



**Docket Item:**

Community College Program Approval

**Summary:**

Recommendations from Department of Community Colleges and Workforce Development

**Docket Material:**

**Action Item**

*Policy Issue: Staff Action on New Career and Technical Education Programs*

**Proposed Community College Program**

**State Board Standards--Staff Analysis Abstract**

<b>Name of College:</b>	Linn-Benton Community College
<b>Program Title:</b>	Nondestructive Test (NDT) and Evaluation
<b>Proposed Start Date:</b>	Fall 2016
<b>Board Submission Date:</b>	January 14, 2015
<b>Type of Program:</b>	<input checked="" type="checkbox"/> <b>Associate of Applied Science Degree</b> Credits: <u>94</u> CIP Code: <u>15.0799</u> CIP Title: <u>Quality Control and Safety Technologies/Technicians, Other.</u> <input type="checkbox"/> <b>Option Title</b> Credits: _____ CIP Code: _____ CIP Title: _____ <input type="checkbox"/> <b>Certificate of Completion</b> Credits: _____ CIP Code: _____ CIP Title: _____ <input type="checkbox"/> <b>Business and Industry</b> (closed enrollment)

## HIGHER EDUCATION COORDINATING COMMISSION

January 14, 2016

<b>Assurances:</b> The College has met or will meet the four institutional assurances required for program application.	
1.	<b>Access.</b> The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.
2.	<b>Continuous Improvement.</b> The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested, as needed.
3.	<b>Adverse impact and detrimental duplication.</b> The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse <i>intersegmental</i> and <i>intra</i> segmental impact and detrimental duplication problems with other relevant programs or institutions.
4.	<b>Program records maintenance and congruence.</b> The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, etc. maintained by the Department are the official records and it is the college's responsibility to keep their records aligned with those of the Department. The college will not make changes to the program without informing and/or receiving approval from the Department.

Summary
The field of Non-Destructive Test and Evaluation (NDT) involves a family of scientific techniques and practices that reveal the internal characteristics of materials without impairing their future usefulness. NDT technicians routinely use ultrasonic tools, penetrating dyes, radiography techniques, and magnetic particle inspection to test and impact the quality, durability and reliability of materials and goods in the areas of aerospace, construction, transportation, turbine and power generation, petrochemical industry, structural, plant infrastructure, manufacturing and many more areas.

Program Highlights
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<b>Standards:</b> The College has met the five program approval standards.	
<b>1. Need</b>	<b>The community college provides clear evidence of the need for the program.</b>
	A survey of local aerospace and manufacturing industry business (Advanced Technology International (ATI), Selmet, TechCorr, etc.) Chief Executive Officer (CEO) and Human Resource (HR) directors reveal the need to fill over 125 NDT positions in the local area (Albany/Linn County) over the next five years due to growth in the manufacturing area (specifically aerospace) with continued demand due to retirements in the field over the next 10 years according to the Industry employment site Personnel for Quality and Nondestructive Testing (PQNDT.com) nationwide expectations for the American Society for Nondestructive Testing (ASNT). The NDT and quality inspection industries appear to be riding the crest of a wave that is tied to the nationwide economic recovery. NDT is still ahead of the national average when it comes to employment and the rate of wage increases. This has been a consistent trend over the past few years. While U.S. unemployment in 2014 fell to approximately 6%, unemployment in the NDT field dropped even further, to 3.5%. At PQNDT we have been serving a growing number of companies seeking to fill open NDT and quality inspection positions, and many of our candidates are fielding multiple job offers. These are all signs of a healthy and vibrant industry. NDT professionals have an improved

**HIGHER EDUCATION COORDINATING COMMISSION**

January 14, 2016

	<p>outlook on economic stability and employment prospects across the board with an average 4% rise in overall compensation levels far outpacing the Consumer Price Index and inflationary rates. There continues to be incremental growth in the number of females employed in several industry segments, and in NDT overall. This is all good news for those of us in NDT and quality, as increased manufacturing and construction activities should keep our industry's own recovery on an upward track.</p>
<b>2. Collaboration</b>	<p><b>The community college utilizes systemic methods for meaningful and ongoing involvement of the appropriate constituencies.</b></p> <p>Over the last year and a half Linn-Benton Community College (LBCC) has been working closely with the Albany Workforce Development Task Force (WDTF) composed of local industry (ATI, Selmet, Oregon Freeze Dry, Viper, L&amp;M Fabrication, National Frozen Food, etc.) to address the need for skilled workers to meet high demand, high wage jobs among our manufacturing industry partners. The need for NDT was a priority identified by this group that included aerospace company CEOs. Due to this need and the need for employees in the area of manufacturing this industry group advocated and received 2.9 million dollars of economic development funds to provide equipment for LBCC Career and Technical Education (CTE) programs in the manufacturing area. 1.3 million dollars of this funding was identified to startup an NDT program due to the vast importance and need by these local employers. In addition, having an NDT program in the Linn/Benton county area would be seen as an asset to attracting new companies to the area and has already proved a positive factor in economic development with TechCorr (an International NDT company locating locally and being involved in the process of establishing the program. The college has established a standing partnership and advisory board with the Albany WDTF and a specific local NDT advisory board that has been meeting and communicating regularly over the past year. The NDT advisory board met this past June 15 and participated in Design a Curriculum a (DACUM) that jointly (industry reps and LBCC faculty) produced the NDT program, courses and will approve equipment procurement.</p>
<b>3. Alignment</b>	<p><b>The community college program is aligned with appropriate education, workforce development, and economic development programs.</b></p> <p>As a regional community college committed to assist in the growth of its service district, supporting jobs is fundamentally important. Nondestructive Testing/Nondestructive Evaluation (NDT/NDE) is a growing field especially in aerospace which is an area targeted by regional economic development agencies in Linn County. Non Destructive Test and Inspection is a lucrative career choice with opportunities for graduates throughout the region and nation. The 10 year projection is for steady growth in the use of NDT/NDE technicians. The program can become a vital part of economic development as was pointed out in the Standard B: Collaboration. Our partnership with the industry and local business in a daily one to one relationship along with the collaborative approach through the Albany WDTF aligns us well with industry, K-12, city and state government - as all participate on this Task Force.</p>

**HIGHER EDUCATION COORDINATING COMMISSION**

January 14, 2016

4. <i>Design</i>	<b>The community college program leads to student achievement of academic and technical knowledge, skills, and related proficiencies.</b>
	<p>The American Society for Nondestructive Testing (ASNT) is a well-respected industry organization that has created several levels of certification for technicians in the Nondestructive Testing/Nondestructive Inspection (NDT/NDI) field. Level I and II technician qualifications are administered by employers or educational institutions who comply with the ASNT best practice document Society for Nondestructive Testing Technical Council (SNT-TC)-1A. Level I technicians are trained in the basics of non-destructive test methods and must also accrue a certain number of hours in the field before being qualified. Level II technicians are tested to a higher level of academic training and additional hours of on the job experience. Additionally, Level II technicians must receive continuing education training in order to remain qualified in specific techniques. Level III ASNT technicians must sit for an ASNT proctored exam and have additional continuing education requirements including training of others. Beyond ASNT there are additional industry certifications that exist for aerospace, civil and nuclear industries. Some of these include the National Aerospace Standard (NAS) -410 Aerospace code which also uses a level I, II, III certification scheme, American Welding Society Certified Welding Inspectors (CWI) and American Petroleum Industry (API). A Department Chair along with the Division Dean will oversee instructional progress and ensure students are meeting the established outcomes of the curriculum. The curriculum is based on a DACUM process that was held in June 15 with local industry reps and resulted in courses that will be based on the ASNT SNT-TC-1A standards and will be able to prepare students to take Level I and eventually Level II certification tests as much of the coursework is standardized by industry and certification requirements.</p>

5. <i>Capacity</i>	<b>The community college identifies and has the resources to develop, implement, and sustain the program.</b>
	<p>This program requires significant start up expense for specialized equipment, with estimates at approximately 1.3 million dollars. Startup costs for the NDT program will be funded by the City of Albany Economic Development Funds, along with funding from a passed Bond measure that will allow for repurposing of a vacant automotive space on campus. The ongoing costs of the NDT/NDE program will be funded by the General Fund and in partnership with local industry providing contributions in the form of M&amp;S, training, direction, and expertise. The request for a new NDT faculty member has been submitted and approved and this position will be a Full Time (FT) faculty position. The NDT program shares core courses with our other manufacturing programs - such as welding and machine tool. Along with our partnership with the Albany WDTF, K-12 partners the program is in a position to leverage and sustain multiple pathways to employment.</p>

Approval Signature		
Name	Luis Juarez	Dr. Daniel E. Findley
Title	Education Specialist	Director

**HIGHER EDUCATION COORDINATING COMMISSION**

January 14, 2016

Date	12/4/15	12/4/15
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**Staff Recommendation:**

RESOLVED, that the Higher Education Coordinating Commission approve the Nondestructive Test (NDT) and Evaluation AAS degree program at Linn-Benton Community College.