Advanced Technology Division

Construction Technology Unit Plan

Lane Community College

Revised 3/16/05

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Alignment with the College

Construction Technology is a credit instructional program and has been offered at Lane Community College since 1976. The program is administered under the Office of Instruction and Student Services through the Advanced Technology Division.

The construction Technology program is centrally aligned with the College's strategic directions, core values, and learning centered principles.

Strategic Directions

Achieve Financial Stability: This program demonstrated a reduction in cost per student for FY03. This means more students were served with less funds while maintaining the excellent quality of the program.

Enhance the College Climate: This program actively recruited students from under-represented populations.

Core Values

Learning: Learning is both theoretical and applied. Student learning progresses from basic to advanced technical, academic and employability skills. Students work on actual building projects in the local community.

Diversity and Accessibility: The program faculty welcome students from diverse backgrounds. Students with special needs are accommodated with appropriate supplemental learning technologies and experiences.

Innovation: Faculty maintain their expertise in the field and incorporate advanced technologies in the curriculum. The faculty has made a commitment to maximize the use of innovative instructional technologies to transform the curriculum. Some examples of this include transferring lecture notes to PowerPoint and assisting the division in developing a technical common core curriculum.

Collaboration and Partnership: The faculty work very closely with their program advisory committee. This committee is a representation of active community business partners who provide advice and program support. The Construction Technology faculty also work very closely with other divisional programs, especially Drafting and Fabrication/Welding

Integrity: The program faculty has demonstrated a high degree of integrity. They are openly accountable to perform according to the policies, procedures and expectations of the College, the division, the advisory committee, and most importantly, the students.

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Learning Centered Principles

Substantive Change in Individual Learners: The Construction Technology program excels in transforming student lives. This transformation is demonstrated when a new student enters the program without entry level skills and can complete the two-year program to obtain a high-wage career in the construction industry.

Document Learning Success: Students who successfully complete the program are qualified to enter apprenticeship programs in the construction related industries.

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Unit Description

The Construction Technology program is an occupational, preparatory, two-year Associate of Applied Science degree and/or a one-year certificate of completion program.

The Construction Technology program features state-of-the-art laboratories where students learn the technical skills and knowledge of the construction industry. The advanced expertise of the faculty make Lane's Construction Technology program the best way to enter the field.

Faculty in the program bring considerable field experience to the classroom and regularly attend workshops to help them keep up with changes in building codes and materials in the industry.

The program provides classroom instruction and considerable on-site training on construction projects in the local community. Program course work includes: Building Construction; Blueprint Reading; Construction Codes; Construction Estimating; Into to Bricklaying; Commercial and Residential Buildings; Health and Safety and Construction Surveying

Graduates of this program can expect to work in the residential and commercial building construction field. This training can lead to employment for experienced builders earning approximately $35,000 annually. Employment opportunities are expected to be much higher than average with the industry growing faster than average. Those with formal training and related work experience would have a competitive advantage in this labor market.

New students can enter the program at the beginning of fall, winter or spring terms. For consent to enroll in major courses students must attend a program orientation in fall terms (dates available in counseling or the Students First! Center) or contact the department advisor/counselor in winter and spring terms). All interested applicants should complete placement testing (Assessment & Testing Office, Building 1) in reading, writing and math. A minimum score of 68 in Reading and 64 in Writing is required. Take testing results to the program orientation and/or advisor/counselor for assistance with course selections. Restricted facilities limit the number of students admitted to this program.

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Degrees and Certificates

Two-Year Associate of Applied Science Degree	**Credits**
AAS Program Total	**113-114**
First Year	
Fall	
Building Construction CST 118	5
Blueprint Reading 1 CST 110	3
Construction Orientation and Environment CST 111	2
English Composition WR 121 or higher	3
Concepts of Computing CS 120 or Computer Fundamentals CIS 101	3-4
Total Credits	**16-17**
Winter	
Building Construction CST 118	5
Blueprint Reading 2 CST 211	3
Construction Codes CST 122	2
CAD 1 DRF 167	4
Applied Geometry for Technicians MTH 076 or higher	4
Total Credits	**18**
Spring	
Building Construction CST 118	5
Building Construction Surveying CST 119	3
Construction Estimating CST 116	4
Introduction to Bricklaying CST 283	1
Human Relations requirement	3
Total Credits	**16**
Second Year	
Fall	
Workplace Safety HE 125 or First Aid HE 252 or PE/Health requirement	3
Directed electives (see list below)	3
Residential Buildings DRF 208	4
Arts and Letters requirement	3
Cooperative Education: Construction CST 280C	3
Total Credits	**16**
Winter	
Science/Math/Computer Science requirement	3
Directed electives (see list below)	6
Commercial Buildings DRF 210	4
Cooperative Education: Construction CST 280C	3
Total Credits	**16**
Spring	
Directed electives (see list below)	9
Arts/Letters or Science/Math or Social Science/Human Relations requirement	3
Cooperative Education: Construction CST 280C	3
Total Credits	**15**

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One-Year Certificate of Completion	Credits
One-year Certificate of Completion total	**113-114**
First Year	
Fall	
Building Construction CST 118	5
Blueprint Reading 1 CST 110	3
Construction Orientation and Environment CST 111	2
English Composition WR 121 or higher	3
Computer Fundamentals CIS 101	3
Total Credits	**16**
Winter	
Building Construction CST 118	5
Blueprint Reading 2 CST 211	3
Construction Codes CST 122	2
CAD 1 DRF 167	4
Applied Geometry for Technicians MTH 076 or higher	4
Total Credits	**18**
Spring	
Building Construction CST 118	5
Building Construction Surveying CST 119	3
Construction Estimating CST 116	4
Introduction to Bricklaying CST 283	1
Human Relations requirement	3
Workplace Safety HE 125 or First Aid HE 252 or PE/Health requirement	3
Total Credits	**19**

Directed Electives (18 credits required for AAS degree):

Apprenticeship Courses
Trade Skills Fundamentals APR 101 - 4 credits

Business Courses
Management Fundamentals BA 206 - 3 credits
Small Business Management BA 250 - 3 credits

Drafting Design Courses
CAD 2 DRF 168 ***** - 4 credits
Architectural Drafting – Plans DRF 137 - 4 credits

Skill Development Courses
Shielded Metal Arc Welding 1 WLD 121 - 4 credits
Shielded Metal Arc Welding 2 WLD 122 ***** - 4 credits

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Science/Technical Trades Courses

Principles of Technology 1 PGS 199A - 4 credits
Principles of Technology 2 PGS 199B ***** - 4 credits
Statics DRF 205 ***** - 3 credits
Strength of Materials DRF 207 ***** - 3 credits

Cooperative Education

Co-op offers students college credit and a grade for on-the-job work experience related to their educational and career goals. Through Co-op, students connect theory and practice, develop skills, expand career knowledge, and make contacts for the future. Work schedules and work sites vary. Under the supervision of the Construction Technology Co-op Coordinator and with instructor consent, a maximum of 18 Co-op credits may be earned in lieu of required Construction Technology course credits.

Organizational Structure

Board of Education
President
Vice President of Instruction
Associate Vice President of Instruction
Division Chair Advanced Technology
Faculty Construction Technology Program

Faculty/Staff

Name	***Leonard Keen***
Classification	Full-Time Faculty
Year Hired	1999
Degrees/Credentials	

Program Outcomes

Program Operating Information – Trends

Performance Analysis

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Unit Initiatives

Unit initiatives are separated into two categories: Maintenance Initiatives and Enhancement Initiatives.

Maintenance initiatives are requests for resources to maintain the existing levels of program efficiency and effectiveness. Maintenance initiatives respond to:

1) any mandatory changes in the program (recurring contracts, change in credits, implementing accreditation or other curriculum standards), and,
2) costs to maintain the existing curriculum and program equipment.

Enhancement initiatives are requests for new resources to implement substantive changes in the program, usually in response to student growth or new curriculua.

Maintenance Initiatives

Initiative ID	Need	Request
M01	Maintain an average student to teacher load of 18:	an annual student count is maintained as a division function. The number of students Are counted in each class and then divided by the number of classes in that year.
M02	All students have access to co-op work experience	The Co-Op coordinator assigned to this program is to provide written and oral information to students regarding the available opportunities.
M03	Table Saw	600
M04	Skill saws (3)	420
M05	Air compressor	350
M06	Routers (2)	400
M07	Sawall (2)	360
M08	Drill motors (3)	420

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Enhancement Initiatives

Initiative ID	Need	Request
E01	Truck	25,000
E02	Masonry saw	1,000
E03	Tile saw	400
E04	Additional shop space 5-10,000 sq. ft	
E05	FT Faculty	75,000
E06	Masonry saw	1,000

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Division/Unit	Initiative ID	Division Priority	Date of Initiative	Expected completion date	Initiative Description	Resource Description	$$	Recurring / Nonrecurring	Resource Type (mark with an "X")				Funding Sou (mark with an			
									Payroll (w/OPE)	Equipment	Space	Other	Existing	New G-F	CP	TACT
Construction	E01	4			New Equipment	Truck	25,000	NR		x				x	x	
	E02	3			New Equipment	Masonry saw	1,000	NR		x				x	x	
	E03	3			New Equipment	Tile saw	400	NR		x				x	x	
	E04	1			New Equipment	Additional shop space 5-10,000 sq. ft		NR			x			x		
	M01	3			Replacement Equipment	Table Saw	600	NR		x			x		x	x
	M02	3			Replacement Equipment	Skill saws (3)	420	R		x			x		x	x
	M03	3			Replacement Equipment	Air compressor	350	NR		x			x		x	x
	M04	3			Replacement Equipment	Routers (2)	400	R		x			x		x	x
	M05	3			Replacement Equipment	Sawall (2)	360	R		x			x		x	x
	M06	3			Replacement Equipment	Drill motors (3)	420	NR		x			x		x	x
	E05	2			New Equipment	FT Faculty	75,000	R	x					x		