

**Alternative Energy/Wind Turbine Technology**  
 Associate in Applied Science Degree (Code AAS 15805)  
 Catalog Year 2011-2012

Effective  
 Winter 2011

The Associate Degree Program in Alternative Energy/Wind Turbine Technology prepares you for employment as a wind turbine technician. Duties of a wind turbine technician include operating and maintaining giant wind turbine units, performing mechanical and electrical troubleshooting, as well as repair and preventative maintenance. This technician uses computers and has an understanding of hydraulics, electricity, algebra and meteorology. Working about 250 feet above the ground requires this professional to set aside any fears of heights. Teamwork is key to success in this position where safety and a smooth-running work environment are critical.

**Sem/Cr Hrs**

**General Education Courses**

—	ENG ---	Any Approved College Composition I . . . . .	3/5
—	ENG 113	Technical Communication . . . . .	3
—	LW ---	Any 1 Credit LW Course . . . . .	1
<b>AND</b>			
—	LWA ---	Any 1 Credit LWA Course . . . . .	1
<b>OR</b>			
—	LW ---	Any 2 Credit LW Course . . . . .	(2)
—	LWT 165	Community First Aid . . . . .	1
—*	MTH 119W	Intermediate Algebra . . . . .	4
—*	GEO 103W	Introduction to Meteorology . . . . .	4
—*	PHY ---	Any Approved Physics Course . . . . .	4/5
—	POL ---	Any Approved American Government Requirement . . . . .	3/4
<b>SUBTOTAL</b>			<b>24/28</b>

**Basic Program Requirements**

—*	CST 133W	Computer Concepts & Competencies . . . . .	4
—*	CST 161	Networking Fundamentals . . . . .	3
—*	ET 110W	DC Electrical Fundamentals . . . . .	3
—*	ET 120	AC Electrical Fundamentals . . . . .	3
—*	ET 122	Programmable Logic Controllers . . . . .	4
—*	ET 130	Advanced Electrical Applications . . . . .	3
—*	ET 140	Fundamentals of Electrical Motors and Motor Controls . . . . .	3
—*	MT 151	Power Transmission . . . . .	3
—*	MT 161	Industrial Rigging . . . . .	2
—*	MT 220	Hydraulics & Pneumatics I . . . . .	3
<b>SUBTOTAL</b>			<b>31</b>

**Wind Turbine Technology Courses**

—*2	WTT 100	Introduction to Wind Energy . . . . .	3
—*2	WTT 110	Climb Safety, Tower Rescue, and OSHA 10 Safety Training . . . . .	2
—*2	WTT 120	Wind Turbine Mechanical Systems . . . . .	3
—*2	WTT 215	Wind Turbine Blade Design . . . . .	2
—*2	WTT 230	Wind Turbine Schematics . . . . .	1
—*2	WTT 240	Power Generation, Transmission, and Distribution . . . . .	3
—*2	WTT 280	Fundamentals of Data Acquisition . . . . .	2
<b>SUBTOTAL</b>			<b>16</b>
<b>TOTAL CREDITS REQUIRED FOR ASSOCIATE DEGREE</b>			<b>71/75</b>

**NOTATIONS:**

\* A "C" minimum grade is required in each asterisked course.

1. Student is responsible for equipment, tools and gear as required. Cost may exceed \$200.
2. You will be required to get permission before enrolling in this course. Students will be admitted into the WTT sequence courses in groups of 8 students. These courses may be offered off-site and may require travel out of state. The application must be submitted to the Alternative Energy/Wind Turbine Technology Program Coordinator between midterm and the last day of the semester in which you will complete your prerequisites. Prerequisite courses are: ET 110W, ET 120, MT 220, MTH 119, and any approved PHY course, or transfer equivalents. Forms are available online or in the Counseling and the Registrar's Offices. Contact the Technical Trades and Manufacturing division at 989-686-9258 for more information.
3. File an application for an associate or dual degree and/or certificate with the Registrar's Office at least three months before the end of your final semester of course work. See current catalog for other graduation requirements.
4. Delta College reserves the right to modify curriculum requirements.

"THE GRADUATION AUDIT WILL BE IN COMPLIANCE WITH THE GUIDELINES IDENTIFIED IN THE COLLEGE CATALOG"

**Suggested Sequence for Coursework**

<b>FIRST YEAR</b>			<b>SECOND YEAR</b>		
<u>Fall</u>			<u>Fall</u>		
ENG 111	Any Approved College Comp I.....	3	ET 122	Programmable Logic Controllers.....	4
LWT 165	Community First Aid .....	1	ET 130	Advanced Electrical Applications .....	3
MT 151	Power Transmission .....	3	CST 133W	Computer Concepts & Competencies .....	4
MTH 119	Intermediate Algebra .....	4	GEO 103	Introduction to Meteorology.....	4
PHY 101	Applied Physics .....	4		Subtotal.....	15
	Subtotal .....	15			
<u>Winter</u>			<u>Winter</u>		
ET 110W	DC Electrical Fundamentals .....	3	ET 140	Fundamental of Electrical Motors and Motor Controls .....	3
ET 120	AC Electrical Fundamentals.....	3	MT 161	Industrial Rigging .....	2
POL 103	American Government.....	3	ENG 113	Technical Communication .....	3
MT 220	Hydraulics & Pneumatics I.....	3	LW ____	Lifelong Wellness .....	1
	Subtotal .....	12	LWA ____	Lifelong Wellness Activity.....	1
			CST 161	Networking Fundamentals.....	3
				Subtotal.....	13
<u>Spring/Summer</u>			<u>Spring/Summer</u>		
WTT 100	Introduction to Wind Energy.....	3	WTT 215	Wind Turbine Blade Design.....	2
WTT 110	Climb Safety, Tower Rescue & OSHA 10.....	2	WTT 230	Wind Turbine Schematics .....	1
WTT 120	Wind Turbine Mechanical Systems.....	3	WTT 240	Power Generation, Transmission and Distribution.....	3
	Subtotal .....	8	WTT 280	Fundamentals of Data Acquisition.....	2
				Subtotal.....	8
				TOTAL CREDITS.....	71

The above suggested sequence is subject to availability of courses and requires that all prerequisites for suggested courses have been met successfully.