST 126	Interpersonal Communication	3
ELE 189	Data Cabling Communication	3
ENE 228	Building Automation & Energy Management Systems <sup>1</sup>	3
ETR 281	Digital Systems	3
MEC 270	Computation for Engineering Technology	3
<b>Credits</b>		<b>15</b>
<b>4th Semester</b>		
ELE 211	Electrical Machines I	3
ENE 208	Critical Site Operations	3
Humanities/Fine Arts Elective ( <a href="https://catalog.nvcc.edu/general-education-electives/#ge_hum_fa_elect">https://catalog.nvcc.edu/general-education-electives/#ge_hum_fa_elect</a> )		3
Social/Behavioral Sciences Elective ( <a href="https://catalog.nvcc.edu/general-education-electives/#ge_soc_beh_sci_elec">https://catalog.nvcc.edu/general-education-electives/#ge_soc_beh_sci_elec</a> )		3
Select one of the following: <sup>2</sup>		3-4
ELE 250	Fiber Optic Technology	

AIR 121	Air Cond & Refrigeration I
<b>Credits</b>	<b>15-16</b>
<b>Total Credits</b>	<b>60-61</b>

Electives should be chosen with the advice of an academic advisor to meet the requirements of the intended transfer institution.

- <sup>1</sup> ENE 108 Intro to Data Center Operations, ENE 228 Building Automation & Energy Management Systems, ENE 208 Critical Site Operations, ELE 148 Power Distribution Systems are only offered on the Manassas and Loudoun campuses.
- <sup>2</sup> AIR 121 Air Cond & Refrigeration I is offered on the Loudoun and Woodbridge campuses. ELE 250 Fiber Optic Technology is offered on the Loudoun and Manassas campuses.