

**PROGRAM REVIEW STATUS REPORT**

**PROGRAMS: ELECTRONIC TECHNOLOGY: COMPUTER SYSTEMS OPTION  
ELECTRONIC TECHNOLOGY**

Date of update March 20, 2014  
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<b>IMPROVEMENT ACTIVITIES AND RESOURCE REQUESTS</b>			<b>STATUS OF ACTIVITIES AND REQUESTS</b>	
<b>DATE RECORDED</b>	<b>ACTIVITY OR RESOURCE REQUEST</b>		<b>DATE OF STATUS REPORT</b>	<b>STATUS</b>
<b>ELECTRONIC TECHNOLOGY: COMPUTER SYSTEMS OPTION</b>				
March 2008	Change name of Program: <b>From</b> Electronic Technology: Computer Systems Option  <b>To</b> Electronic Technology: Computer Network Systems Option		Feb 2012	Name change needs to be reviewed.
			Mar 2013	Program will be changing to Engineering Technology with concentration in Electrical and Mechanical
			Mar 2013	Raytheon Test B Certificate added the NECC website under programs offered at NECC. It is noted the certificate program is closed to the public.
			Mar 2014	New program, Engineering Science-Technology Option has been approved by Academic Affairs. Waiting final sign off. New program will offer both Electronic Technology and Mechanical Technology concentrations.
			Mar 2014	EET Certificate name change is being reviewed by Academics Affair. Ne name will be Engineering Science Electronic Technology Certificate. This reflects the new 2 year degree option program. English I is now a requirement.
March 2008	Change Electronic Technology required course in the	Program Elective add: Sequence one PHS111 Or EST111 Sequence two PHS112 Or EST112	Sept 2008	Changes reflected in the program requirements starting Fall 2008

	Academic Advising Handbook			
March 2008	Change Electronic Technology: Computer Systems Option to add required courses to the Academic Advising Handbook	Add Technical Electives only CTN201-Computer Networking I and Computer Networking II	Sept 2008	Changes reflected in the program requirements starting Fall 2008

### ELECTRONIC TECHNOLOGY

March 2007	Increase student enrollment	<ol style="list-style-type: none"> <li>1. Establish and maintain a solid marketing/recruiting plan.</li> <li>2. Modify the Engineering Science Program to incorporate the Electronic Technology certificate as a requirement for electrical engineering focus.</li> </ol>	<p>Jan 2009</p> <p>Feb 2009</p>	<p>Moved the majority of ET courses to evening offering only, (Fall 2009)</p> <p>Developed a detailed course sequence schedule for Eng Science (Electrical/Computer Focus) students. Schedule given to academic advising. Letters sent to Eng Sci students March 2009</p>
March 2007	Old microcomputer training equipment.	Review current trainers and processors available for classroom activities.	<p>Jan 2008</p> <p>Feb 2012</p>	<p>CTE210 Microcomputers was modified to incorporate state-of -the - art microcontrollers. New microcontroller offered Spring 2008.</p> <p>Course removed from program</p>
March 2007	Students have minimal exposure to software programming. Also limited work is performed with electronic sensors.	Incorporate Embedded Systems I (CTE-241) Course into the program.	<p>Jan 2008</p> <p>Feb 2010</p> <p>Feb 2012</p> <p>Feb 2011</p>	<p>CIS140 Introduction to Computer Science is a prereq. For CTE210. Also, CIS140 is required in the ET degree. CIS140 will provide introduction to programming.</p> <p>However, ET program will investigate additional course work for more programming.</p> <p>EST104 now an elective</p> <p>CTE210 has incorporated some sensor work with the new microcontroller.</p> <p>New Engineering Essential &amp; Design course has been developed (EST 104) and accepted by Academic Affairs. MATLAB and C++ programming will</p>

			Mar 2013	<p>be an important aspect of the course. The course needs to be incorporated into the ET program.</p> <p>Atera VHDL programming Logic introduced into the curriculum, CTE220</p>
March 2007	<p>1. More articulation agreements with local traditional high schools.</p> <p>2. Increase the number of courses and credits for high schools that already have agreements with NECC.</p>	<p>1. Contact additional local high schools for articulation agreements.</p> <p>Review coursework, make modification at the high school, if necessary, and finalize agreement.</p> <p>2. Review current agreements and high school coursework. Make modification at the high school, if necessary, and finalize agreement.</p>	<p>Sept 2008</p> <p>Feb 2012</p> <p>Mar 2013</p> <p>Mar 2014</p>	<p>NECC has completed an “up to” 18 credit articulation agreement with GLT high school.</p> <p>High School agreements under review</p> <p>High School agreements complete</p> <p>Shawshean Tech HS agreements renewed.</p>

**ELECTRONIC TECHNOLOGY: COMPUTER SYSTEMS OPTION**  
**ELECTRONIC TECHNOLOGY**

March 2008	<p>Faculty Mentors. The CTE department should consider implementing a Faculty Mentoring Program to create a link between adjunct, newly-appointed, and tenure-track faculty.</p>	<p>1. Cross train current full - time faculty.</p> <p>2. Bring in new DCE faculty.</p> <p>This effort would be a useful way of helping new faculty members adjust to their new environment, retraining adjunct faculty, and improving the quality of technical education provided to students.</p>	<p>Feb 2009</p> <p>Feb 2010</p> <p>Feb 2012</p> <p>Feb 2011</p> <p>Mar 2013</p> <p>Mar 2014</p>	<p>Division is starting the recruitment process for new DCE faculty for both the Fall 2009 and Spring 2010 semesters.</p> <p>New DCE faculty have been hired</p> <p>Two new adjuncts hired to cover Digital, Circuits and communication courses</p> <p>Advertising for new DCE faculty to start Fall 2011</p> <p>New Adjunct hired to teach Electronics I and II</p> <p>New posting, Mar 2013 adjunct teacher</p> <p>New Adjunct hired to teach CTE111 and CTE112</p>
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			Mar 2014	2 <sup>nd</sup> instructor teaching at the Raytheon Test B program
March 2008	MATLAB training	MATLAB Fundamentals and Programming Techniques is a two-day course that provides a working introduction to the MATLAB technical computing environment. This course is intended for beginning and intermediate users.	March 2008	CTE has secured funds from the BAYTEC grant to support the action. There is no cost to NECC.
			Feb 2009	Two faculty members went to two day training, (July 2009).
			Feb 2010	Develop plan to implement into both the ET and Eng Sci curriculum
			Feb 2012	MATLAB established in EST104. Looking to implement in math courses
			Mar 2014	Funds secured through STEM Starter Academy grant to run an "in house" three day workshop on MATLAB-June 2014
March 2008	ASEE annual conference Two faculty reimbursement for travel in the spring/summer semester.	This conference is the largest forum for engineering educators. Many four- and two- year institutions are represented. Also, the proceedings have a K-12 engineering division. The latest in class room subject content, creative methods for student engagement and the newest educational technology are presented. Also, many vendors and industry representatives participate in this conference.	March 2008	CTE has secured funds from the PERKINS GRANT to support the action. There is no cost to NECC.
			Feb 2009	Funds are available for two faculty to travel to the 2009 ASEE conference in Austin, TX (June 2009)
			Feb 2010	Funds are available for two faculty to travel to the 2010 ASEE conference
			Feb 2011	Funds secured through STEP UP for two faculty to travel to the ASEE conference
			Feb 2012	Funds secured through STEP UP for two faculty to travel to the ASEE conference
			Mar 2013	Funds secured through STEP UP for two faculty to travel to the ASEE conference
			Mar 2014	Funds secured through Perkins for one faculty to travel to the ASEE conference
March 2008	Part-time marketing/PR staff.	Increase the awareness of all the technical programs available at NECC.	Nov 2009	Fliers have been developed by the CTE department
		Establish marketing/recruiting plan for the technical programs	Feb 2009	More work needs to be done.
			Feb 2010	Raytheon signed contract with NECC to offer 'on site' EET Cert. to their employees. First cohort to graduate Apr. 2010

			Feb 2011	Raytheon signed second contract with NECC to offer ‘on site’ EET Cert. to their employees, Fall 2010. Second cohort to graduate Dec. 2011
			Feb 2012	Raytheon 2 <sup>nd</sup> cohort graduated. 3 <sup>rd</sup> cohort started Jan 2012 and will complete May 2013
			Feb 2012	Developing Test A and Calibration A program with Raytheon. Anticipated start day in Jan 2013
			Mar 2013	Graduated 1st cohort of Raytheon Test A accelerated program; Dec 2012  3rd Cohort of Raytheon Test B will graduate May 2013
			Mar 2014	4 <sup>th</sup> Cohort of Test B started Jan 2014, anticipated graduation Spring 15