

New Program Request Form

CA1

General Information

Institution Submitting Proposal	Barton Community College
Name and Title of Contact Person	Elaine Simmons--Dean of Workforce Training and Community Education
Title of Proposed Program	Computer Aided Drafting Certificate
Proposed CIP Code	15.1302
Degree/Certificate Program Description	This program is designed to provide students with the necessary skills to work in entry-level drafting positions, such as draftsmen, plans checker, planner, detailer and designer, all of which have varying levels of responsibility and job titles. Draftsmen prepare drawings and plans to provide the technical details relating to products and structures using drawings, rough sketches, specifications, codes and calculations.
Number of Credits for the degree and/or certificate	21 hour Certificate Program
Academic Unit	Business, Technology and Community Education
Proposed Date of Initiation	Spring 2010
Specialty Accrediting Agency	None
Location(s) of Program	Ellsworth Correctional Facility; Larned Mental Health Correctional Facility; Larned Juvenile Correctional Facility; and Barton Community College. (Funding provided through the CBJT grant will allow Hutchinson Community College the resources to provide Computer Aided Drafting Certification instruction to Hutchinson Correctional Facility).
Summary of Demand for the Program (including source of data)	According to US Department of Labor Statistics, employment of draftsmen is expected to grow by six percent between 2006 and 2016. Industrial growth and increasingly complex design problems associated with new

	products and manufacturing processes is projected to increase the demand for drafting services.
Listing of other similar programs in state/region (including enrollments and capacity)	Butler Community College, Coffeyville Community College, Cowley Community College, Fort Scott Community College, Garden City Community College, Hutchinson Community College, Independence Community College, Johnson Community College, Kansas City Areas Technical College, Kansas City Kansas Community College, Kaw Valley Technical College, Manhattan Area Technical College, Northeast Technical College, Salina Area Technical College, Seward Community College/Southwest Kansas Technical College, and Wichita Area Technical College.(See table on pages 5-7 for program information)
Date entered into Program Inventory	

Signature of College Official _____ Date _____
Signature of KBOR Official _____ Date _____

Barton Community College

Drafting Certificate Program

Program Description

Catalog Description

This program is designed to provide students with the necessary skills to work in entry-level drafting positions such as draftsmen, plans checker, planner, detailer and designer, all of which have varying levels of responsibility and job titles. Drafters prepare drawings and plans to provide the technical details of products and structures using drawings, rough sketches, specifications, codes and calculations.

Graduation and Admission Requirements

Graduation Requirements

Students must complete the required 21 credit hours and maintain a 2.0 grade point average in the required courses to be awarded the Computer Aided Drafting Certificate.

Program Admission

Students entering the program must be high school graduates or possess a GED certificate.

Objectives

The certificate program includes learning objectives/outcomes which assist students with basic knowledge and skills of the drafting industry. Upon completion students will demonstrate competence in the following areas:

- Properly read and understand a set of basic blueprints.
- Perform reasonable and suitable design for a proposed purpose.
- Present projects professionally using effective drawn, written and nonverbal communication skills.
- Properly design and detail various projects which demonstrate an understanding of standard Computer Aided Drafting and Design (CADD) processes.
- Use manual drafting or computer aided drafting equipment with sufficient skill to properly scale and reproduce drawings.
- Use professional skills to complete projects, adhere to sound fiscal management considerations, and meet quality standards.
- Use a computer workstation to utilize computer drafting tools and applications software.

Relationship to Institution's Mission

The mission of Barton County Community College is to deliver educational opportunities that improve the lives of students, meet the workforce needs of the region and strengthen its communities.

The Computer Aided Drafting Certificate meets the institution's mission to improve the lives of students by providing education and training to obtain employment, increase earning ability, and qualify for promotion.

The program meets the workforce needs of the region by responding directly to an industry request to develop a well trained, qualified and committed employee pool to address current and future employee needs.

The program was developed as part of a Community Based Job Training grant that was awarded to Barton Community College by the U.S. Department of Labor. The purpose of the grant is to provide career and technical training to Kansas Department of Corrections inmates and Juvenile Justice Authority detainees prior to their release from confinement. The grant also provides training to Kansas Department of Corrections clientele that are assigned to community corrections.

The grant provides career and technical training in four major certificate program areas: Welding, Manufacturing Skills, Plumbing/HVAC, and Computer Aided Drafting. The grant works in conjunction with other agencies to provide life skills training, exposure to the Kansas Career Pipeline and completion of the Kansas WorkReady certification.

In order to accomplish the goals of the grant, Barton Community College is collaborating with a wide range of partners including Hutchinson Community College, North Central Kansas Technical College, Kansas Department of Corrections, Kansas Juvenile Justice Authority, Central Kansas Community Corrections, Kansas Department of Commerce, Local Workforce Investment Boards, and numerous members of the business and industry community from across the state of Kansas.

By providing the Computer Aided Drafting Certificate Program, communities will be strengthened by the reduction in recidivism rates. Enrolling pre-release inmates into technical training programs provides an excellent return on the training investment. Upon release, untrained inmates typically earn a very low wage which leads to challenges in meeting financial obligations. Statistics show that offenders who receive training during their incarceration make substantial strides toward fulfilling their financial obligations. Additionally, statistics show a 5% reduction in inmate recidivism within one year of follow up, when comparing those who receive training versus those who did not participate.

Demand for the Program

Student Interest

The Kansas Department of Corrections and the Juvenile Justice Authority devote significant time and personnel resources to ensure offenders are provided every opportunity to be successful upon release. Each incarcerated person is provided an individualized program plan that attempts to match their skill level, educational level, and interest level with an available training program. The Computer Aided Drafting Program will provide an additional career and technical training

option for eligible participants who express an interest and desire to seek employment in a manufacturing or construction trades industry.

The Computer Aided Drafting program prepares students to work in the drafting field. Draftsmen prepare technical drawings and plans, which are used to build everything from manufactured products such as toys, industrial machinery, and spacecraft, to structures such as houses, office buildings, and oil and gas pipelines. Graduates of this certificate program will have the skill set necessary for entry level employment in the drafting field.

Employer Demand/Labor Market Need

Employment change. Employment of draftsmen is expected to grow by six percent between 2006 and 2016, nationally. Statistics specific to the state of Kansas projects openings for draftsmen will increase by seven percent for the state and a total of 15% within Barton's service area. Industrial growth and increasingly complex design problems associated with new products and manufacturing processes will increase the demand for drafting services. Furthermore, drafters are beginning to shift from the traditional drafting role to performing work previously completed by engineers and architects. This shift in responsibilities will lead to an increase in employment demand. Drafters tend to be concentrated in slow-growing or declining manufacturing industries. Recent advances in Computer Aided Drafting and Design systems have led to a more powerful and user-friendly tool. This "new age" technology is expected to limit demand for lesser skilled drafters because simple tasks will be performed by other technical professionals.

Although growth is expected to be greatest for mechanical, architectural, and civil drafters, demand for particular drafting specialties varies throughout the country because employment usually is contingent on the needs of local industry. Completion of the proposed Computer Aided Drafting Certificate will prepare the successful participant to specialize in one or more of the above noted drafting specialty areas.

Job prospects. Most job openings are expected to arise from the need to replace drafters who transfer to other occupations, leave the labor force, or retire.

CADD has increased the complexity of drafting applications while enhancing the productivity of drafters. It also has enhanced the nature of drafting by creating more possibilities for design and drafting. As technology continues to advance, employers will look for drafters with a strong background in fundamental drafting principles, a high level of technical sophistication, and the ability to apply their knowledge to a broader range of responsibilities

Employment of draftsmen remains highly concentrated in industries that are sensitive to cyclical changes in the economy, primarily manufacturing industries. During recessions, draftsmen may be laid off. However, a growing number of draftsmen should continue to find employment on a temporary or specific job contractual basis as more companies turn to the employment services industry to meet their changing needs.

Projections Data

Projections data from the National Employment Matrix

Occupational title	SOC Code	Employment, 2006	Projected employment, 2016	Change,	
				Number	Percent
Drafters	17-3010	253,000	268,000	15,000	6
Architectural and civil drafters	17-3011	116,000	123,000	7,000	6
Electrical and electronics drafters	17-3012	35,000	36,000	1,400	4
Mechanical drafters	17-3013	78,000	82,000	4,100	5
Drafters, all other	17-3019	25,000	27,000	2,700	11

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on [Occupational Information Included in the Handbook](#).

The following data was provided by Economic Modeling Specialist, Inc. (EMSI). EMSI provides integrated regional economic and labor market data, web-based analysis tools, data driven reports, and consulting services. EMSI specializes in detailed information about regional economies for assessment and planning purposes, bringing together industry, workforce, and educational perspective. As seen by the projections between 2006-2012, openings for draftsmen in the state of Kansas will increase 7%. Within Barton's service area, openings will increase 15%.

Region Info

Region: State

State Area: Kansas

SOC Code	Description	2006 Jobs	2012 Jobs	Change	% Change	2007 Median Hourly Earnings
17-3010	Drafters	3,040	3,265	225	7%	\$20.86
		3,040	3,265	224	7%	\$20.86

Region: Service Area

County Areas: Barton, Kansas (20009), Ellsworth, Kansas (20053), Pawnee, Kansas (20145), Rice, Kansas (20159), Rush, Kansas (20165), Russell, Kansas (20167), Stafford, Kansas (20185)

SOC Code	Description	2006 Jobs	2012 Jobs	Change	% Change	2007 Median Hourly Earnings
17-3010	Drafters	34	39	5	15%	\$14.74
		34	39	5	15%	\$14.74

Demand From Local Community (Appendix A)

Business/Industry Partnerships

Great Plains Manufacturing, Ellsworth, KS
 Maico Industries, Inc., Ellsworth, KS
 Hess Services, Inc., Hays, KS
 Moly Manufacturing, Inc., Lorraine, KS
 Clark Manufacturing, Inc., Wellington, KS
 A-1 Plank & Scaffold Mfg., Inc., Hays, KS
 Doonan Trailer, Great Bend, KS
 Wilkens Walking Floor Trailers, Stockton, KS
 Southeast Kansas Educational Services Center, Topeka, KS
 Kansas Department of Corrections, Topeka, KS
 Kansas Juvenile Justice Authority, Topeka, KS
 Central Kansas Community Corrections, Great Bend, KS
 Kansas Department of Commerce, Topeka, KS
 Hutchinson Community College, Hutchinson, KS
 North Central Kansas Technical College, Beloit, KS
 Kansas WorkforceONE, Great Bend, KS
 Heartland Works, Inc., Topeka, KS
 Workforce Alliance of South Central Kansas, Wichita, KS
 Workforce Partnership, Kansas City, KS
 Post Rock Jaycees, Ellsworth, KS
 Spiritual Life Center, Ellsworth, KS

Duplication of Existing Programs

Similar Programs (Information as of 8/19/2009)

Institution	Name of Program	Level	Credit Hours	# of Students Enrolled	Number of Slots Available
Cowley	CIP 15.1301 Drafting Technology	Degree- AAS	66	0*	0*
Cowley	CIP 15.1301 Drafting Technology	Certificate	48	0*	0*
Fort Scott	CIP 15.1301 CADD	Degree – AAS	60	0*	0*

Garden City	CIP 15.1301 Drafting	Degree – AAS	64	0*	0*
Hutchinson	CIP 15.1306 Computer Drafting- Machine	Degree- AAS	64	16	16
Hutchinson	CIP 15.1303 Computer Drafting- Architectural	Degree- AAS	64	16	16
Independence	CIP 15.1301 Drafting/Cad/Engineering Technology	Degree- AAS	64	7	12
Johnson	CIP 15.1301 CAD Network Administrator	Certificate	16	**	**
Johnson	CIP 15.1302 Computer Aided Drafting & Design Technology	Degree – AAS	67	**	**
Butler CC	CIP 15.1302 Engineering Graphics	Degree- AAS	64	15	15
Butler CC	CIP 15.1302 Engineering Graphics	Certificate	31	15	15
Coffeyville	CIP 15.1302 Computer Aided Design Technology	Degree – AAS	64	*	*
Coffeyville	CIP 15.1302 Computer Aided Design Technology	Certificate	46	*	*
Kansas City Area Technical	CIP 15.1302 Computer Aided Drafting	Certificate	57	**	**
NE Technical	CIP 15.1302 Computer Aided Drafting	Certificate	58	**	**
Wichita Area Technical	CIP 15.1301 Drafting Technology – Architectural Drafting	Degree- AAS	75	**	20-25
Wichita Area Technical	CIP 15.1301 Drafting Technology – Mechanical Drafting	Degree – AAS	75	**	20-25
Wichita Area Technical	CIP 15.1301 Drafting Technology – Mechanical Drafting	Certificate	51	**	20-25
Wichita Area Technical	CIP 15.1302 Computer Aided Drafting	Degree – AAS	62	**	20-25
Wichita Area Technical	CIP 15.1302 Computer Aided Drafting	Certificate	34	**	20-25
Seward & SW Kansas Technical	CIP 15.1301 Drafting & Design Technology	Certificate	44	15	15
Seward & SW Kansas	CIP 15.1301 Drafting & Design	Degree- AAS	64	15	15

Technical	Technology				
Manhattan Area Technical	CIP 15.1302 Computer Aided Drafting Technology	Certificate	33-34	15	15
Manhattan Area Technical	CIP 15.1302 Computer Aided Drafting Technology	Degree – AAS	62	15	15
Salina Area Technical	CIP 15.1302 Computer Aided Drafting	Certificate	46	20	20
Salina Area Tech School	CIP 15.1302 Computer Aided Drafting	Degree – AAS	61	20	20
Kaw Area Technical	CIP 15.1302 Technical Drafting	Certificate	48	**	**
Kansas City Kansas	CIP 15.1302 Drafting (Computer Aided Design)	Degree- AAS	63	**	**

*Upon contacting institution – program is no longer actively offered.

** Upon contacting institution – numbers were not available

Collaboration

The Computer Aided Drafting Program was developed to fulfill the common measures outlined in the Community Based Job Training grant that was awarded to Barton Community College by the U.S. Department of Labor.

In order to accomplish the goals of the grant, Barton Community College collaborated with a wide range of partners including Hutchinson Community College, North Central Kansas Technical College, Kansas Department of Corrections, Kansas Juvenile Justice Authority, Central Kansas Community Corrections, Kansas Department of Commerce, the Local Workforce Investment Boards, and numerous members of the business and industry community from across the state of Kansas.

In order to solicit business and industry input, Barton Community College established a Computer Aided Drafting Advisory Board. Members of the board were selected from the Barton service area and represent different areas of the drafting industry. This board was a guiding force in the development of the courses contained in the computer aided drafting certificate.

Program Information

Drafting Curriculum Course Descriptions

BSTC 1036-Computer Concepts and Applications: This course is an introduction to basic computer concepts and includes hands-on use of microcomputers using common software applications. These software applications include typical features of office suites such as word processing, spreadsheets, database systems, presentation software, browsers, and other features found in current software packages. On course completion, students will understand common computer concepts and will be able to utilize common software applications.

DRAF 1800-Technical Drafting I: An exploratory course in the study of drafting fundamentals and techniques. The work is related to industrial job applications in the following areas: orthographic, projections, sketching, sectional views, pictorial representations, dimensioning, working drawings, basic descriptive geometry, freehand and mechanical lettering.

DRAF 1840-Computer Aided Draft/Design I: This course is a study of the basic elements in Computer Aided Drafting and Design. Instruction in the use of the computer, software, digitizer, and plotter will be presented. Selected drawings and design problems in engineering, architecture, and mechanical parts will be constructed.

DRAF 1841-Computer Aided Draft/Design II: This course is a continuation of instruction in the use of the computer and how it is utilized in the field of drafting and design. Selected drawing and design projects will be constructed to provide the student with depth in the area of drawing using a computer and how it is used in the industry.

MATH 1806-Technical Math: This course covers the mathematics needed by students enrolled in technical or trade programs. The emphasis will be on application in solving problems encountered in vocational fields; the student will be exposed to a broad coverage of arithmetic, algebra, geometry and basic statistics. The metric system and measurement techniques will also be covered.

ENGL 1236-Technical Communications: This course is designed primarily for the student who needs training and practice in writing skills pertaining to his own field. It will involve familiarity with the journals, with research techniques, report and letter writing, and basic mechanical skills.

DRAF Descriptive Geometry (new course): This course involves an examination of the graphical solution to problems involving points, lines, and planes in space. This will include principal, primary, and oblique views, intersections, warped surfaces, and surface developments.

Program of Study/Certification Plan

It is anticipated that the certification program will be delivered in a variety of venues, timeframes and locations. Students will participate in 21 credits of study.

Competency Profile

Upon completion of the computer aided drafting program, students will demonstrate proficiency in the following competencies:

BSTC 1036 – Computer Concepts & Application

Hardware

- Understand specifications and configurations of computer hardware.
- Define computer hardware concepts and terminology
- Illustrate various configurations for hardware components
- Identify current and emerging hardware technologies

Software

- Understand and identify the functions of system and application software.
- Define and identify the major classes of software
- Define programming concepts

Operating Systems and Systems Software

- Understand and identify the major roles of operating systems and systems software.
- Be able to utilize system software to execute a common set of applications

- Identify advanced operating system and utility features
- Use advanced operating system and utility features

Internet

- Understand the impact and use of the Internet.
- Define Internet concepts and terminology
- Identify current and emerging Internet capabilities
- Use current and emerging Internet capabilities

Word-processing

- Use word-processing software to create, edit and produce professional looking documents.
- Define word-processing concepts and terminology
- Create, modify, save and output professional looking documents
- Use advanced word-processing application features.

Spreadsheets

- Create spreadsheets and charts to analyze, investigate and/or interpret numerical and financial data to support problem-solving process.
- Define spreadsheet concepts and terminology
- Create, modify, save and output professional looking documents
- Use advanced spreadsheet application features

Database

- Design, create and maintain a database that provides easy access to information in multiple dimensions.
- Define database concepts and terminology
- Design, create, modify, save, query and output database information
- Use advanced database application features

Presentation

- Use presentation software to create, edit and produce professional looking presentations.
- Define presentation concepts and terminology
- Create modify, save and output professional looking presentations
- Use advanced presentation application features

Integration

- Understand integration applications software.
- Define integration concepts and terminology
- Identify current and emerging integration capabilities
- Use current and emerging integration capabilities

Ethical Issues and Concepts

- Understand ethical and social standards of conduct regarding the use of technology.
- Define ethical and social concepts of technology use
- Define ethical and social standards of conduct when using technology

DRAF 1800 - Technical Drafting I

1. Apply vocabulary in both lay and technical terms
2. Exhibit basic core employability skills.
3. Develop organized task scheduling.
4. Demonstrate analytical problem solving skills.
5. Investigate current and projected careers, materials, and products.
6. Produce drawings using various measuring scales.
7. Identify and demonstrate use of precision measuring instruments.
8. Apply mathematical calculations for proper view placement.

9. Convert standard measuring systems to metric system.
10. Apply algebraic formulas in geometric construction.
11. Identify and demonstrate use of drafting tools and equipment and computer.
12. Maintain and service drafting equipment.
13. Utilize ANSI Manuals and Standards catalog.
14. Identify the different types of media used in drafting.
15. Produce clear legible freehand lettering.
16. Construct various geometric shapes.
17. Demonstrate proficiency in the use of reproduction equipment.
18. Identify the alphabet of lines.
19. Demonstrate the use and application of proper lines.
20. Demonstrate proper sheet layout, format, and title block.
21. List the order of precedence of lines.
22. Demonstrate the correct order of drawing procedure.
23. Execute the construction of drawings using orthographic projection.
24. Determine position dimensions for various geometric shapes.
25. Dimension an object completely using ANSI standards.
26. Apply proper notes and symbols when dimensioning.
27. List a systematic order for dimensioning a drawing.
28. Research a drafting related topic for a class presentation.

DRAF 1840 - Computer Aided Drafting & Design I

1. Identify the components of a CADD system
2. Format a diskette on which to save drawings
3. Apply commands of new, open, save, and exit
4. Apply commands of help, cancel, undo, and redo
5. Apply the commands of line, arc, circle, donut, and rectangle.
6. Apply the commands of array, copy, mirror, chamfer, and fillet
7. Apply the commands of erase, break, trim, align, move and stretch
8. Apply commands of redraw, zoom, and pan
9. Utilize commands which format the size and scale of drawings
10. Apply dimensions and text to drawings
11. Edit text and dimensions on a drawing
12. Edit objects through the use of Grips
13. Make drawings more precise through the use of AutoCAD features such as Object Snaps, Polar Tracking, and Object Snap Tracking
14. Gain information from objects through inquiry tools such as ID, List, Distance, Area, and Properties
15. Create and edit polylines
16. Create and insert block references
17. Create a drawing template
18. Organize block with tool Palettes
19. Plot a drawing from the screen to the plotter.
20. Use Paper Space Layouts to plot
21. Apply appropriate mathematical calculations to establish drawing coordinates and geometric shapes

22. Research a drafting related occupation of computer-aided drafting topic to present to the class
23. Work together with others as a team member

DRAF 1841 – Computer Aided Drafting & Design II

1. Construct and edit drawings using basic AutoCAD commands
2. Create complex prototype drawings
3. Perform advanced plotting and techniques
4. Create a three dimensional isometric drawings
5. Perform calculations using AutoCAD
6. Use right-click shortcut menus
7. Create designs, drawings, and complex shapes
8. Create complex polylines and boundaries
9. Create regions
10. Create text fields
11. Create AutoCAD tables
12. Create and insert dynamic blocks
13. Block attributes – Define, insert, edit, and extract
14. External references (xrefs)
15. Perform advanced dimensioning techniques
16. Perform 3D revolutions
17. Apply various hatching techniques
18. Customize AutoCAD – create custom commands, toolbars, and menus
19. Demonstrate a knowledge of employment opportunities and/or AutoCAD certification requirements utilizing a class presentation
20. Work together with others as a team member

MATH 1806 – Technical Math

1. Perform arithmetic operations according to the rules of order of operations
2. Calculate perimeter, area and volume of geometric objects
3. Use appropriate formulas to solve problems
4. Convert between fractions and decimal numbers
5. Perform arithmetic operations containing decimals
6. Round numbers to the correct number of significant figures
7. Change a percent to a decimal
8. Change a decimal to a percent
9. Change a fraction to a percent
10. Change a percent to a fraction
11. Solve problems involving percent, rate and base
12. Perform arithmetic operations with signed numbers
13. Perform arithmetic operations containing fractions
14. Perform calculations with powers of 10
15. Write a decimal number in scientific notation
16. Write a number in scientific notation in decimal form
17. Record measurements in English and metric systems
18. Convert measurements within and between systems

19. Develop and use strategies to estimate computations and to judge the reasonableness of those results
20. Solve problems involving proportions and percentages
21. Solve application problems involving basic arithmetic operations, measurement, and percentage
22. Simplify algebraic expressions
23. Use formulas to solve for an unknown quantity
24. Express ratios of two items
25. Solve proportions
26. Solve linear equations
27. Solve application problems yielding linear equations
28. Calculate the slope of a straight line
29. Calculate perimeter and area of a triangle
30. Calculate the circumference and area of a circle
31. Calculate volume and surface area of cylinders, pyramids, cones and spheres
32. Calculate trigonometric ratios from the sides of a right triangle
33. Solve all sides and angles of a right triangle
34. Calculate the mean, median, range and inner-quartile range of data

ENGL 1236 – Technical Communications

1. Basic skills which include reading, writing, arithmetic and mathematical computations, listening, and speaking.
2. Thinking skills which will include thinking creatively, making decisions, solving problems, visualizing and knowing how to learn and reason.
3. Exhibiting personal qualities which will include responsibility, self-esteem, sociability, self-management, integrity, and honesty.
4. Identifying, organizing, planning the allocation of resources.
5. Demonstrating interpersonal skills through working with others.
6. Acquiring and using information.
7. Understanding complex interrelations.

DRAF xxx – Descriptive Geometry

1. Demonstrate analytic problem solving skills.
2. Apply mathematical calculations for proper view placement.
3. Convert standard measuring systems to metric system.
4. Apply algebraic formulas in geometric construction.
5. Identify and demonstrate use of drafting tools/equipment and computer.
6. Solve problems with auxiliary views and revolved views.
7. Solve for the true length and true size of lines and planes.
8. Solve for the true slope, grade, and bearing of planes.
9. Calculate and implement the use of rise and run.
10. Determine the edge view of planes.
11. Determine the views, slopes, and bearing of the shortest possible distance between two lines.
12. Determine the views, slopes and bearing of the shortest possible distance at a predetermined slope or grade between two lines.

13. Determine the views, slopes, and bearing of a line intersecting two lines at predetermined angles.
14. Determine the views, slopes and bearing of a line or plan making predetermined angles with two given planes.
15. Establish the cut and fill lines of straight, curved, level, or inclined roadways and other shapes
16. Determine the figure of intersection between surfaces, surfaces and solids, and solid and solids.
17. Demonstrate graphical analysis of simple problems.
18. Use concepts of Dimensions and Tolerances.
19. Identify types and applications of fasteners.

Career Cluster and Pathway

Career Cluster – Architecture, Construction, and Industrial Manufacturing
 Pathway – Design and Pre-Construction

Curriculum Integration Plan

Since this is a certificate program, there are no plans at present to create a 2+2 agreement with a university. The availability of the certificate program will enhance the institution’s articulation agreements with area high schools. Given the appropriate articulated courses, high school students will have the opportunity to complete a certificate in drafting sooner if utilizing articulated credit.

Specialized Accreditation

There is not an accrediting agency for this certificate program.

Industry-Recognized Credentials

There is not a recognized credential for this certificate program.

SYLLABI

Please see Appendix B for all syllabi for the proposed Computer Aided Drafting Certificate Program.

**21-hour Certificate
 Computer Aided Drafting**

Major Requirements				
<input type="checkbox"/>	BSTC	1036	Computer Concepts & Applications	3
<input type="checkbox"/>	DRAF	1800	Technical Drafting I	3
<input type="checkbox"/>	DRAF	1840	Computer Aided Draft/Design I	3
<input type="checkbox"/>	DRAF	1841	Computer Aided Draft/Design II	3
<input type="checkbox"/>	MATH	1806	Technical Math	3
<input type="checkbox"/>	ENGL	1236	Technical Communications	3
<input type="checkbox"/>	DRAF		Descriptive Geometry	3
TOTAL				21

Faculty

Qualifications and/or Certifications

When determining acceptable qualification of Barton's faculty, the institution gives primary consideration to the highest earned degree in the discipline in accordance with the Higher Learning Commission. Barton also considers competence and effectiveness, including appropriate, undergraduate and graduate degrees, related work experiences in the field, professional licensure and certifications.

Credential Guidelines

Faculty teaching in professional, occupational or technical areas that are components of associate degree programs not usually resulting in college transfer (unless the accrediting body of specific program required a higher level degree):

Baccalaureate degree and, appropriate certifications in the occupational field of teaching

Barton's plan for the employment of faculty in this certificate program is to actively pursue applicants that are currently employed in the field. In all cases, the institution is responsible for justifying and documenting qualifications of the faculty members.

Cost and Funding for Proposed Program

Adequate Resources

All equipment costs and supplies will be provided by the Community Based Job Training Grant. The only college-related anticipated expense will be associate faculty pay.

CA-1a Form

See Appendix C for CA-1a Form

Grants/Outside Funding Sources

Funds set aside in the Community Based Job Training grant awarded to Barton Community College will fund the development of the Computer Aided Drafting Certificate Program.

Program Review and Assessment

Program Assessment

Individual courses within the program will be assessed using Barton student evaluations. This program is part of the career technical training offered through the Community Based Job Training Grant. As part of the grant, Barton will track and report success in individual courses, the program as a whole and success in pursuing and obtaining employment in the drafting field.

Program Review

In the past, Barton Community College administered program reviews every year. Program reviews at the institution have been on hold while awaiting the new KBOR program review model. In its absence, our institution plans to enhance our current model this fall. The model will fulfill Perkins requirements, while also addressing in-depth review of the program's

marketing, curriculum, retention and financial impact. All advisory boards will participate in the program review process.

Evaluation

Students will evaluate the courses and instructors at the conclusion of each course offered in the Computer Aided Drafting Certificate program. The Executive Director of Business, Technology & Community Education will be responsible for continual evaluation of the viability and rigor of this certificate program.

Program Approval at the Institution Level

Institutional Approval Process

The drafting advisory board meeting was held on June 22, 2009

The proposed program application documentation has been submitted to the following entities at Barton:

- August 5, 2009 – Program of Study Team
- August 27, 2009 – Learning and Instruction Curriculum Committee
 - This Committee approves new programs and new course curriculum
- September 1, 2009 - President's Staff
- September 3, 2009 - Board of Trustees Study Session
- September 17, 2009 – Board of Trustees

Minutes

See appendix D for required Minutes

Perkins Verification Form

See appendix E for Perkins Verification Form. Barton would like to seek Perkins approval for the proposed drafting certificate program.

APPENDIX A

Industry Support Letters

August 17, 2009

Re: CBJT – Computer Aided Drafting Program

To Whom It May Concern:

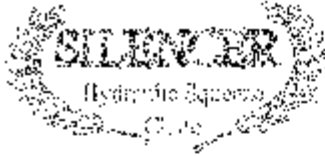
I am writing this letter to show my support for the proposed Computer Aided Drafting Program, which is to be funded by the Community Based Job Training Grant. One can see from the subject matter to be taught, graduates will leave the program prepared to enter the workforce and with the necessary job knowledge and skills required to secure relevant employment.

In further support of the Program, A-1 Plank & Scaffold Mfg., Inc. is eager to review applications from qualified graduates, and if the need is available and the market conditions warrant, A-1 Plank would be willing to extend a job offer to the most qualified applicant.

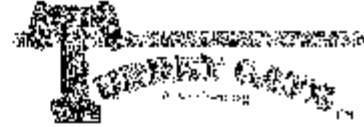
If any further information is need, please feel free to contact me at the phone number listed above.

Regards,

Darryl Younger
Director of Operations
A-1 Plank & Scaffold Mfg., Inc.



MOLY MANUFACTURING, INC.
2435 10th Rd
Lorraine, KS 67459



The Industry Standard in Livestock Handling Equipment.

June 30, 2009

Mr. David C. Miller
Barton County Community College
Great Bend, Kansas

Those individuals educated in Computer Aided Drafting would be most welcome to pursue employment with Moly Mfg., Inc.. As an original manufacturer, skilled CAD people are required for the operation and well being of Moly Mfg., and, as such, are compensated well.

We look forward to your efforts pursuing the CBIT grant funding for the Computer Aided Drafting program.

Respectfully,

Jon D. Mollhagen, President
Moly Mfg., Inc.

(785) 472-3388 • FAX (785) 472-2579
www.molyinc.com



P.O. Box 843 / Hays, Kansas 67601 / (785) 625-9295 / (785) 625-4030 fax

August 26, 2009

Barton Community College
Attn: David Miller
245 NE 30 Rd.
Great Bend, KS 67550

To Whom It May Concern:

I am writing this letter to show my support for the proposed Computer Aided Drafting Program, which is to be funded by the Community Based Job Training Grant. One can see from the subject matter to be taught, graduates will leave the program prepared to enter the workforce and with necessary job knowledge and skills required to secure relevant employment.

In further support of the Program, Hess Services, Inc. is eager to review applications from qualified graduates, and if the need is available and the market conditions warrant, Hess Services, Inc., would be willing to extend a job offer to the most qualified applicant if an open position arises.

If any further information is needed, please feel free to contact me.

Sincerely,

Hess Services, Inc.

A handwritten signature in cursive script that reads "Allyssa B. Weigel".

ALLYSSA B. WEIGEL
Human Resource Manager

APPENDIX B

Certificate Program Syllabi

**BARTON COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS
SPRING 2009**

I. GENERAL COURSE INFORMATION

Course Number: BSTC 1036
Course Title: Computer Concepts and Applications
Credit Hours: 3
Prerequisites: None
Division/Discipline: Workforce Training and Community Education
Course Description: This course is an introduction to the most common software applications and includes hands-on use of microcomputers and some of the major commercial software. These software packages should include typical features of office suites such as word processing, spreadsheets, database systems, and other features found in current software packages. On course completion, students will understand common applications and be able to use selected features of these packages.

II. CLASSROOM POLICY

Students and faculty of Barton County Community College constitute a special community engaged in the process of education. The college assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense and respect for others both within and outside the classroom.

The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College Catalog.

Plagiarism on any academic endeavors at Barton County Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course serves as an introduction to microcomputers for individuals who will be working with the microcomputer on an everyday basis—either on the job or at home. The course is also geared for those individuals wishing to become familiar with a microcomputer. This course has applications in all areas under a general education curriculum. It fulfills the needs of those individuals whose major concern is to utilize a computer supported by commercially available software, rather than programming. The

class gives the student the opportunity to gain “hands-on” experience using a microcomputer in the areas of word-processing, spreadsheet and database. Computers as communication devices will also be addressed—how to access vast sources of information through a large network of computers called the Internet, and how to perform file-to-file transfers from one computer to another.

Please contact instructor for transferability. The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. Students are responsible to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses for the transfer program.

IV. COURSE OUTCOMES:

Upon completion of this course, the student will be able to:

1. Identify computer hardware components.
2. List and describe common workplace and household uses of microcomputers.
3. Demonstrate a basic skill set typically required of entry-level employees in business and industry settings who use a microcomputer to prepare documents using word processing, spreadsheet, and database computer applications software.

V. COURSE COMPETENCIES:

Successful completion of this course will require demonstrated proficiency at a minimum level of mastery of the following competencies:

Hardware

- Understand specifications and configurations of computer hardware.
- Define computer hardware concepts and terminology
- Illustrate various configurations for hardware components
- Identify current and emerging hardware technologies

Software

- Understand and identify the functions of system and application software.
- Define and identify the major classes of software
- Define programming concepts

Operating Systems and Systems Software

- Understand and identify the major roles of operating systems and systems software.
- Be able to utilize system software to execute a common set of applications
- Identify advanced operating system and utility features
- Use advanced operating system and utility features

Internet

- Understand the impact and use of the Internet.
- Define Internet concepts and terminology
- Identify current and emerging Internet capabilities
- Use current and emerging Internet capabilities

Word-processing

- Use word-processing software to create, edit and produce professional looking documents.
- Define word-processing concepts and terminology
- Create, modify, save and output professional looking documents
- Use advanced word-processing application features.

Spreadsheets

- Create spreadsheets and charts to analyze, investigate and/or interpret numerical and financial data to support problem-solving process.
- Define spreadsheet concepts and terminology
- Create, modify, save and output professional looking documents
- Use advanced spreadsheet application features

Database

- Design, create and maintain a database that provides easy access to information in multiple dimensions.
- Define database concepts and terminology
- Design, create, modify, save, query and output database information
- Use advanced database application features

Presentation

- Use presentation software to create, edit and produce professional looking presentations.
- Define presentation concepts and terminology
- Create modify, save and output professional looking presentations
- Use advanced presentation application features

Integration

- Understand integration applications software.
- Define integration concepts and terminology
- Identify current and emerging integration capabilities
- Use current and emerging integration capabilities

Ethical Issues and Concepts

- Understand ethical and social standards of conduct regarding the use of technology.
- Define ethical and social concepts of technology use
- Define ethical and social standards of conduct when using technology

INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS

Each student is expected to complete every assigned activity and demonstrate mastery of each course competency according to the course schedule. In a structured, time-based section of this course, each student is expected to attend every mandatory class session. In course sections, which are evaluated solely through assessments of achievement of course competencies; each student is expected to fulfill course requirements as directed by the instructor.

Lab time will be given to work on the various assignments. This may or may not be enough time to adequately complete the projects. Be prepared to spend time outside of class to bring a project to satisfactory completion.

Late homework will not be accepted. (Refer to the Attendance policy for more details)

Cell phones, PDA's, etc. must be shut-off, music players with headphones are NOT allowed in class. Any use of these devices will result in becoming my property until the end of class.

Instant message and checking email during class is not allowed. (includes Yahoo, Hotmail, Facebook, My Space, etc.)

No food, drinks, or gum is allowed in the computer labs. Please leave all food outside of the classroom, both opened and unopened.

Students are responsible for ALL announcements made in class (whether the student is in attendance or not).

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

Gary B. Shelly, Thomas J. Cashman, Misty E. Vermaat. Microsoft Office 2007 Introductory Concepts and Techniques-Enhanced Edition, Course Technology, 2008.

Memory stick (preferred) or Three 3.5 inch floppy diskettes

REFERENCES

None

IX. METHODS OF INSTRUCTION AND EVALUATION

Lecture, demonstrations, class discussions, projects and tests

Grading Scale:

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Homework/Attendance/Class Participation 500 points

Test/Quizzes 500 points

(Attendance is worth 100 points, equal to one exam. Each missed classes 20 points will be deducted from the attendance points)

X. ATTENDANCE REQUIREMENTS

Regular attendance in class is an obligation assumed by each student at the time of registration. It is the student's responsibility to fulfill all the requirements of a course as prescribed by the instructor. If a student must miss a class, arrangements should be made in advance with the instructor. Instructors have the responsibility to provide the opportunity for students to make up in a reasonable and appropriate manner work missed for a school-related activity, verifiable illness, personal emergency, for death of a family member or close friend within the time frame established by the instructor. A published

procedure allows students to address inequities in this policy. Refer to college's Attendance Policy for guidelines.

In time-based courses, arrangements for making up assignments must be scheduled with the instructor prior to missing class and provide good cause of absence. Extra time for assignments will not be given for spontaneously missed days. In competency-based sections, the instructor will establish dates when each student will be expected to demonstrate master of specific competencies. Students are only allowed one make-up exam. The exam must be taken within one week of the original exam. Quizzes cannot be made-up. Final exams will not be scheduled early.

XI. Course Outline

1. Essential Introduction to Computers
2. Windows 2000 and Microsoft Office XP
3. Creating and Editing a Word Document
4. Creating a Research Paper
5. Using a Wizard to Create a Resume
6. Creating a Cover Letter with a Table
7. Creating a Worksheet and Embedded Chart
8. Formulas, Functions, Formatting and Web Queries
9. What-If Analysis, Charting, and Working with Large Worksheets
10. Creating a Database Using Design and Datasheet Views
11. Querying a Database Using the Select Query Window
12. Maintaining a Database Using the Design and Update Features of Access
13. Using a Design Template and AutoLayouts to Create a Presentation
14. Using Outline View and Clip Art to Create a Slide Show

THIS SYLLABUS IS SUBJECT TO CHANGE AT ANY TIME AT THE DISCRETION OF THE INSTRUCTOR.

Barton County Community College
Course Syllabus
Spring, 1999

I. GENERAL COURSE INFORMATION

Course Number: DRAF1800

Course Title: Technical Drafting I

Hours Credit: 3

Prerequisite: None

Division & Discipline: Technical Education - Drafting Technology

Course Description: An exploratory course in the study of drafting fundamentals and techniques. The work is related to industrial job applications in the following areas: orthographic, projections, sketching, sectional views, pictorial representations, dimensioning, working drawings, basic descriptive geometry, freehand and mechanical lettering.

II. CLASSROOM POLICY

Students and faculty of Barton County Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College catalog.

Plagiarism on any academic endeavors at Barton County Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Technical Drafting I is a required course for drafting technology majors. It is highly recommended for individuals entering the fields of machine technology, auto technology, building construction, architecture, interior design, engineering, and industrial arts. This

course transfers either as an elective or as a course meeting program requirements. Students should contact their transfer institution to verify transferability.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton County Community College assesses student learning at several levels: institutional, program, degree and classroom. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. Results of these activities will be used to improve the content and delivery of Barton's instructional program.

1. Exhibit basic employability skills
2. Develop problem solving skills
3. Investigate drafting related career opportunities
4. Produce drawings using various scales of measure
5. Utilize precision measuring instruments
6. Apply mathematical calculations and algebraic formulas
7. Produce neat drawings and lettering
8. Identify various drafting media and tools
9. Utilize correct drawing procedure
10. Construct various basic geometric shapes
11. Apply orthographic projection technology
12. Utilize ANSI manuals and other standards as resources
13. Apply proper dimensions and notes to drawings

V. COURSE COMPETENCIES

1. Apply vocabulary in both lay and technical terms
2. Exhibit basic core employability skills.
3. Develop organized task scheduling.
4. Demonstrate analytical problem solving skills.
5. Investigate current and projected careers, materials, and products.
6. Produce drawings using various measuring scales.
7. Identify and demonstrate use of precision measuring instruments.
8. Apply mathematical calculations for proper view placement.
9. Convert standard measuring systems to metric system.
10. Apply algebraic formulas in geometric construction.
11. Identify and demonstrate use of drafting tools and equipment and computer.
12. Maintain and service drafting equipment.
13. Utilize ANSI Manuals and Standards catalog.
14. Identify the different types of media used in drafting.
15. Produce clear legible freehand lettering.
16. Construct various geometric shapes.
17. Demonstrate proficiency in the use of reproduction equipment.
18. Identify the alphabet of lines.
19. Demonstrate the use and application of proper lines.

20. Demonstrate proper sheet layout, format, and title block.
21. List the order of precedence of lines.
22. Demonstrate the correct order of drawing procedure.
23. Execute the construction of drawings using orthographic projection.
24. Determine position dimensions for various geometric shapes.
25. Dimension an object completely using ANSI standards.
26. Apply proper notes and symbols when dimensioning.
27. List a systematic order for dimensioning a drawing.
28. Research a drafting related topic for a class presentation.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

Each student is expected to attend lecture, drafting and test sessions. It is necessary for the student to read the assigned work and complete the assigned drafting projects to receive credit for the course.

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

French, Thomas E. and Vierck, Charles J. Engineering Drawing & Graphic Technology. New York, NY: McGraw-Hill Book Co., 14th edition, 1993.

Eight sheets 17 x 22 vellum, standard and metric rulers, four pencils (H, 2H, 4H, 6H) OR mechanical pencil set (0.5, 0.7, 0.9 mm), one 6" bow compass or circle template, one 6" dividers, one eraser shield, and drafting or masking tape.

VIII. REFERENCES

Military Standards, ANSI Standards, and numerous other references in the drafting lab and office.

IX. METHODS OF EVALUATION

Most drawings will be reproduced for evaluation. Drawings are evaluated on accuracy, layout, neatness, time, and lettering. An overall grade will be assigned for each drawing. Tests will be administered over assigned reading and projects.

A = 92 to 100

B = 80 to 91

C = 71 to 79

D = 61 to 70

F = 60 & below

X. ATTENDANCE REQUIREMENTS

Regular attendance in class and laboratory sessions is an obligation assumed by each student at the time of registration. It is the student's responsibility to fulfill all the

requirements of a course as prescribed by the instructor. If a student must miss a class, arrangements should be made in advance with the instructor. Instructors have the responsibility to provide the opportunity for students to make up in a reasonable and appropriate manner work missed for a school-related activity, verifiable illness, personal emergency, or death of a family member or close friend within the time frame established by the instructor. A published procedure allows students to address inequities in this policy.

XI. COURSE OUTLINE

1. Duties and responsibilities of the draftsman
2. Drafting skills and drawing practices
3. Various types of drafting media and equipment
4. Alphabet of lines
5. Lettering
6. Principles of shape description
7. Applied geometry
8. Orthographic projection
9. Dimensioning
10. Production of drawings
11. Research of a drafting related topic for class presentation

**Barton County Community College
Course Syllabus**

I. GENERAL COURSE INFORMATION

Course Number: DRAF 1840

Course Title: Computer-Aided Drafting and Design I

Hours Credit: 3

Prerequisite: DRAF1800 - Technical Drafting I, or equivalent or consent of instructor

Division & Discipline: Workforce Training and Community Education/Drafting

Course Description: This course is a study of the basic elements in Computer Aided Drafting and Design. Instruction in the use of the computer, software, digitizer, and plotter will be presented. Selected drawings and design problems in engineering, architecture, and mechanical parts will be constructed.

II. CLASSROOM POLICY

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This is one of a series of technical courses for the Drafting Technology program. This course is designed to develop useful, job-oriented skills. It is highly recommended for individuals entering the fields of architecture, drafting, engineering, interior decorating and design, or the machine trades. If students are planning to enter an engineering program at a university, each student should verify with the transfer university how this course will transfer.

The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. Students are responsible to

obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Barton County Community College assesses student learning at several levels: institutional, program, degree and classroom. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. Results of these activities will be used to improve the content and delivery of Barton's instructional program.

Course Outcomes

After completion of this course students will:

1. Manipulate drafting files.
3. Draw utilizing various linetypes.
4. Construct circles, arcs, and other various shapes.
5. Utilize various editing commands.
6. Use dimensioning commands.
7. Establish drawing sizes and scales.
8. Apply text to drawings.
9. Use layers and colors.
10. Utilize resources.
11. Use the plotter.

V. COURSE COMPETENCIES

Core Competencies

1. Identify the components of a CADD system
2. Format a diskette on which to save drawings
3. Apply commands of new, open, save, and exit
4. Apply commands of help, cancel, undo, and redo
5. Apply the commands of line, arc, circle, donut, and rectangle.
6. Apply the commands of array, copy, mirror, chamfer, and fillet
7. Apply the commands of erase, break, trim, align, move and stretch
8. Apply commands of redraw, zoom, and pan
9. Utilize commands which format the size and scale of drawings
10. Apply dimensions and text to drawings
11. Edit text and dimensions on a drawing
12. Edit objects through the use of Grips
13. Make drawings more precise through the use of AutoCAD features such as Object Snaps, Polar Tracking, and Object Snap Tracking
14. Gain information from objects through inquiry tools such as ID, List, Distance, Area, and Properties
15. Create and edit polylines
16. Create and insert block references

17. Create a drawing template
18. Organize block with tool Palettes
19. Plot a drawing from the screen to the plotter.
20. Use Paper Space Layouts to plot
21. Apply appropriate mathematical calculations to establish drawing coordinates and geometric shapes
22. Research a drafting related occupation of computer-aided drafting topic to present to the class
23. Work together with others as a team member

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS

Each student is expected to attend lecture, drafting and test sessions. It is necessary for the student to read the assigned work, complete assigned unit questions and the assigned drafting projects to receive credit for the course. Students need to arrive to class with a positive attitude and with completed homework assignments.

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

To be determined

VIII. REFERENCES

None

IX. METHODS OF EVALUATION

Drawings will be evaluated on accuracy, layout, neatness, time, and lettering. An overall grade will be assigned for the drawing. Tests will be administered over assigned reading and projects.

A = 92 to 100

B = 80 to 91

C = 70 to 79

D = 61 to 69

F - 60 & below

X. ATTENDANCE REQUIREMENTS

Regular attendance in class and laboratory sessions is an obligation assumed by each student at the time of registration. It is the student's responsibility to fulfill all the requirements of a course as prescribed by the instructor. If a student must miss a class, arrangements should be made in advance with the instructor. Instructors have the responsibility to provide the opportunity for students to make up in a reasonable and appropriate manner work missed for a school-related activity, verifiable illness, personal

emergency, or death of a family member or close friend within the time frame established by the instructor. A published procedure allows students to address inequities in this policy.

XI. COURSE OUTLINE
To be determined

Barton County Community College Course Syllabus

I. GENERAL COURSE INFORMATION

Course Number: DRAF 1841

Course Title: Computer-Aided Drafting and Design II

Hours Credit: 3

Prerequisite: DRAF1800 - Technical Drafting I, or equivalent, DRAF 1840 Computer Aided Drafting and Design I, or consent of instructor

Division & Discipline: Workforce Training and Community Education/Drafting

Course Description: This course is a continuation of instruction in the use of the computer and how it is utilized in the field of drafting and design. Selected drawing and design projects will be constructed to provide the student with depth in the area of drawing using a computer and how it is used in the industry.

II. CLASSROOM POLICY

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This is one of a series of technical courses for the Drafting Technology program. This course is designed to develop useful, job-oriented skills. It is highly recommended for individuals entering the fields of architecture, drafting, engineering, interior decorating and design, or the machine trades. If students are planning to enter an engineering program at a university, each student should verify with the transfer university how this course will transfer.

The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional

requirements may also change without prior notification. Students are responsible to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton County Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes

After completing this course students will:

1. Review basic skills learned in prerequisite courses
2. Render 3-D drawings using AutoCad
3. Render technical illustrations using AutoCad
4. Solve machinery problems using AutoCad

V. COURSE COMPETENCIES

Core Competencies

21. Construct and edit drawings using basic AutoCad commands
22. Create complex prototype drawings
23. Perform advanced plotting and techniques
24. Create a three dimensional isometric drawings
25. Perform calculations using AutoCAD
26. Use right-click shortcut menus
27. Create designs, drawings, and complex shapes
28. Create complex polylines and boundaries
29. Create regions
30. Create text fields
31. Create AutoCAD tables
32. Create and insert dynamic blocks
33. Block attributes – Define, insert, edit, and extract
34. External references (xrefs)
35. Perform advanced dimensioning techniques
36. Perform 3D revolutions
37. Apply various hatching techniques
38. Customize AutoCAD – create custom commands, toolbars, and menus
39. Demonstrate a knowledge of employment opportunities and/or AutoCAD certification requirements utilizing a class presentation
40. Work together with others as a team member

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS

Each student is expected to attend lecture, drafting and test sessions. It is necessary for the student to read the assigned work, complete assigned unit questions and the assigned drafting projects to receive credit for the course. Students need to arrive to class with a positive attitude and with completed homework assignments.

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

To be determined

VIII. REFERENCES

None

IX. METHODS OF EVALUATION

Drawings will be evaluated on accuracy, layout, neatness, time, and lettering. An overall grade will be assigned for the drawing. Tests will be administered over assigned reading and projects.

A - 92 to 100

B - 80 to 91

C - 70 to 79

D - 61 to 69

F - 60 & below

X. ATTENDANCE REQUIREMENTS

Regular attendance in class and laboratory sessions is an obligation assumed by each student at the time of registration. It is the student's responsibility to fulfill all the requirements of a course as prescribed by the instructor. If a student must miss a class, arrangements should be made in advance with the instructor. Instructors have the responsibility to provide the opportunity for students to make up in a reasonable and appropriate manner work missed for a school-related activity, verifiable illness, personal emergency, or death of a family member or close friend within the time frame established by the instructor. A published procedure allows students to address inequities in this policy.

XI. COURSE OUTLINE

To be determined

**Barton County Community College
Course Syllabus**

I. GENERAL COURSE INFORMATION

Course Number: MATH 1806

Course Title: Technical Mathematics

Credit Hours: 3

Prerequisites: MATH 1809 Basic Applied Mathematics or MATH 1811 Preparatory Mathematics with a grade of C or better, *or* an appropriate ASSET, ACT, SAT, or Accuplacer score

Division/Discipline: Academic/Mathematics

Course Description: This course covers the mathematics needed by students enrolled in technical or trade programs. The emphasis will be on application in solving problems encountered in vocational fields; the student will be exposed to a broad coverage of arithmetic, algebra, geometry and basic statistics. The metric system and measurement techniques will also be covered.

II. CLASSROOM POLICY

Students and faculty of Barton County Community College constitute a special community engaged in the process of education. To enhance this process, the College assumes that its students and faculty will demonstrate a code of personal honor which is based on integrity, common sense, and respect for others both in and out of the classroom.

The College does reserve the right to suspend or expel a student for conduct which is detrimental to the educational endeavor as outlined in the College catalog. Please visit the Barton website at <http://www.bartonccc.edu/> for specific college policy and notices concerning: Non-Discrimination, Civil Rights Act of 1964, (FERPA) Family Educational Rights and Privacy Act, Sexual Harassment, Academic Clemency Policy, and Academic Suspension.

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Technical Mathematics is designed for students in a two-year vocational program whose background in mathematics is only in the arithmetic of whole numbers, fractions and decimals, but nevertheless, want to acquire computational skills useful in their proposed

fields of work. The course is a stand-alone course designed to provide an individual working in a vocational field necessary mathematical skills to function on the job; the course prepares the student to solve applied mathematical problems. This course is not a prerequisite for higher level mathematics courses, nor is it designed to prepare the student for higher level courses.

This course is an approved general education course at Barton. The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Thus, it is the student's responsibility to be in contact with the transfer institution throughout his/her tenure at Barton County Community College to insure that the student is enrolling in the most appropriate set of courses for a transfer program.

<http://www.bartonccc.edu/careercenter/transformation.htm>

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton County Community College assesses student learning at several levels: institutional, program, degree and classroom. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. Results of these activities will be used to improve the content and delivery of Barton's instructional program.

Course Outcomes:

After completion of this course students will:

1. Demonstrate understanding of the "language" of mathematics by their use of symbols, definitions, and word phrases
2. Display proficiency in mathematical computations
3. Implement mathematical techniques to solve applied problems
4. Employ appropriate technology to demonstrate knowledge of mathematical concepts
5. Exhibit mastery of core competencies for the course

V. COURSE COMPETENCIES

35. Perform arithmetic operations according to the rules of order of operations
36. Calculate perimeter, area and volume of geometric objects
37. Use appropriate formulas to solve problems
38. Convert between fractions and decimal numbers
39. Perform arithmetic operations containing decimals
40. Round numbers to the correct number of significant figures
41. Change a percent to a decimal
42. Change a decimal to a percent
43. Change a fraction to a percent
44. Change a percent to a fraction
45. Solve problems involving percent, rate and base
46. Perform arithmetic operations with signed numbers
47. Perform arithmetic operations containing fractions

48. Perform calculations with powers of 10
49. Write a decimal number in scientific notation
50. Write a number in scientific notation in decimal form
51. Record measurements in English and metric systems
52. Convert measurements within and between systems
53. Develop and use strategies to estimate computations and to judge the reasonableness of those results
54. Solve problems involving proportions and percentages
55. Solve application problems involving basic arithmetic operations, measurement, and percentage
56. Simplify algebraic expressions
57. Use formulas to solve for an unknown quantity
58. Express ratios of two items
59. Solve proportions
60. Solve linear equations
61. Solve application problems yielding linear equations
62. Calculate the slope of a straight line
63. Calculate perimeter and area of a triangle
64. Calculate the circumference and area of a circle
65. Calculate volume and surface area of cylinders, pyramids, cones and spheres
66. Calculate trigonometric ratios from the sides of a right triangle
67. Solve all sides and angles of a right triangle
68. Calculate the mean, median, range and inner-quartile range of data

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

Students are individually responsible for:

1. Awareness and comprehension of all course material requirements and assignments presented in this syllabus.
2. Awareness and adherence to all deadlines for the completion of assignments as announced.
3. Awareness of test dates and times as announced.
4. Awareness of adherence to all college policies and regulations regarding academic conduct and social conduct.
5. Awareness and comprehension of substantive material presented in lectures, discussions, handout materials and assigned readings.

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

To be determined

VIII. REFERENCES

None

IX. METHODS OF INSTRUCTION AND EVALUATION

Methods of instruction will include classroom lecture, homework, classroom discussion, hands-on participation, and written exams.

The required percentage necessary for the satisfactory completion of the class is 70 percent. The grading scale is as follows:

90 - 100 A
80 - 89 B
70 - 79 C
60 - 69 D
59 and lower F

All exams will be made up within one week of the class exam date. Arrangements must be made by the student with the instructor to set up the test make-up at a time approved by the instructor.

X. ATTENDANCE REQUIREMENTS

Regular attendance in class and laboratory sessions is an obligation assumed by each student at the time of registration. It is the student's responsibility to fulfill all the requirements of a course as prescribed by the instructor. If a student must miss a class, arrangements should be made in advance with the instructor. Instructors have the responsibility to provide the opportunity for students to make up, in a reasonable and appropriate manner, work missed for a school-related activity, verifiable illness, personal emergency, or death of a family member. A published procedure allows students to address inequities in this policy.

XI. COURSE OUTLINE

To be determined

Barton County Community College
Course Syllabus
Spring 2009

I. GENERAL COURSE INFORMATION

Course Number: ENGL 1236

Course Title: Technical Communications

Credit Hours: 3

Prerequisite: ENGL 1200 Business English, ENGL 1194 Intermediate English, ENGL 1199 Principles of Grammar, or ENGL 1204 English Composition I with a grade of C or better or ACT English Score of 17-36, Accuplacer Sentence Skills Score of 69-120, ASSET Writing Skills Score of 40-54, or COMPASS Writing Skills Score of 65-100.

Division and Discipline: English

Course Description: This course is designed primarily for the student who needs training and practice in writing skills pertaining to his/her own field. It will involve familiarity with the journals, with research techniques, report and letter writing and basic mechanical skills.

II. CLASSROOM POLICY

Students and faculty of Barton County Community College constitute a special community engaged in the process of education. The college assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College Catalog.

Plagiarism on any academic endeavors at Barton County Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE VIEWED IN THE TOTAL CURRICULUM

Today's workplace requires proficiency in written communication skills. The Technical Communications course reflects the principles of English Composition I by applying those principles to job specific tasks. The true test of effective written communication is the development of a message that can be easily read, clearly understood, acceptable to the recipient, and will stimulate the intended response.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton County Community College assesses student learning at several levels: institutional, program, degree and classroom. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. Results of these activities will be used to improve the content and delivery of Barton's instructional program.

1. Use a systematic approach to writing through planning, drafting, and revising.
2. Express ideas through structured methods of development which include narration, description, process analysis, comparison, classification, definition, and causal analysis.
3. Use arguments to effectively communicate messages.
4. Develop paragraphs using correct sentence structure and word choice with appropriate tone and style.
5. Apply systematic writing approach to job-specific tasks.

V. COURSE COMPETENCIES

After successful completion of this course, students should:

8. Define technical writing and its importance in the workplace.
9. Identify the characteristics of technical writing.
10. Compare and contrast technical writing and other types of writing.
11. Identify ethics in technical writing.
12. Determine how to meet the needs of a select and multiple audience.
13. Plan a document's purpose, scope, and medium.
14. Distinguish the differences between researching at school and at work.
15. Identify, locate, and document primary and secondary sources.
16. Evaluate and take notes from sources.
17. Identify a writing process that suits one's own writing style.
18. Plan, draft, and revise a document.
19. Prepare memorandums, letters and email that demonstrate proper format.
20. Design an effective document with appropriate graphics.
21. Determine appropriate formats for instructions.
22. Compose clear and concise instructions.
23. Compose progress and periodic reports.
24. Format, organize, and write an effective resume.
25. Format, organize and write an employment letter of application.
26. Organize and prepare an oral presentation.

27. Demonstrate interpersonal skills through working with others.
28. Apply appropriate technology to a task.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

- A. Students preparing for work or transfer to institutions of higher education are expected to perform, meeting job acceptable standards. Each student is expected to attend class each day. Class preparation and punctuality is a must. Class attendance and participation are extremely important to the learning process.
- B. All assignments are due at the time the instructor gives. Late work **WILL NOT** be accepted. If the student should have a scheduled event on the due date, it is up to the student to turn it in before the due date.

VII. TEXTBOOK AND OTHER REQUIRED MATERIALS

Smith-Worthington, Darlene and Jefferson, Sue. Technical Writing for Success. 2nd Edition. Thomson, South-Western, 2005

VIII. REFERENCES

Various references issued to the student by the instructor.

IX. METHODS OF EVALUATION

Students will be evaluated on individual chapter assignments, group work, outside projects and tests.

The grading scale will be as follows: A=100-90%; B=89-80%; C=79-70%; and D=69-60%.

Homework/Assignments will not be accepted after the designated due date for any reason.

X. ATTENDANCE

Regular and punctual attendance in class is an obligation assumed by a responsible student. In most businesses, absence from work without notification, and consistent late arrivals or early departures is unacceptable. If you know in advance that you will be absent from class you are to notify your instructor. Absences for an extended period of time because of illness or exceptional circumstances will be evaluated on an individual basis and an acceptable make up plan will be devised during a conference between the student and the instructor.

XI. COURSE OUTLINE

- Chapter 1: What is Technical Writing?
- Chapter 2: Plan for Your Audience and Purpose
- Chapter 3: Technical Research
- Chapter 4: The Writing Process
- Chapter 5: Brief Correspondence
- Chapter 6: Document Design and Graphics
- Chapter 7: Instructions
- Chapter 8: Informative Reports
- Chapter 10: Employment Communication
- Chapter 11: Oral Presentations

Barton County Community College Course Syllabus

I. GENERAL COURSE INFORMATION

Course Number: DRAF xxxx

Course Title: Descriptive Geometry

Credit Hours: 3

Prerequisite: MATH 1809 Basic Applied Mathematics or MATH 1811 Preparatory Mathematics with a grade of C or better, *or* an appropriate ASSET, ACT, SAT, or Accuplacer score.

Division/Discipline: Workforce Training and Community Education/Drafting

Course Description: This course involves an examination of the graphical solution to problems involving points, lines and planes in space. This will include principal, primary, and oblique views, intersections, warped surfaces, and surface developments.

II. CLASSROOM POLICY

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The College reserves the right to suspend a student for conduct that is detrimental to the College's educational endeavors as outlined in the College catalog.

Plagiarism on any academic endeavors at Barton County Community College will not be tolerated. Learn the rules of, and avoid instances of, intentional or unintentional plagiarism.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services.

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Descriptive geometry is a required course for those pursuing a certificate in Computer Aided Drafting. It is highly recommended for individuals entering the fields of drafting, building construction, architecture, engineering, and industrial arts. This course transfers either as an elective or as a course meeting program requirements. It is the responsibility of the student to contact their transfer institution to verify transferability.

The transferability of all college courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. Students are responsible to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Barton County Community College assesses student learning at several levels: institutional, program, degree and classroom. The goal of these assessment activities is to improve student learning. As a student in this course, you will participate in various assessment activities. Results of these activities will be used to improve the content and delivery of Barton's instructional program.

Course Outcomes

After completion of this course students will:

1. Demonstrate understanding of the "language" of descriptive geometry.
2. Display proficiency in descriptive geometry computations.
3. Implement geometric techniques to solve drafting problems.
4. Exhibit mastery of core competencies for the course.

V. COURSE COMPETENCIES

Core Competencies

1. Demonstrate analytic problem solving skills.
2. Apply mathematical calculations for proper view placement.
3. Convert standard measuring systems to metric system.
4. Apply algebraic formulas in geometric construction.
5. Identify and demonstrate use of drafting tools/equipment and computer.
6. Solve problems with auxiliary views and revolved views.
7. Solve for the true length and true size of lines and planes.
8. Solve for the true slope, grade, and bearing of planes.
9. Calculate and implement the use of rise and run.
10. Determine the edge view of planes.
11. Determine the views, slopes, and bearing of the shortest possible distance between two lines.
12. Determine the views, slopes and bearing of the shortest possible distance at a predetermined slope or grade between two lines.
13. Determine the views, slopes, and bearing of a line intersecting two lines at predetermined angles.
14. Determine the views, slopes and bearing of a line or plan making predetermined angles with two given planes.
15. Establish the cut and fill lines of straight, curved, level, or inclined roadways and other shapes

16. Determine the figure of intersection between surfaces, surfaces and solids, and solid and solids.
17. Demonstrate graphical analysis of simple problems.
18. Use concepts of Dimensions and Tolerances.
19. Identify types and applications of fasteners.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

Students are individually responsible for:

1. Awareness and comprehension of all course material requirements and assignments presented in this syllabus.
2. Awareness and adherence to all deadlines for the completion of assignments as announced.
3. Awareness of test dates and times as announced.
4. Awareness of adherence to all college policies and regulations regarding academic conduct and social conduct.
5. Awareness and comprehension of substantive material presented in lectures, discussions, handout materials and assigned readings.

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

To be determined

VIII. REFERENCES

None

IX. METHODS OF INSTRUCTION AND EVALUATION

Methods of instruction will include classroom lecture, homework, classroom discussion, hands-on participation, and written exams.

The required percentage necessary for the satisfactory completion of the class is 70 percent. The grading scale is as follows:

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All exams will be made up within one week of the class exam date. Arrangements must be made by the student with the instructor to set up the test make-up at a time approved by the instructor.

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XI. COURSE OUTLINE

To Be Determined

APPENDIX C

CA1-a Form

IMPLEMENTATION YEAR 2009

Fiscal Summary for Proposed Academic Programs

Institution: **Barton County Community College**
 Proposed Program: **Computer Aided Drafting Certificate**

Part I. Anticipated Enrollment	Implementation Year	
	Full-Time	Part-Time
A. Headcount:		25
B. Total SCH taken by all students in program	16	
Part II. Program Cost Projection		
A. In <u>implementation</u> year one, list all identifiable General Use costs to the academic unit(s) and how they will be funded.		
	Implementation Year	
<u>Base Budget</u>		
Salaries	Seven courses – 2 associate faculty pay at approximately \$9,450 per instructor == \$18,900	
Other Expenses	Equipment Cost - \$47,151 Supplies/Software - \$20,000 Total - \$67,151	
	Online Training (to teach faculty in creating online coursework – honorariums, mileage, etc) – approximately \$3,000	
Total	\$89,051	

Indicate source and amount of funds:
 All funded by Barton – offset the expenses with tuition and fees

APPENDIX D

Minutes Showing Approval

- Drafting program -- Jane Howard and David Miller provided the group with a lot of good information regarding the new drafting program funded by the CBJT grant. This program will be 21 or 24 hours, approved by KBOR, and eventually may be expanded to a Barton campus class. Initially, it is only offered to inmate populations as part of the grant stipulations.

- Programs of Study database

- On the transfer programs list there are 2 AS degrees in Criminal Justice, one says just CJ and one says CJ transfer, are we still using both of these? If so, what is the difference? The one with just CJ is the same number as the AAS on the tech. list. I was thinking we had gone to only one on the transfer list but am not sure now. I am also updating the list of majors for the change of major form and am not sure how to explain this to students. -- Karen

The group decided to take the 4302 AS off of the list. Lori updated Banner.

- The 4509 major listed has never been in the Program Inventory so I can't speak to where/how it came about, or when we use it. Below are the options I see. This is NOT the new Military Technologies CERT. The Military Cert (29.0101) along with a few others were just approved last week but updating in Banner is not my world. I looked up 4509 in the CIP Code book and it says International Relations and Affairs.

ASSOC AAS (5205)BUSINESS ADMINISTRATIVE TECHNOLOGY 52.0401 64

ASSOC AAS (5225)BUSINESS TECHNOLOGY 52.1001 64

ASSOC AAS (5217)BUSINESS MGMT & LEADERSHIP 52.0201 64

- I have checked the Program of Study document against our "KBOR Approved" programs/certificates/SAPP's -- and here are the changes I suggest (some were already made yesterday in the meeting). We will be going over these changes at the next POS meeting. (At the bottom of this document -- is the link to the POS document we were looking at yesterday.) You might want to check with your faculty before the next POS meeting, to make sure these changes are correct.

Delete Law Enforcement (4308) -- not an approved AAS Add Criminal Justice (4302) -- this is the approved number List as Criminal Just/Law Enforce Change Automotive Technology to AAS and Cert 3 (delete the cert 2) Dietary Manager -- delete the cert 2 -- list only as cert 1 Pharmacy Tech list only as cert 1 -- delete the cert 2 Awaiting KBOR approval to change Fertilizer to Crop Protection List Mobile Intensive Care Technician as MICT/Paramedic List Business Admin Technology as Bus Admin Tech/Admin Assist (there are 29 characters for the titles) List (at the top of the document) Cert 1- 1-16 hours Cert 2 - 20-44 hours Cert 3 45-60 hours

Add under Programs Not Eligible for Financial Aid 5113 EMT: First Responder 7 (SAPP) 5114 EMT: Intermed (SAPP)

Everything would then match our KBOR Program Inventory -- except the following that are listed on the POS List: Bank Management Business Management (I think this is the FR program that is not Perkins/not approved) Military Studies Concentration (Junction--not Perkins/not approved) Under Programs Not Eligible: Activity Director Business Management Social Service Designee

- Links--

Transfer: Environmental Compliance Concent: right now it goes to journalism ... leave it unlinked unless you heard differently from Myrna. We have never had that listed to link anything to so I'm not sure if we have anything for it. Journalism:

<http://www.bartonccc.net/programsandcurricula/journalism.htm> Nursing ADN -

<http://nursing.bartonccc.edu> Nursing Transfer – <http://nursing.bartonccc.edu>

Career: Mobile Intensive Care Tech: <http://ems.bartonccc.edu> Medical Lab Technician:

<http://mlt.bartonccc.edu> Nursing – ADN – <http://nursing.bartonccc.edu> Nursing – PN –

<http://nursing.bartonccc.edu> Natural Gas Trans/Distrib Tech:

<http://www.bartonccc.edu/careers/programsclasses/trainingopp/mupct/index.html>

The group worked through all of the these. We will review again with LaVonne and Ray return for the September meeting.

- Kaplan Articulation Agreement -- Myrna

This was posted in the links section for the group to view.

- Administrative Assistant -- Myrna

This was taken off the Programs of Study list.

- K-State Curriculum Guides -- Myrna

These were posted in the links section for the group to view.

- Law Enforcement -- LaVonne -- tabled until the September meeting.

Drafting Advisory Board Meeting

Meeting Agenda

Team Name:	Drafting Advisory Board	Date:	June 22, 2009
Process/Project:	Advisory Meeting	Time:	10:00 am
Recorder:	Renetta Furrow	Place:	S137

Meeting Facilitator:			
Advisory Board Members:			
Name	Business	Title	Present
Renelle Mooney			
Nick Jensen	HESS Services		X
Clark Rusco	Barton County	County Engineer	X
Maynard Cunningham	MAICO		X
Lynn Engle	EBH Engineers		X
Darla Abbott	Evans, Bierly & Hutchinson		X
Kevin Noll	A-Z Land Survey		
Elaine Simmons	Barton	Dean of WTCE	X
Jane Howard	Barton	Executive Director, BTC	X
David Miller	Barton	CBJT Project Director	X

Agenda: Key Discussion Points	Action Items	Actions Taken
Topic 1: Introductions		
Topic 2: Purpose of Advisory Board – Elaine Simmons		Advisory boards play a required and necessary part in the development of new programs. They also help keep programs current and relevant for industry, so that colleges can help provide trained applicants and quality employees. Boards generally meet twice a year.
Topic 3: Explanation of Grant – David Miller		The CBJT Grant is a \$2 million grant that comes from the Department of Labor. It serves to provide vocational training to inmates and clients at Beloit Juvenile, Central Kansas Community Corrections, Ellsworth Correctional, Hutchinson Correctional, Larned Correctional and

		There are concerns about the limitations within the correctional facilities such as access to software, cd's, work time outside of class, and internet access.
Topic 4: Contacts		The board members made many suggestions of employers and contacts that use draftsmen.
Topic 5:		
Topic 6		
Other suggestions from board:		

APPENDIX E

Verification Form
For Perkins Approval

Submit one copy to the Career and Technical Education office, Kansas Board of Regents, 1000 SW Jackson Street, Suite 520, Topeka, KS 66612-1368.

FOR STATE USE ONLY:

Approved for Perkins Funding

Not Approved for Perkins Funding

Director, Career and Technical Education

Date