Revised July 2010

New Program Request Form

CA1

General Information

Institution Submitting Proposal	Barton Community College
Name and Title of Contact Person	Bill Nash, Fort Riley Dean of Technical & Military Outreach
Title of Proposed Program	Occupational Safety & Health
Proposed Suggested CIP Code	15.0701
Degree/Certificate Program Description	The Occupational Safety & Health degree, certificate and Industry Certificate (SAPP) program provides the opportunity for students to gain the skills needed to perform the required duties within the field of safety management. The program incorporates classes that fulfill the requirements of the Specialist in Safety & Health (SSH) and the Certificate in Occupational Safety and Health (CERTA) The SSH which is authorized to be offered through the Occupational Safety & Health Administration, OSHA Training Institute Education Center, OTIEC network of which Barton is the first and only one in the state of Kansas.
Number of Credits for the degree and/or certificate	AAS-64 Credit Hours SSH (SAPP) 6.5 Credit Hours OSH (Cert) 18 Credit Hours
Academic Unit	Technical
Proposed Date of Initiation	Spring 2016
Specialty Accrediting Agency	OSHA/Midwest OSHA Education Center
Location(s) of Program	Fort Riley Campus and online
Summary of Demand for the Program (including source of data)	NIOSH survey, Bureau of Labor Statistics, Current enrollment figures, student inquires
Listing of other similar programs in state/region (including enrollments and capacity)	Pittsburg State University, 4 year Environmental Safety and Health Program, not offered on line
Date Institution entered into Program Inventory	4-27-15 + 5-11-15

Signature of College Official _____ Date 8/10/15

Signature of KBOR Official _____ Date _____

Barton Community College
Occupational Safety & Health Program

Program Description

Catalog Description

The Occupational Safety & Health degree and certificates (SSH, CSHO) program provides the opportunity for students to gain the skills needed to perform the required duties within the field of safety management. The AAS degree provides the knowledge to perform duties as a Safety Technician, Safety Manager, Coordinator or Director. The program also incorporates classes that fulfill the requirements of the Specialist in Safety & Health (SSH) and Certified Safety & Health Official (CSHO) certificates.

Graduation and Admission Requirements

Graduation Requirements

Students must complete the required 64 credit hours for an Associate in Applied Science degree; of which 18 credit hours consists of general education requirements. At least 15 credit hours must have been taken at Barton. Students must achieve an overall 2.0 grade point average to be eligible for graduation.

Program Admission

Any person who is a resident of Kansas is entitled to admission to the freshman class of Barton Community College by meeting one of the following criteria recognized, in general, by the College for admission purposes.

- Graduate from an accredited high school.
- Pass the General Education Development (G.E.D.) examination.
- Complete United States Armed Forces Institute (U.S.A.F.I.) courses

Special circumstances will also be recognized for admission. The College reserves the right to deny a student admission or readmission if considered detrimental to the best interests of the College community or if the College is unable to provide the services, courses or program(s) needed to assist the student in meeting educational objectives.

Persons 18 years of age or older who do not meet the College's Admission Policy but are interested in pursuing college work may enroll by special permission. However, these individuals cannot graduate until meeting the Admission Policy requirements. Credits may not be transferred to another college until local requirements are fulfilled.

Individuals may be admitted as special students for such work as is approved by the Dean of Learning and Instruction or Dean of Student Development. Each Non High School Graduate enrolled by special permission must be actively pursuing the completion of the General Education Development (G.E.D.) examination. Special students are subject to College regulations, payment of all fees, regular attendance in classes, and maintenance of satisfactory standing.

Barton Community College welcomes high school students who wish to accelerate their educational pursuits. The general policy for Barton Community College as mandated by the Kansas State Department of Education is as follows:

- The student must be of junior or senior standing.

- The student must have authorization from the high school signed by a high school administrator before the enrollment may be processed.
- Any student who has not achieved at least junior status must present an IEP from the school stating that the student is recommended for college level course work.

Transfer students, are eligible for admission to Barton Community College if they are eligible to re-enter the institution last attended and meet the other requirements of the College.
Individuals who are on academic probation, suspension or dismissal from another college, may apply for admission; if accepted, be admitted according to the Academic Suspension Policy. Students, who falsify admission information, will be subject to dismissal.
Students, who transfer from another college without sufficient time to provide a complete transcript of credits, may be admitted and considered provisionally enrolled until high school transcripts and all college transcripts have been evaluated. Failure to present transcripts and other admissions requirements at a time designated may result in dismissal. Students may not be officially enrolled until all college transcripts have been received and evaluated.

Objectives

Occupational Safety & Health is a highly comprehensive and intricate profession. It involves identifying workplace hazards, assessing the risks associated with job tasks, preparing for safety audits, reporting correct and accurate information to the Department of Labor or more specifically the Occupational Safety and Health Administration (OSHA). The objective of this program is to provide students and current safety managers skills required to perform at various levels within the safety management field.

Relationship to Institutional Mission

The Mission of Barton Community College is to provide quality educational opportunities that are accessible, affordable, continuously improving and student focused. Barton is driven to provide an educational system that is learning-centered, innovative, meets workforce needs, and strengthens communities.

Providing workers and students the opportunity to complete a certificate and or degree in occupational safety and health follows in line with meeting workforce and strengthening our communities. Classes being offered both resident and online affords opportunities to workers and students.

Demand for Program

Changes in the business industry have created an increased need for Specialist in Safety & Health (SSH) Certificate. Part of the driving force to the changes is an increase in "work days" lost from injuries. While the demand for quality products is on the increase protecting the human resources has never been more important. Trained SSH personnel help meet the goal of safety in the work place by knowing and up-holding the standards. This certificate responds to the business industry's need for trained/ skilled employees who can enter the workforce quickly and still continue their training while employed. This certificate offers an entry level certificate that will prepare students for employment in one semester, The SSH is an entry level credential but also provides the newly appointed safety professional a baseline of skills and knowledge.

The CERT-A bridges the SSH and the degree completion with the ability of students completing the certificate to apply for OSHA's Certified Safety & Health Official (CSHO) certification once they have obtained 5 years' experience in the field and completed the Train-the-Trainer course.

We currently offer four classes' a month averaging 8 students per class. The classes are electives for our Hazardous materials AAS degree but we also offer classes as an OSHA Training Institute Education Center (only one in Kansas). The 13-14 credit hour year total was 90. So far this year we have over 300 credit hours completed with four enrollment cycles left.

Enrollment is expected to increase with the approval of the AAS OSH degree. We also have a partnership with Hutchinson Community College as a HOST site of Midwest OSHA Education Center, Barton Community College which allows them to offer OSHA classes as a HOST site (Outreach) for MOEC-Barton. See letter HCC Appendix A.

Performing a detailed job search using various online resources on any given day will produce 27-50 open positions in the state of Kansas. The positions (safety-coordinator, technician, manager, specialist, etc) represent new or vacant positions but many companies have current supervisors who they send to credentialing classes such as the SSH and CSHO certificates which are part of our program. Current workers also can increase salary or move into new positions once they complete certificates and or a degree. The largest percentage (52%) of our students in our Hazardous Materials Management and Emergency management certificate and degree programs are those currently employed but looking to be promoted or switch positions for better pay or working conditions with soldiers preparing to transition out make up another (40%).

Having established and having conducted our first occupational safety & health advisory board we have and are forming new partnerships with state, county, municipal and business and industry throughout the state.

Additionally we have had several inquiries from Kansas residents as well as work force centers requesting the college to get the SSH SAPP approved for WIA but current policy requires a program to be approved by the Kansas Board of Regents to be eligible. We applied for approval for the SSH and CSHO SAPP's but were denied as it was not part nor tied to a specific degree. The workforce centers currently can only fund those that are willing to travel to Metropolitan Community College in Kansas City, Missouri to complete the classes as the SSH and CSHO have been approved in Missouri which the WIA offices accept in Kansas. One Kansas resident even filed a complaint to the Governor's office.

A survey of several OSHA classes and several Kansas business and agencies was conducted with comments provided in Appendix G.

Employer Demand/Labor Market Data

Projecting the exact number of Occupational Safety and health positions in industry is extremely difficult as national studies tend to focus only on larger employers or only on full-time positions. Many of the smaller employers will hire supervisors with some formal training or certifications in the safety field. Others will pay to have a supervisor attend classes to obtain a degree and/or certifications. Most companies with more than 50 employees tend to have an employee with some type of safety training or certifications if not a full-time safety position.
The Bureau of Labor Statistics, BLS U.S. Department of Labor Outlook Handbook 2014-2015 Edition. Occupational Health and Safety Technicians (small to medium companies, certifications with medium companies looking for 2 year degree)

2012 median Pay	$47,440 -$22.81 per hour
Number of Jobs 2012	12,600
Job Outlook 2012-22	11%
Employment Change	1,400

Occupational Health and Safety Specialists (larger companies usually require Bachelor's degree)

2012 Median Pay	$66,790 - $32.11 per hour
Number of Jobs 2012	62,900
Job Outlook	7%
Employment Change 2012-22	4,200

The National Institute for Occupational Safety and Health, NIOSH contracted Westat to conduct a "National Assessment of the Occupational Safety and Health Workforce" dated October 2011.
The two key needs NIOSH expressed for this assessment were to:

- Assess the current supply and future demand for OS&H professionals
- Determine the desired professional competencies (i.e., knowledge, skills, and abilities required for the next 5 years.

The survey focused on larger employers with over 100 employees but did conduct an estimate for companies of less than 100 employees.

Employers with more 100 employees:

Total number of Occupational Safety and Health Nationwide	48,000
Number Occupational Safety professionals employed nationwide	28,722
Number Occupational Safety professionals employed Midwest	7,762
OSH professionals expected to be hired over next 5 years nationally	17,800
OSH professionals expected to be hired over next 5 years in Midwest	2,265

Westat model estimates of current workforce of Occupational Safety professionals in establishments with less than 100 employees:

Occupational Safety	4,008

State of Kansas

According to the state of Kansas "Long-Term Occupational Projections" for the career field 29-9011/12 There were 925 positions in 2010 with an additional 97 positions projected for 2020. The projections for replacement needs where 326 for the same time period. The annual salary range was $38,690 - $58,360 for the positions.

A survey of employers and program advisory board was conducted with respondents noting that the program is needed and their company would hire a graduate to fill a vacancy. Average starting salary was in the $38,000-$48,000 a year range. Appendix "G"

Two OSHA classes (15 students) where surveyed as to whether they would be interested in the program. OSHA- Machine Guarding and Fall Protection classes. Appendix G

Duplication of Existing Programs

Currently there are no two year offerings of an approved Occupational Safety and Health degree program in the state of Kansas. The SSH and CERT-A certificates can only be issued by an OSHA Education Center of which Barton is the only one in the state of Kansas (classes maybe offered by an approved HOST site but not the SSH certifications). http://bartonosha.com/courses.html

Kansas State University has a Transfer & Articulation Agreement with Barton Community College which establishes a 2+2 for any approved AAS degree. The Occupational Safety and Health degree would fall under this agreement.

Pittsburg State University currently offers has a four year Bachelor of Science in Technology with a major in Environmental and Safety Management. Once our program is approved we will establish a transferability and 2+2 agreement. Pittsburg State University is a HOST site for Midwest OSHA Education Center, Barton Community College.

Barton Community College is an active participate in the Salina Safety network. Members include business and industry as well as city state and county safety professionals. Barton also serves as a member of the State of Kansas Safety and Health conference planning committee. As the only OSHA education Center in the state Barton provides OSHA courses throughout the state but also throughout OSHA's region VII.

Barton Community College has formed several working partnerships with business and organizations to provide mentorship, class projects and scholarships to students in the Occupational Safety & Health program. A sampling of this support is provided in the letters of commitment provided by supporting organizations in Appendix A

Program Information

- Associate of Applied Science in Occupational Safety & Health
- Certificates:
  a. Specialist in Safety & Health –(SSH) General Industry
  b. Specialist in Safety & Health – (SSH)Construction Industry
  c. Occupational Safety & Health Certificate-CERT-A
- *See Appendix B for degree and SAPP template.*

The SSH certificates can only be offered thru an OSHA Education Center, such as MOEC-Barton. All the classes within the certificates must meet OSHA's course objectives, outcomes, class assessments as well as instructor qualifications. Students successfully completing any of the classes are also awarded an OSHA certificate of completion for that class.

Specialist in Safety & Health (SSH) Certificate
Developed at the request of industry, this short term certificate provides coursework necessary for entry level employment. The courses in this certificate are recommended by members of Midwest OSHA Education Centers. Changes in the business industry have created an increased need for Specialist in Safety & Health (SSH) Construction or General Industry. Trained SSH personnel help meet the goal of safety in the work place by knowing and up-holding the standards. This certificate responds to the business industry's need for trained/ skilled employees who can enter the workforce quickly and still continue their training while employed. This certificate offers an entry level certificate that will prepare students for employment or provide entry level skills to someone assigned additional duties as a safety coordinator.

Certificate Safety & Health – CERT-A

This credential is designed for personnel who perform safety and health work on a daily basis in general industry or construction environments or have safety responsibilities over others at those locations, including inspections and audits

It is not a requirement for the students to complete an SSH or the CERT-A prior to completing the degree however most students would complete the SSH and CERT-A as all classes needed are within the degree. If a student has 5 years' experience as a safety professional and completes the CERT-A plus one of the Train-the-Trainer classes (OSHA 1970 or 1971) they could qualify for OSHA's Certified Safety & Health Official (CSHO) certification. CSHO is designed for the professional that has years of experience and requires a formal certification.

General Education Course Descriptions
ENGL 1204 English Composition I - An approach to purposeful writing stressing self-expression through written communication by logical presentation of ideas with emphasis on content, organization, and mechanics. Prerequisites: ENGL 1194 Intermediate English or appropriate assessment score and READ 1109 Intermediate Reading with a grade of C or better or appropriate assessment score.

ENGL 1205 Technical Report Writing - This course involves the study of various composition techniques vital to a technical or professional writer. Structure, terminology, and types of reports are studied in depth.

COMM 1220 Organizational Communication - This course is designed to teach and analyze the functions of organizational communication necessary to obtain and become successful in an organizational setting. This includes maintaining effective employer/employee relationships, providing effective supervisory skills, using persuasion in the marketplace and business world, and understanding the non-verbal communication factors inherent within an organization.

ENGL 1236 Technical Communications - 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. 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.

COMM 1230 Public Speaking - This course includes a study of the theoretical principles underlying effective communicative behavior and the practical application of those principles in various communicative exercises and assignments. The course is designed to increase the awareness of the importance of speech communication in today's society and develop competency of speakers.

SOCI 1100 Introduction to Sociology - The course is a study of human social environments. Particular emphasis is given to the origin and nature of society and its institutions, general principles of sociology, and the influence of culture on the individual. Applications of these principles will be made to current social problems.

SOCI 1104 Contemporary Social Problems - This course provides a framework for identifying, exploring, and evaluating social problems today. Students are encouraged to distinguish knowledge from values in their own attitudes about what constitutes a "social problem" and in their assessment of current programs aimed at alleviation of social problems.

SOCI 1129 Cross Cultural Awareness - The purpose of this course is to assist students in developing an awareness of cultural backgrounds, attitudes, and experiences. The class is also intended to create an awareness of one's own individual respect for human dignity and individual rights both for oneself and others in our increasingly pluralistic society.

MATH 1806 Technical Mathematics - This course covers the mathematics needed by students enrolled in technical or trade programs. The emphasis will be on applications in solving problems encountered in vocational fields. The student will be exposed to a broad coverage of arithmetic, algebra, geometry, trigonometry, probability, and statistics. The metric system and measurement techniques will also be covered. MATH 1809 Basic Applied Mathematics with a grade of C or better OR having passed Module 4 in College Preparatory Mathematics OR an appropriate placement score

MATH 1823 Fundamentals of Mathematics - A general education course designed to make the student aware of mathematics as an integral part of his daily life. The emphasis will be upon applying mathematics to problems of our society. Topics covered include: real number properties, consumer math, computers, equations, inequalities, graphs, geometry, probability, and statistics. Prerequisite: 1821 Basic Algebra with a C or better or appropriate ASSET score.

MATH 1824 Intermediate Algebra - Topics include properties of real numbers, linear and quadratic equations, equations of lines, operations on polynomials and factoring, operations on rational expressions, functions, graphs of linear and quadratic functions, complex numbers, integer and rational exponents, radicals, systems of linear equations, and linear and quadratic inequalities. Prerequisite: MATH 1821 Basic Algebra with a grade of C or better or appropriate placement score

MATH 1828 College Algebra - A study of polynomial, rational, exponential, and logarithmic functions and their graphs; complex numbers, systems of equations and inequalities, and an introduction to matrices and determinants. Additional topics may include conic sections, partial fractions, sequence and series, discrete mathematics, probability, and the binomial theorem. Prerequisite: MATH 1824 Intermediate Algebra with a grade of C or better OR having passed Module 12 in College Preparatory Mathematics OR appropriate placement score

PHSC 1404 Physical Geography - A study of the geographic factors of our physical environment, including climate, terrain, soils, landforms, the seas, economic sources, cartographic elements and an introduction to regional studies.

LIFE 1413 Environmental Science - A study of current environmental conditions, issues, and problems. Students will study the different types of ecosystems, the use and availability of natural resources, population dynamics, and environmental risks. Students will also explore possible solutions to such environmental issues as global warming, acid rain, extinction of species, and energy waste by examining current scientific and political thought.

LIFE 1426 Renewable Energy Sources - This Course provides a comprehensive overview of renewable energies, including solar energy, wind power, hydropower, biomass, and alternative fuels. Students will be taught the principles of basic solar design, solar hot water, pool and space heating and solar cooling. Students will learn how to assess the viability of wind power, hydropower or biomass system for a given location. Students will also learn about the impact of government regulations on the use of renewable and fossil fuel energies. Students will analyze these renewable energy systems and will calculate savings factors; backup energy needs, financing options, and economic analyses.

LIFE 1425 Residential Energy Efficiency - This course is designed to provide the student with information on the principles, methods and materials that have proven to be effective in improving the energy efficiency of residential buildings. All necessary components of effective use of energy in residential buildings will be covered.

BSTC 1036 Computer Concepts and Applications - This course is an introduction to computer concepts in which focuses on concepts including hardware, operating systems, ethics and security; and applies hands-on interaction with software applications including word processing, spreadsheets, presentations, and database systems. On completion of this course, students will understand common computer terminology, utilize featured application software, and recognize relevant ethics and security issues associated with technology.

BSTC 1001 Introduction to Computers - This is a computer literacy course designed to introduce students to what a computer is and how computers can be used. Topics covered include a brief historical survey of computers, components of computer hardware, applications and systems software, survey of programming languages, computer systems design and analysis, problem-solving capabilities of a computer and the impact of computer technology on society. Students will also gain experience using microcomputers and packaged software such as word processing, spreadsheets, database management, graphics, and telecommunications.

BSTC 1023 Database Management Systems - Provides theory, information and training in the concepts of database management systems using microcomputer database software to apply and validate these concepts. Database design methodology is discussed. A microcomputer DBMS is used to create a database and generate solutions to implement a business application. Students create tables, input forms, subforms, switchboard forms, filters, select and action queries, reports and subreports, and macros. Text and spreadsheet data is imported into the database, and database objects are shared with and exported to other programs. Concepts on how to distribute data using a private internal intranet or the public Internet are explored. Database security issues are examined.

BSTC 1685 Spreadsheet Applications - A course emphasizing the use of spreadsheet applications software to solve business problems such as budgeting, accounting, forecasting, and scheduling. Included

will be applications using formulas, editing, copying, sorting, recalculating, designing and using templates, generating graphs, and macros features. Planning techniques and potential uses of spreadsheets in business and industry will be discussed.

OFTC 1696 Word Processing Applications - A course emphasizing the preparation of documents utilizing automated electronic text editing word processing equipment and all the language arts skills necessary for accurate copy. Included will be creation, revision, printing, formatting, rulers, pagination, repetitive documents, hyphenation, spelling error detection, list/merge processing, and related functions.

BSTC 1698 Information Processing Systems Management - A course for those who are word processing supervisors or aspire to supervisory or management positions. The emphasis is on office technology, systems organization (including integration of WP/DP, electronic mail, communications, and records management), personnel management, controls and measurement of word processing operations and production controls.

Required Course Descriptions

HZMT 1903 Environmental Management - Environmental Management provides an overview of the impact of industrial operations on the environment, government regulations controlling industrial activities, and cost-effective business strategies that meet environmental guidelines. ISO standards are introduced as guidelines for businesses engaged in production activities.

HZMT 1934 ISO 14000 Environmental Management- This course will concentrate on general environmental management systems and tools, which comprise the scope of ISO 14000, the voluntary international standard for environmental management systems. Students will explore specific requirements for environmental management systems, to enable an organization to formulate a policies and objectives, which minimize the impact of its operation on the environment. Examples of environmental management systems that will be reviewed include policies, organizational systems, management, planning, operational procedures, effect and regulatory identification procedures, objectives, targets, vendor controls, auditing, record keeping and many others. Students will be given practical exercises requiring application and critical thinking to add structure and perspective to their learning process.

HZMT 1912 Industrial Hygiene and Toxicology - A review of the research done in determining the systematic health effects of exposures to chemicals. Determination of risk factors, routes of entry, control measures, and acute and chronic effects are discussed.

HZMT 1940 Introduction Ergonomics - This course provides the student the fundamental knowledge about human structure, behavior, and common work practices. Knowledge gained in class will enable the student to evaluate work systems and recommend changes that will reduce work related musculoskeletal disorders (MSD) and other workplace ergonomics related injuries.

HZMT 1950 Characteristics of Hazardous Materials - This course focuses on the basic concepts needed by first responders, emergency operations, personnel, industry, and law enforcement to evaluate the potential hazards and behaviors of materials considered hazardous. It examines the reasons for the chemical behavior of hazardous materials and is designed to improve decision-making in safety operations, handling, entrance protection, mitigation, and decontamination procedures. Units of the course include the Periodic Table, chemical and physical aspects of chemical compounds and how these

properties affect emergency incidents, salts, non-salts, the hydrocarbon family, hydrocarbon derivatives, and physical process of combustion.

OSHA 1933 Workplace Accident Investigation - This course provides an introduction to basic accident investigation procedures and describes accident analysis techniques. The focus of the course is to assist students in gaining the basic skills necessary to conduct an effective accident investigation in a workplace. Topics include the primary reasons for conducting an accident investigation, employer responsibilities related to workplace accident investigations, and the six step accident investigation procedure.

OSHA 1927 Fundamentals of Occupational Safety and Health Construction Industry - This course will instruct students on OSHA and regulations pertaining to construction standards set forth in the Code of Federal Regulations 29 part 1926.

OSHA 1928 Fundamentals of Occupational Safety and Health General Industry - This course will instruct students on the importance of OSHA and regulations pertaining to General Industry standards set forth in the Code of Federal Regulations 29, Parts 1910. 1903 and 1904.

OSHA 1929 Introduction to Fire Prevention - This course will provide fundamental information regarding the history and philosophy of fire prevention to students through the study of fire codes, identification and correction of fire hazards, and addressing the relationships of fire prevention with built-in fire protection systems, fire investigation and fire and life-safety education.

OSHA 1930 Practicum in Occupational Safety & Health - This practicum focuses Occupational Safety and Health practical experience in work practice controls and hazard recognition. Students will develop for a selected business standard procedures required to identify and correct hazards in the workplace

OSHA 1932 Work Practices Controls/Safety Audits - This course discusses the logical flow of hazard recognition to Job Hazard Analysis (JHA) and development of successful safety cultures and programs that support the management process. Work practice controls and hazard recognition will provide the basic foundation necessary to identify and correct hazards in the workplace.

OSHA 1931 Safety Training Methods for Adult Learners - A review of the training methods that focus on identifying, assessing and, through planned learning, helping develop the skills, knowledge and ability (SKA) competencies that enable individuals to perform their jobs in the field of safety using andragogy processes

Major Electives

HZMT 1917 Department of Transportation (DOT) Regulation s- This course provides a detailed study of the U.S. Department of Transportation (DOT) regulations. Topics include identifying regulated materials, prepare shipping papers, inspection of packaging and label determination. Emphasis will be placed on interpretation of regulations used in the transportation and storage of hazardous materials.

HZMT 1907 Hazardous Materials Response Operations (OPS level) - This introductory class emphasizes recognition of hazardous materials and the appropriate follow-up actions such as identify the product, isolate the area, and notify other responders. The use of the 49 CFR, Department of Transportation's North American Emergency Response Guide (NAERG), National Institute for Occupational Safety and Health (NIOSH) pocket guide, and Material Safety Data Sheet (MSDS) is emphasized. National Fire Protection Agency's (NFPA) code 704 will also be discussed in the class.

HZMT 1919 HAZWOPER - This course provides students with an overview of the requirements of 29 CFR 1910.120 for occupational health and safety workers who respond to hazardous waste and chemical spills. Topics include toxicology, chemical awareness. Monitoring, personal protective equipment, safety, confined space entry, incident command, site control, medical surveillance, decontamination, safe work practices and emergency procedures.

HZMT 1907 Resource Conservation and Recovery Act (RCRA) - This course provides an introduction to the Resource Conservation and Recovery Act (RCRA) with an emphasis on federal rulemaking, regulatory framework, and hazardous waste management. Topics include the Federal Register, Code of Federal Regulations, hazardous waste characterization, generator classifications, transporter responsibilities, treatment and disposal facilities, universal waste, standard and innovative remediation technologies, and contingency planning. Students will also explore and discuss related laws impacting hazardous waste management such as the Comprehensive Environmental Response and Liability Act (CERCLA) and the Emergency Planning and Community Right to know Act (EPCRA).

HZMT 1909 Clean Air & Water Quality Regulations - This course provides a study of the laws and regulations associated with the protection of air and water. Topics and activities include the Clean Air Act Amendments (CAAA), Clean Water Act (CWA), air pollution control technologies, National Pollutant Discharge Elimination System (NPDES), and interpreting standards promulgated in the Code of Federal Regulations.

OSHA 1006 Permit Required Confined Space Entry - This course is designed to enable students to recognize, evaluate, prevent, and abate safety and health hazards associated with confined space entry. Technical topics include the recognition of confined space hazards, basic information about instrumentation used to evaluate atmospheric hazards, and ventilation techniques. This course features hands-on exercises on permit entry classification and program evaluation.

OSHA 1007 Guide to Industrial Hygiene - This course is designed for those interested in increasing knowledge of industrial hygiene practices and related OSHA regulations and procedures. Topics include permissible exposure limits, OSHA health standards, respiratory protection, engineering controls, hazard communication, and sampling. Activities are focused on health hazard recognition and the use of OSHA standards and Safety and Health programs.

OSHA 1008 Principles of Ergonomics - This course will familiarize participants with the application of ergonomic principles for the reduction of musculoskeletal stress and strain in the workplace with the goal of controlling or preventing workplace musculoskeletal and nerve disorders. Participants will conduct a task analysis of jobs to identify risk factors and present plans for worker protection.

OSHA 1009 Fall Arrest Systems - This course provides an overview of state-of-the-art technology for fall protection and current OSHA requirements. Topics covered include principles of fall protection, components of fall arrest systems, limitations of fall arrest equipment, and OSHA policies regarding fall protection. Course features exercises and activities using fall protection equipment.

OSHA 1010 Electrical Standards - This course is designed to provide the student with a survey of OSHA electrical standards and the hazards associated with electrical installations and equipment. Topics include single and three-phase systems, cord and plug connected and fixed equipment, grounding, ground fault circuit interrupters, and safety-related work practices. Emphasis is placed on electrical hazard recognition and OSHA policies and procedures. Students will also receive instruction on the safe and correct use of electrical testing equipment.

OSHA 1011 Excavation, Trenching and Soil Mechanics - This course focuses on OSHA standards and the safety aspects of excavation and trenching. Students are introduced to practical soil mechanics and its relationship to the stability of shored and un-shored slopes and walls of excavations. Various types of shoring (wood timbers and hydraulic) are covered. Testing methods are demonstrated and activities conducted to allow students to use instruments such as penetrometers, torvane shears, and engineering rods.

OSHA 1012 Hazardous Materials - This course provides a detailed overview of the OSHA general industry standards related to hazardous materials. Topics covered include flammable and combustible liquids, compressed gasses, cryogenic liquids, and liquid petroleum. Hazardous processes such as spraying and dipping operations are covered as well.

OSHA 1013 Machinery & Machine Guarding Standards - This course provides instruction provided on the hazards associated with various kinds of machinery and the control of hazardous energy sources. The course presents an approach to machinery inspection that enables participants to recognize hazards and to provide options to achieve abatement. These hazards include mechanical motions and actions created by points of operation and other machinery processes.

OSHA 1914 OSHA General Industry Regulation s- This course will train students on OSHA regulations pertaining to General Industry standards that are set forth in the Code of Federal Regulations 29, parts 1910, 1903 and 1904.

OSHA 1926 OSHA Construction Industry Regulations - This course will train students on OSHA regulations pertaining to construction standards that are set forth in the Code of Federal Regulations 29, part 1926

OSHA 1970 Trainer course in Standards for Construction - This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour construction courses.

OSHA 1971 Trainer course in Standards for General Industry - This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour general industry courses.

OSHA 1972 Respiratory Protection - This course will cover a variety of respirators, fit testing, and respiratory protection written programs for employers. This course meets the requirements of OSHA 2225 respiratory protection.

Competency Profile

Upon completion of this module, the student will be able to do the following:

1. Identify and evaluate workplace hazards, including unsafe acts and conditions.
2. Implement control of workplace hazards through engineering practices, personal protective equipment, and policy changes.
3. Develop and implement written plans (eg. SOPs, sampling plans, safety and health plans, corrective action plans, lockout/tag out procedures, confined-space entry procedures).
4. Maintain records and write reports for use internally or by regulatory authorities.
5. Follow established quality control procedures.

6. Select facility equipment and materials based on regulatory standards and health and safety concerns.
7. Select proper personal protective equipment for workplace tasks.
8. Maintain and inspect personal protective equipment.
9. Conduct respirator fit testing.
10. Conduct workplace safety meetings.
11. Conduct workplace safety and health audits.
12. Manage workplace hazardous materials and wastes, including shipping, receiving, labeling, storage, and disposal.
13. Develop Hazard Communication program.
14. Maintain and interpret Safety Data Sheets.
15. Interact with regulatory authorities and public health and safety officials.
16. Investigate workplace incidents and accidents, and workers compensation claims.
17. Integrate globally harmonized systems of classification and labeling of chemicals into hazard communication procedures.
18. Maintain compliance with applicable state and federal health/safety regulations.
19. Identify/Conduct/Coordinate initial and refresher safety training including new employee orientation.
20. Identify and manage contractor safety program including confined space entry.
21. Prepare and interpret safety and health reports
22. Identify workplace ergonomic hazards
23. Prepare and brief workplace accident reports
24. Identify workplace environmental concerns
25. Prepare an environmental management plan
26. Develop a HASP for a chemical spill
27. Identify workplace fall hazards
28. Select appropriate fall protection equipment
29. Inspect safety equipment and identify unserviceable equipment
30. Read and interpret safety and health regulations

Sample of Cycle Schedule

Fall Semester Cycle 1				
	ENGL 1204	English Comp I	3 credits	Gen Ed
	HZMT 1934	ISO 14000	3 credits	Major
	HZMT 1912	Industrial Hygiene & Toxicology	3 credits	Major
Fall Semester Cycle 2				
	COMM 1220	Organizational Communications	3 credits	Gen Ed
	HZMT 1940	Intro to Ergonomics	3 credits	Major
	HZMT 1950	Characteristics of Hazardous Materials	3 credits	Major
SpringSemester Cycle 1				
	SOCI 1100	Intro to Sociology	3 credits	Gen Ed
	OSHA 1933	Workplace accident Investigation	3 credits	Major
	OSHA 1927	Fundamentals of OSH Construction Industry	3 credits	Major
SpringSemester Cycle 2				
	Math 1806	Tech Math	3 credits	Gen Ed
	OSHA 1928	Fundamentals of OSH General Industry	3 credits	Major
	OSHA 1929	Intro to Fire Prevention	3 credits	Major

Year 2
Cycle Schedule

Fall Semester Cycle 1				
	LIFE 1426	Renewable Energy Sources	3 credits	Gen Ed
	OSHA 1932	Work Practices Controls/Safety Audits	3 credits	Major
	OSHA 1931	Safety Training Methods for adult learners	3 credits	Major
Fall Semester Cycle 2	OSHA 1972	Respiratory protection	2 credits	Elective
	OSHA 1914	General Industry Regulations	2 Credits	Elective
	OSHA 1012	Hazardous Materials	2 credits	Elective
	OSHA 1930	Practicum in OSH	3 Credits	Major
Spring Semester Cycle 1				
	BSTC 1036	Computer Concepts	3 credits	Gen Ed
	OSHA 1010	Electrical Standards	2 credits	Elective
	OSHA 1011	Excavation, Trenching	1.5 credits	Elective
Spring Semester Cycle 2				
	OSHA 1006	Permit Required Spaces	1.5 credits	Elective
	OSHA 1013	Machinery & Machine Guarding Standards	2 credits	Elective

Total Credits – 64
General Education – 18 credits
Major – 33 credits
Electives – 13 credits

The program will be offered through the Fort Riley Campus in 5-8week cycles as well as online with 5-9 week cycles. Students will have the opportunity to take both resident and online classes. All classes are offered at least 2 times a year online and at least once in the resident program.

Time line for the start of the program is spring 2016.

Opportunities for students to interact, complete projects or internship with business and industry was discussed during our advisory board meeting (included in minutes) which several businesses as well as government agencies discussed the importance of creating opportunities and the willingness to do provide those opportunities. The consensus of the board was for each organization to identify what opportunities they could provide for students. We will have further discussions at the October 2015 meeting.

The syllabi are provided in Appendix C

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

Associate faculty instructors will come from industry and will meet OSHA and the college's requirements to teach in the program. We are in the process of identifying additional qualified associate faculty to teach in the program.

OSHA defines the minimum criteria for instructor qualifications for teaching any of the OSHA courses within the SSH or CHSO certifications. Attached in Appendix F

We currently have 1 full-time Instructor Coordinator with 8 associate faculty. Additional faculty including a full time will be hired as the program enrollment grows and class offerings expand.

Current Faculty

Bill Nash, MS, Higher Ed Administration, Fort Hays State University; Graduate Certificate in Occupational Safety & Health, CSU, and nine Graduate credits in Renewable/Sustainable Energy, CSM/UW, BS in Management UIU, and an AS from Barton Community College (Fort Riley); retired military; Certified Environmental Safety & Health Trainer (CET), an Approved OSHA Outreach Trainer (General Industry & Construction), and a Manager of Environmental Safety & Health, (MESH) North Carolina State University. He is a Certified Instructional Technologist (CIT), an authorized HAZWOPER, DOT and Emergency Response Trainer with the Hazardous Materials Training and Research Institute, HMTRI; an approved instructor for FEMA's ICS and NIMS, CERT and DOJ's Weapons of Mass Destruction Awareness and Operations classes, and serves the state of Kansas training cadre for NIMS, ICS and Emergency Management. Bill is a Curriculum evaluator for American Council on Education, ACE for both Military and Credit Programs. He is the college's OSHA Ed Center Director.

Dennis King, BS, Public Administration, Upper Iowa University with a graduate certificate from Columbia Southern University in Occupational Safety and Health. He holds an AAS in Building Maintenance Technology from Central Texas Community College. Dennis is an instructor for Barton Community College in the Military Schools program at Fort Riley and also instructs in the OSHA and Environmental Management/Emergency Response Program. Dennis spent twenty two years in the United States Army as a Combat Engineer. He retired in 1996, and joined Barton Community College in 1998. Dennis received training from the Hazardous Materials Training and Research Institute at Kirkwood College in Cedar Rapids in 2000.

Brandon Green, B.S. in Kinesiology, KSU, and a Graduate Certificate in Public Health, KSU. Mr. Green is an instructor for Barton Community College in the Military Programs Dept. where he provides training

on a variety of subjects including Combat Lifesaver (CLS), Field Sanitation, Digital Training Management Systems (DTMS), and the Unit Movement Officer's Course (UMO). He is also teaching hazardous materials and OSHA classes. Brandon served as a U.S. Army flight medic with multiple units during his nine and a half years in the military. Mr. Green completed four tours in Southwest Asia (Iraq) and a two year stint in Central America. Prior to joining the military, Mr. Green worked for various industries including new home construction, shipbuilding, cell/radio tower repair/maintenance and offshore fields. Brandon is scheduled to attend the Greatest Train-the-Trainer summer 2015.

Lindsay Holmes

Currently employed by Barton Community College in Junction City, KS as a Program Coordinator/Academic Advisor for the Hazardous Materials Management program and the Emergency Management program. She is also an Approved OSHA outreach Trainer for General Industry and teaches several OSHA classes including Hazardous Materials and Respiratory Protection. Certifications include:

- Firefighter I/II
- State Certified EMT-B
- Fire Officer I
- Fire Instructor I
- Hazardous Materials Technician Level
- HAZWOPER 40-Hour
- Comprehensive Monitoring (H-50)
- Authorized Outreach Trainer – General Industry
- Specialist in Safety and Health (SSH) – General Industry

Walter Brown, is an instructor with Barton Community College for the Military Schools program and also the Hazardous Materials Emergency Services Training In the spring of 1995 Walter joined the Barton family as a Military Program instructor, training Army service members the proper techniques for handling, storing, and transporting petroleum fuels and various military grade munitions. Walter has an AAS in Environmental Management, with various certificates for Train-the-Trainer programs from Hazardous Materials Training and Research Institute (HMTRI) and the Transportation Safety Institute (TSI) and is currently participating in the Certified Dangerous Goods Professional (CDGP) program for the Institute of Hazardous Materials Management (IHMM) for air carrier's dangerous goods cargo specialists.

Dawn J. Douglas, Masters of Arts Degree in Education - Concentration - Training and Development Graduate Certificate - Adult Learning , Bachelor of Science Business Administration - Concentration Safety Management Systems , Certified Safety and Health Official (CSHO) - General Industry and Construction , OSHA, Public Sector Safety and Health - General Industry - OSHA , Occupational Safety and Safety Technologist (OSHT) - BCSP , Certified Safety and Environmental, Safety and Health Trainer (CET) - BCSP , Specialist in Safety and Health (SSH) - General Industry - OSHA , OSHA Outreach Trainer General Industry and Construction - OSHA , Professional Certificate CP-12 (Occupational Safety and Health, Explosives)- US Army
_Distinguished Honor Graduate Joint Services Safety and Occupational Health Program - US Army _Associate Safety Management Practitioner Certification - ISHM _Associate Safety and Health Manager Certification -ISHM

Certified Safety and Occupational Health Specialist with seven years in the Army Safety Program. Performs full spectrum of safety operations, specializing in training and development for safety program management.

Ronald Clasberry, Master of Science. M.S. - Occupational Safety & Health - Columbia Southern University, Bachelor of Applied Science. B.A.S. - Occupational Safety & Health - Columbia Southern University, Associate in Applied Science Degree. A.A.S. , Emergency Management / Homeland Security - Barton Community College, Associate in Applied Science Degree A.A.S.- Hazardous Materials Management,- Barton Community College, I currently serve as the Deputy Garrison Safety Manager, an advisor to the Fort Riley Garrison Safety Manager, assisting with planning, organizing, developing, coordinating, implementing, monitoring the effectiveness of our safety promotional/educational seasonal campaigns, and evaluating Fort Riley's comprehensive Occupational Safety and Health program for all units and activities assigned, attached, or supported by Fort Riley. I advise the Safety Manager on Occupational Safety and Health program management, accident prevention and mitigation, safety education and promotion, accident investigation, reporting and analysis, and on all matters relating to compliance with Public Law 91-596, DoDI 6055 Series, Executive Order 12196, Army Safety Regulations and Policies, and Occupational Safety and Health Act (OSH Act), and any available guides that include solutions on technical and administrative problems. Also, in the absence of the Safety Manger, I communicate with FORSCOM senior leadership, eighteen directorates assigned or attached to IMCOM, local partner organizations and their parent Headquarters, and local civic and community leaders.

James (Jim) Hill, MS Adult Education, Kansas State University; Graduate Certificate in Human Resource Administration. He holds a BS in History/Education. Jim is retired Military. He is a certified US Army Training Instructor as well as a certified corporate trainer from the American Society of Training & Development, an Approved OSHA Outreach Trainer (General Industry), and a recipient of the OSHA Specialist in Safety & Health certificate. Jim is currently working on his Certified Safety & Health Official (CSHO), General Industry. Jim has over 20 years' experience as a Safety Officer, most recently at Fort Riley, Environmental Division, Directorate of Public Works (DPW). Among this duties at DPW include teaching Safety, HAZMAT, Environmental, Spill Response and Reporting, RCRA waste storage and disposal classes. Jim serves as an Associate Faculty with Barton Community College teaching in the areas of Safety and HAZMAT.

Cost and Funding of the Proposed Program

Adequate Resources

Several of the classes are currently offered through the hazardous materials and OSHA Education Center programs which use some of the same equipment. We currently have all equipment needed to support the program.

Barton Community College has applied and was successful as a sub grantee with the National Partnership for Environmental Technology Education, PETE for a 5 year NIEHS grant which would allow for equipment purchases and fund the delivery of several of the OSHA classes not only in Kansas but 4 different states at military posts targeting transitioning soldiers. The equipment would also be available to supplement resident as well as classes conducted for HOST sites around the state.

An announcement of the Grant is enclosed (Appendix H)

As an OSHA Education Center we receive funds from the issue of OSHA 10 & 30 hour cards issued through Midwest OSHA Education Center of which we are a member. This money is used to support administrative, marketing and professional development for staff and faculty.

Barton has been an active member of National PETE and the Community College Consortium of Safety and Health Trainers. The consortium is grant funded and provides subsidized training and some funding to active members to purchase equipment and provide professional development for faculty (annual funds rage from $7,000 -$10,000). Barton staff have held several positions and currently hold the position of National Chair for PETE and well as participate as a board member.
http://nationalpete.org/niehs-ccchstpete/
http://nationalpete.org/about-pete/board-of-directors/

Form CA-1a is attached under Appendix D

Program Review and Assessment

Program Assessment

The program will be assessed by using several different methods. Instructors will utilize pre and posttests to assess at the class and at the program level. All credit classes are required to submit classroom assessment techniques, "CAT" at the end of each class which are included in all audits and assessments at the class and program level. Student critiques and evaluations for each class and by program are reviewed quarterly as well as annually.

Six months after the first graduating class an employer as well as an employee (student) survey will be sent out. This survey will focus program competencies and workplace performance as well as recommended changes to the program. The surveys will be consolidated and reviewed by faculty, staff and advisory board to ascertain trends in areas needing improvement or those excelling. Changes will be incorporated with scheduled assessments specifically comparing desired outcomes with actual outcomes.

Program Review

Programs at Barton Community College participate in a formal program review every three to five years with departmental reviews conducted annually. The Occupational Safety & Health program will be implemented into that cycle.

Evaluation

Students will evaluate the courses and instructors on a class/semester basis. The program coordinator as well as the executive director will conduct classroom visitations and annual performance reviews. Advisory board will also be involved in annual program reviews.

APPENDIX A

Industry Support Letters

UNITED STATES
DEPARTMENT OF LABOR

OSHA Trade News Release

U.S. Department of Labor
OSHA, Office of Communications

September 28, 2012
Contact: Office of Communications
Phone: 202-693-1999

US Department of Labor's OSHA announces selection of OSHA Training Institute Education Centers

New centers extend safety and health training opportunities throughout US

WASHINGTON – The U.S. Department of Labor's Occupational Safety and Health Administration today announced four new OSHA Training Institute (OTI) Education Centers and the renewal of 24 existing OTI Education Centers. Current OTI Education Centers offer training courses on OSHA standards and occupational safety and health issues. The new OTI Education Centers, which are non-profit organizations, will provide additional outlets for safety and health training to workers and employers throughout the country.

"This year, we have seen record numbers of requests for occupational safety and health training from the private sector and federal agency personnel," said Dr. David Michaels, assistant secretary of labor for occupational safety and health. "The renewal of OTI's Education Centers and the addition of four new centers will help OSHA to meet this demand and deliver life-saving training to our country's employers and workers."

The OTI Education Centers program was created in 1992 to complement the OSHA Training Institute in Arlington Heights, Ill., which provides training and education to OSHA compliance officers. The OTI Education Centers provide training nationwide to private sector and federal personnel from agencies outside OSHA. The OTI Education Centers trained more than 40,000 people during the 2012 fiscal year, representing an all-time record for the program.

The OTI Education Centers also assist the agency in administering the OSHA Outreach Training Program and fulfilling the program's monitoring requirements. OTI Education Centers are the principal distribution channel for Outreach Training Program trainer courses, including prerequisite and update courses. Trainer courses are offered by topic areas including construction, general industry, disaster site and maritime. Through these train-the-trainer programs, qualified individuals who complete a one-week OSHA trainer course are authorized to teach 10-hour or 30-hour courses focusing on safety and health hazards. Through the Outreach Training Program, more than two million people received training from fiscal 2010 through fiscal 2012. This is a voluntary program and does not meet training requirements for any OSHA standards.

The new OTI Education Centers were selected through a national competition announced on April 13, 2012, and published in the Federal register on April 15. Applicant organizations were evaluated based on organizational experience, staff experience, location and training facilities, marketing and recruitment, administrative capabilities, evaluation, and the ability to provide training throughout a given region. OSHA provides no funding to the OTI Education Centers. The OTI Education Centers support their

OSHA training through their established tuition and fee structures and provide their own instructors and facilities. For more information on the OTI Education Centers Program, the Outreach Training Program, and the Directorate of Training and Education, please visit www.osha.gov/dte/index.html.
The new and renewed OTI Education Centers are listed below. An asterisk indicates new OTI Education Centers for 2012:

Region I
Keene State College - Keene, NH

Region II
Atlantic OSHA Training Center, a consortium that includes University of Medicine and Dentistry of New Jersey - Piscataway, NJ (lead organization); Universidad Metropolitana Instituto de Educacion Ambiental - Bayamon, PR; and University of Buffalo - Buffalo, NY
Rochester Institute of Technology - Rochester, NY

Region III
Mid-Atlantic OTI Education Center, a consortium that includes Chesapeake Region Safety Council - Baltimore, MD (lead organization); and Mid Atlantic Construction Safety Council - Philadelphia, PA

National Resource Center, a consortium that includes West Virginia University - Morgantown, WV (lead organization); CPWR - Center for Construction Research and Training - Silver Spring, MD; and National Labor College - Silver Spring, MD

Region IV
Eastern Kentucky University - Richmond, KY
*Florida State College at Jacksonville - Jacksonville, FL
Georgia Tech Research Institute - Atlanta, GA
Southeastern OTI Education Center, a consortium that includes North Carolina State University - Raleigh, NC (lead organization); and University of Tennessee - Nashville, TN
University of Alabama - Tuscaloosa, AL
University of South Florida - Wesley Chapel, FL
*Volunteer State Community College - Gallatin, TN

Region V
Great Lakes Regional OTI Education Center, a consortium that includes University of Cincinnati - Cincinnati, OH (lead organization); Eastern Michigan University - Ypsilanti, MI; and United Auto Workers Health and Safety Department - Detroit, MI
Mid-America OTI Education Center - Springboro, OH
National Safety Education Center, a consortium that includes Northern Illinois University - DeKalb, IL (lead organization); Construction Safety Council - Hillside, IL; and National Safety Council - Itasca, IL

Region VI
*A consortium that includes Alliance Safety Council - Baton Rouge, LA (lead organization); and Louisiana State University - Baton Rouge, LA
Texas A&M University Engineering Extension (TEEX) - College Station, TX
University of Texas at Arlington - Arlington, TX

Region VII
Metropolitan Community College - Kansas City, MO

Midwest OSHA Education Center, a consortium that includes National Safety Council - Omaha, NE (lead organization); Saint Louis University - St. Louis, MO; and Barton Community College - Great Bend, KS

Region VIII
Mountain West OSHA Education Center, a consortium that includes University of Utah - Salt Lake City, UT (lead organization); and Uintah Basin Applied Technology College - Vernal, UT

Rocky Mountain Education Center, a consortium that includes Red Rocks Community College - Lakewood, CO (lead organization); and North Dakota Safety Council - Bismarck, ND

Region IX
*Arizona State University - Tempe, AZ
California State University, Dominguez Hills - Carson, CA
Chabot-Las Positas Community College District - Pleasanton, CA
College of Southern Nevada - Las Vegas, NV
University of California, San Diego - La Jolla, CA

Region X
University of Washington - Seattle, WA
For information on the geographic areas served by OSHA's Regional Offices, visit http://www.osha.gov/html/RAmap.html.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit http://www.osha.gov.

Corporate Office:
Great Plains Mfg., Inc.
1525 E. North St.
P.O. Box 5060
Salina, Kansas, USA
67402-5060

Phone:
785-823-3276

FAX:
785-822-5619

Internet:
www.greatplainsmfg.com
www.landpride.com
www.gptrucking.com
www.gpacfinance.com
www.simba.co.uk

Great Plains Division
Administrative Offices:
Salina, Kansas

Product Development:
Assaria, Kansas

Plants:
Salina, Kansas
Ellsworth, Kansas
Tipton, Kansas

Land Pride Division
Administrative Offices:
Salina, Kansas

Product Development:
Salina, Kansas

Plants:
Abilene, Kansas
Enterprise, Kansas
Kipp, Kansas
Lucas, Kansas

Great Plains International
Administrative Offices:
Salina, Kansas

Plant:
SIMBA Sleaford, England

Great Plains Trucking
Salina, Kansas

G.P.A.C.
Great Plains Acceptance Corporation
Salina, Kansas

March 16, 2015

Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace is an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor Great Plains Manufacturing, Inc. pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.
- Opportunities for faculty and company safety personnel to meet.

GRAINGER
FOR THE ONES WHO GET IT DONE

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. Barton Community College is now an OSHA Education Center and a member of the Midwest OSHA Education Centers Consortium, MOEC. This new degree is designed to provide professional growth for the rapidly changing workforce throughout the State through a high quality program incorporating thought-provoking workshops and projects.

As North America's leading distributor of safety supplies, Grainger is committed to safety by partnering with our customers to keep their people safe and to operate safer facilities. As a national founding sponsor of the National Safety Council's *Journey to Safety Excellence*, Grainger's commitment to occupational safety is a pillar of our corporate philosophy.

Because of our commitment to safety, we value Barton's effort to address these critically-needed job skills throughout the region. Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety. It promises to offer a number of courses and a high- quality professional safety and occupational health training tailored to your organization's needs. Graduates would receive OSHA certificates that provide credentials that are nationally-recognized.

I believe that the approval of the degree and certificates will provide the State of Kansas with the opportunity to provide the proper technical educational training which is currently unavailable.

We look forward to building a strong partnership with Barton Community College in its effort to offer this new degree within the region and across the State.

Sincerely,

Michelle Kolinek
Government Account Relationship Manager

Revised July 2010

AGCO

www.AGCOcorp.com

Telephone (785) 738-6217
Ronald E. Harris
Vice President, Operations

March 3, 2015

Kansas Board of Regents
100 SW Jackson Street, Ste 520
Topeka, KS 66612-1368

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace are an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor AGCO Corporation, Beloit, pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.
- Opportunities for faculty and company safety personnel to meet.

We look forward to partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Ronald E. Harris
Vice President of Operations Seeding and Tillage Division AGCO Corporation
Beloit, Kansas

DIRECTOR, FORT RILEY GARRISON SAFETY OFFICE (GSO)

200 HENRY AVE., ROOM 107, FORT RILEY, KANSAS 66442

2/26/2015

Director, Fort Riley Garrison Safety Office (GSO)
200 Henry Ave., Room 107, Fort Riley, Kansas 66442

Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

To Kansas Board of Regents:

This letter is provided in order to express the significance of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state and our safety workforce here at Fort Riley.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on the safety and health of our workplace is always an area concern. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are necessary for an entry level position as well as our seasoned employees that do not have an Associate Degree in safety.

Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally. This initiative will help address a needed educational shortfall for our safety professionals and workforce by providing a foundation for those employees that currently do not have a degree as well as keeping our certifications current.

The sooner these new degree and certification programs can be implemented, the better. Doing so will provide a significant educational and technical training opportunity to Kansans

that currently unavailable anywhere in the state. In partnership with Barton the Fort Riley Garrison Safety Office will continue to execute the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for practicum projects.
- Opportunities for faculty and company safety personnel to meet.

We look forward to our continuing partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Richard E. Hearron

Mr. Richard E. Hearron
Director, Fort Riley Garrison Safety Office (GSO)

To
Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace is an increasing area of concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor Midwest Construction Co., Inc. pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.

Midwest is a small contractor. The sub-contractors that we use are usually even smaller companies with no safety personnel. The need for more safety professionals is there. When I go to the high schools career days, many times students have no idea that safety is a career choice.

We look forward to partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Jean M. McCauley
Safety Manager/Secretary/Treasurer

KANSAS Traffic Safety Resource OFFICE

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace is an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. They must also look to external causes of worker safety that will affect job performance and employer loss of productivity. Businesses incur enormous economic costs each year from traffic crashes through loss of productivity, workers' compensation, medical costs, substitute labor and higher insurance premiums. Employers pay for injuries both on and off the job, costing companies about $60 billion annually and resulting in three million lost work days.When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor Kansas Traffic Safety Resource Office pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.
- Opportunities for faculty and company safety personnel to meet.

We look forward to partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Norraine Wingfield

Norraine Wingfield
Project Director
Kansas Traffic Safety Resource Office

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace is an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor Salina Vortex Corp. pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.
- Opportunities for faculty and company safety personnel to meet.

We look forward to partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Darren Heyka
Standards Manager
Salina Vortex Corp.

Office of the Secretary
401 SW Topeka Boulevard
Topeka, KS 66603-3182

Kansas
Department of Labor

Phone: (785) 296-7474
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Lana.Gordon@dol.ks.gov
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Lana Gordon, Secretary

Sam Brownback, Governor

January 21, 2015

Kansas Board of Regents
1000 SW Jackson Street, Suite 520
Topeka, KS 66612-1368

To Whom It May Concern,

This letter is presented in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health.

As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on the safety and health of the Kansas Workforce are an increasing area of concern. Safety personnel must have a vast knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are crucial for any entry level.

Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally. This initiative will address these extensively needed job skills throughout the region.

I highly recommend that the degree and certificates be approved without delay. Doing so will provide a significant educational and technical training opportunity to Kansans which are currently unavailable in the state. In support of Barton's venture, the Kansas Department of Labor pledges the following:

- Participation on curriculum advisory boards and meetings
- Opportunities for practicum projects
- Opportunities for faculty and company safety personnel to meet.

We look forward to collaborating with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Lana Gordon

Lana Gordon
Secretary, Kansas Department of Labor

July 16, 2015

HUTCHINSON COMMUNITY COLLEGE
OFFICE OF THE PRESIDENT
1300 North Plum
Hutchinson, KS 67501-5894
620-665-3505
1-800-289-3501

Kansas Board of Regents
100 SW Jackson Street, Ste 520
Topeka, KS 66612-1368

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health and KBOR's approval of the Specialist in Safety and Health, SSH and the Certified Safety & Health Official (CSHO) SAPPs.

Hutchinson Community College has partnered with Midwest OSHA Education Center, Barton Community College as a Host site for the offering of the OSHA classes. HCC offers a number of OSHA Numbered Classes as a Host site for the Midwest OSHA Education Center.

The approval of the degree and SAPPs will further enable both institutions to meet the needs of Kansas employers, students and government agencies in the occupational safety and health fields.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace are an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I recommend that the degree and certificates be approved.

Sincerely,

Dr. Carter File
President, Hutchinson Community College

Revised July 2010

Bureau of Waste Management
Curtis State Office Building
1000 SW Jackson St., Suite 320
Topeka, KS 66612-1366

Phone: 785-296-1600
Fax: 785-296-1592 or 785-296-8909
bwmweb@kdheks.gov
www.kdheks.gov/waste

Susan Mosier, MD, Acting Secretary
Brownback, Governor

Department of Health & Environment

Sam

March 4, 2015

Kansas Board ofRegents
1000 SW Jackson Street, Suite 520
Topeka, Kansas 66612-1368

To Kansas Board of Regents:

This letter is provided in support of Barton Community College's proposal to establish an Associate of Applied Science Degree in Occupational Safety and Health. As the first and only OSHA Training Institute Education Center within the state of Kansas, Barton has established itself as the premier provider of occupational safety and health training. This new degree is a natural progression in the growth of a high quality program fulfilling the needs of a rapidly changing workforce throughout the state.

Workplace practices continue to change dramatically in the new economy. To compete more effectively many organizations have restructured and downsized workforces, increased reliance on nontraditional employment practices, employed temporary workers and adopted more flexible and lean production technologies. The resulting effects on worker safety and health in the workplace is an increasing area concern and liability. Safety personnel must have a broad knowledge of safety principles, methods, and techniques to recognize hazardous conditions and eliminate or control them. When employing safety personnel these skills are essential for entry level as well as advanced positions.

In an effort to address these critically needed job skills throughout the region, Barton Community College is proposing to establish an Associate of Applied Science Degree in Occupational Safety as well as several OSHA certificates that provide credentials that are recognized nationally.

I highly recommend that the degree and certificates be immediately approved. Doing so will provide a significant educational and technical training opportunity to Kansans which is currently unavailable in the state. In support of Barton's endeavor the Kansas Department of Health and Environment, Bureau of Waste Management pledges the following:

- Participation on curriculum advisory boards and meetings.
- Opportunities for student internship or practicum projects.
- Opportunities for faculty and company safety personnel to meet.

We look forward to partnering with Barton Community College in its efforts to offer this new degree within the region and across the state.

Sincerely,

Wally Mack
Environmental Scientist and Safety Officer
Bureau of Waste Management

APPENDIX B

Program of Study

Revised July 2010

Occupational Health and Safety

Fort Riley Campus
BARTON COMMUNITY COLLEGE

Associate in Applied Science (Total Credit Hours – 64)

GENERAL EDUCATION REQUIREMENTS
At least 18 credit hours from at least 3 of the 5 General Education curriculum areas

WRITTEN / ORAL COMMUNICATIONS			
☐ ENGL ☐ ENGL	1204 1205	English Composition I **OR** Technical and Report Writing	3
☐ BSTC ☐ BSTC ☐ BSTC ☐ BSTC ☐ OFTC ☐ BSTC	1036 1001 1023 1685 1696 1698	Computer Concepts & Applications **OR** Introduction to Computers **OR** Data Base Management **OR** Spreadsheet Applications **OR** Word Processing Applications **OR** Information Processing System Mgmt	3
TOTAL			**6**

HUMANITIES			
Fine Arts			
☐			
Language Arts			
☐ COMM ☐ ENGL ☐ COMM	1220 1236 1230	Organizational Communications **OR** Technical Communications **OR** Public Speaking	3
☐			
Philosophy / History / Religion			
☐			
TOTAL			**3**

SOCIAL and BEHAVIORAL SCIENCES			
Social Science			
☐ SOCI ☐ SOCI ☐ SOCI	1100 1104 1129	Introduction to Sociology **OR** Contemporary Social Problems **OR** Cross-Cultural Awareness **OR**	3
☐			
Behavioral Science			
☐ PSYC	1000	General Psychology	3
☐			
Economics / Political Science			
☐			
TOTAL			**3**

NATURAL SCIENCE and MATHEMATICS			
☐ MATH ☐ MATH ☐ MATH	1806 1824 1828	Technical Mathematics **OR** Intermediate Algebra **OR** College Algebra	3
☐ PHSC ☐ LIFE ☐ LIFE ☐ LIFE	1404 1413 1426 1425	Physical Geography **OR** Environmental Science **OR** Renewable Energy Sources **OR** Residential Energy Efficiency	3
☐			
TOTAL			**6**

****

REQUIREMENTS for SPECIFIC MAJOR:

MAJOR REQUIRMENTS			
☐ HZMT	1934	ISO 14000	3
☐ HZMT	1912	Industrial Hygiene & Toxicology	3
☐ HZMT	1940	Introduction to Ergonomics	3
☐ HZMT	1950	Characteristics of Hazardous Materials	3
☐ OSHA	1933	Workplace Accident Investigation	3
☐ OSHA	1927	Fundamentals of Occupational Safety and Health Construction Industry	3
☐ OSHA	1928	Fundamentals of Occupational Safety and Health General Industry	3
☐ OSHA	1929	Introduction to Fire Prevention	3
☐ OSHA	1930	Practicum in Occupational Safety & Health	3
☐ OSHA	1932	Work Practices Controls/ Safety Audits	3
☐ OSHA	1931	Safety Training Methods for Adult Learners	3
☐			
TOTAL			**33**

MAJOR ELECTIVES			
☐ HZMT	1917	DOT Regulations	3
☐ HZMT ☐ EMHS	1919 1907	Hazardous Waste Operations & Emergency Response **OR** Hazardous Materials Response Operations (OPS level)	3
☐ HZMT ☐ HZMT	1907 1909	Resource Conservation & Recovery Act **OR** Clean Air & Water Regulations	3 3
☐ OSHA	1006	Permit Required Confined Space	1.5
☐ OSHA	1007	Guide to Industrial Hygiene	2
☐ OSHA	1008	Principles of Ergonomics	1.5
☐ OSHA	1009	Fall Arrest Systems	1.5
☐ OSHA	1010	Electrical Standards	2
☐ OSHA	1011	Excavation, Trenching & Soil Mechanics	1.5
☐ OSHA	1012	Hazardous Materials	2
☐ OSHA	1013	Machinery & Machine Guarding Standards	1.5
☐ OSHA	1914	OSHA General Industry Regulations	2
☐ OSHA	1926	OSHA Construction Industry Regulations	2
☐ OSHA	1970	Trainer course in Standards for Construction	3
☐ OSHA	1971	Trainer course in Standards for General Industry	3
☐ OSHA	1972	Respiratory Protection	2
☐			
TOTAL (credits in HZMT or OSHA classes)			**13**

Review Date. 12/14
Revision Date: 12/14

Certificate Occupational Safety & Health

Fort Riley Campus
BARTON
COMMUNITY COLLEGE

Certificate (Total Credit Hours 18)

REQUIREMENTS (15 Credit Hours)			
☐ OSHA ☐ OSHA	1928 1927	Fundamentals of Occupational Safety & Health for General Industry (OR) Fundamentals of Occupational Safety & Health for Construction Industry	3
☐ OSHA	1926	OSHA Construction Industry Regulations	2
☐ OSHA	1009	Fall Arrest System	1.5
☐ OSHA	1011	Excavation, Trenching, & Shoring	1.5
☐ OSHA	1007	Introduction to Industrial Hygiene	2
☐ OSHA	1931	Safety Training Methods for adult Learners	3
☐ OSHA	1010	Electrical Standards	2
Electives (3 Credit Hours)			
☐ OSHA	1006	Permit Required Confined Space	1.5
☐ OSHA	1971	OSHA Trainer course in Standards for Construction Industry	2
☐ OSHA	1972	Respiratory Protection	2
☐ OSHA	1970	OSHA Trainer Course in Standards for General Industry	2
☐ OSHA	1012	Hazardous Materials	2
☐ OSHA	1013	Machinery and Machine Safeguarding	2
☐ OSHA	1008	Principles of Ergonomics	1.5
TOTAL			**18**

Review Date. 12/14
Revision Date: 12/14

Revised July 2010

Specialist in Safety & Health
General Industry

Fort Riley Campus
BARTON COMMUNITY COLLEGE

SAPP (Total Credit Hours 6.5)

REQUIREMENTS			
☐ OSHA	1914	OSHA General Industry Regulations	2
TOTAL			**2**

ELECTIVES			
☐ OSHA	1926	OSHA Construction Industry Regulations	2
☐ OSHA	1971	OSHA Trainer course in Standards for General Industry	2
☐ OSHA	1006	Permit Required Confined Space	1.5
☐ OSHA	1972	Respiratory Protection	2
☐ OSHA	1007	Introduction to Industrial Hygiene	2
☐ OSHA	1008	Principles of Ergonomics	1.5
☐ OSHA	1012	Hazardous Materials	2
☐ OSHA	1010	Electrical Standards	2
☐ OSHA	1009	Fall Arrest System	1.5
☐ OSHA	1013	Machinery and Machine Safeguarding	2
TOTAL			**4.5**

Review Date. 12/14
Revision Date: 12/14

Revised July 2010

Specialist in Safety & Health Construction Industry

Fort Riley Campus
BARTON COMMUNITY COLLEGE

SAPP (Total Credit Hours 6.5)

REQUIREMENTS			
☐ OSHA	1926	OSHA Construction Industry Regulations	2
TOTAL			**2**

ELECTIVES			
☐ OSHA	1914	OSHA General Industry Regulations	2
☐ OSHA	1970	OSHA Trainer course in Standards for The Construction Industry	2
☐ OSHA	1972	Respiratory Protection	2
☐ OSHA	1006	Permit Required Confined Space	1.5
☐ OSHA	1010	Electrical Standards	2
☐ OSHA	1009	Fall Arrest System	1.5
☐ OSHA	1012	Hazardous Materials	2
☐ OSHA	1011	Excavation, Trenching, & Shoring	1.5
TOTAL			**4.5**

Review Date. 12/14
Revision Date: 12/14

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

APPENDIX C

Syllabi

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

Course Number: ENGL 1204
Course Title: English Composition I
Credit Hours: 3
Prerequisites: ENGL 1194 Intermediate English or appropriate assessment score and READ 1109 Intermediate Reading with a grade of C or better or appropriate assessment score
Division/Discipline: Mathematics, English, and Essential Skills--English
Course Description: An approach to purposeful writing stressing self-expression through written communication by logical presentation of ideas with emphasis on content, organization, and mechanics.

II. CLASSROOM POLICY

Students and faculty of Barton 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 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

English Composition I is an approved general education course at Barton Community College, which can be used to fulfill degree requirements as a fundamental course acceptable as general education credit towards any degree (A.A., A.S., A.G.S., or A.A.S degree).

This course transfers well and may be used to help fulfill credit and course requirements for general education at most if not all Kansas Regents' institutions. General education requirements vary among institutions, and perhaps even among departments, colleges or programs within an institution. Also, these requirements may change from time to time and without notification. The students shall assume the responsibility to obtain relevant information from intended transfer institutions during their tenure at Barton County Community College to ensure that they enroll in the most appropriate set of courses for the transfer program. Most will ***not*** accept this course unless the student earns a ***C*** or better. Transfer equivalencies are located online at this website:
http://www.bartonccc.edu/careers/programsclasses/transfer/transferwebsites.html

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

The learning outcomes and competencies detailed in this syllabus meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES and COURSE COMPETENCIES

Barton 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.

Outcome A: Use a variety of planning strategies.

Competencies

1. Employ planning strategies that are effective for a variety of writing tasks, including, but not limited to journaling, listing, freewriting, brainstorming, clustering, reporter's questioning.

Outcome B: Employ effective narrowing strategies to draft an effective thesis.

Competencies

1. Organize an essay using outlining strategies.
2. Write an opinionated, focused thesis statement and topic sentences for a specific audience and purpose.
3. Compose a thesis that will address a specific audience.
4. Adequately test a hypothesis to determine whether it is specific and well-focused.

Outcome C: Effectively and logically organize body/topical paragraphs.

Competencies

1. Demonstrate mastery of a variety of organizational methods appropriate to the writing task, such as comparison/contrast, cause/effect, definition, problem/solution, classification, and process analysis.
2. Compose opinionated topic sentences that not only support the thesis but also direct the content of the paragraph
3. Incorporate both general and specific supporting evidence.
4. Judge whether topical paragraphs display unity, completeness, order and coherence.

Outcome D: Write introductions and conclusions appropriate to the subject, audience and purpose of the essay.

Competencies

1. Compose introductions that address a specific audience and introduce the topic appropriately.
2. Compose conclusions that effectively lend closure to the many ideas expressed within the essay's development.

Outcome E: Recognize the importance of coherence to the audience and incorporate effective and appropriate coherence devices to meet this need.

Competencies

1. Correctly use appropriate and effective transitional devices.
2. Correctly incorporate pronouns and key words as coherence devices.
3. Demonstrate proficiency in using parallel structure.

Outcome F: Compose essays that meet the standards of academic writing.

Competencies

1. Choose diction that is specific as well as vivid and appropriate for college level academic writing.
2. Compose sentences that clearly express the author's ideas.
3. Demonstrate the ability to judge writing situations when non-standard English grammar is appropriate and when it is not.
4. Write using standard English grammar.
5. Produce documents which conform to recognized (standard) guidelines such as those of the Modern Language Association (MLA), the American Psychological Association (APA), or the Associated Press (AP).
6. Avoid plagiarism by crediting any outside sources incorporated into a document using attributive tags and/or in-text references as well as works cited/ bibliographical listings.

Outcome G: Revise effectively.

Competencies

1. Evaluate the effectiveness of the relationship between the thesis and the essay to determine
   a. whether the essay develops the idea expressed in the thesis and
   b. whether the thesis accurately conveys the ideas developed in the essay.
2. Evaluate the effectiveness of the relationship between each topic sentence and its paragraph to determine
   a. whether the paragraph develops the idea expressed in the topic sentence and
   b. whether the topic sentence accurately conveys the ideas developed in the paragraph.
3. Revise paragraphs for logical presentation and complete development of ideas.
4. Revise sentences for clarity, emphasis, economy and variety.
5. Write in third person, when appropriate, following the rules for correct pronoun/antecedent agreement.
6. Employ strategies that promote the use of active voice.
7. Use conjunctions correctly, observing the conventions of parallel structure and correct punctuation.
8. Demonstrate proficiency in proofreading and editing.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: ENGL 1205
Course Title: Technical and Report Writing
Division and Discipline: English--Humanities
Course Description: This course involves the study of various composition techniques vital to a technical or professional writer. Structure, terminology, and types of reports are studied in depth.

II. CLASSROOM POLICY

Students and faculty of Barton 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, which 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, which is detrimental to the college's educational endeavors as outlined in the college catalog.

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

Anyone seeking an accommodation under provision of the Americans with Disabilities Act should notify the instructor and the BCCC Coordinator of Instructional Services.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Our goal is that the soldier or family member will develop an understanding and skill in constructive criticism, technical writing forms (explanation, analysis, instruction, and summary). Additionally the soldier or family member will gain a general understanding of military writing standards. This course is designed to introduce students to writing required in the work environment.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Technical and Report Writing is a fundamental course that may be used to fulfill program requirements and is transferable to many Kansas Regent Universities.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Barton 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

1. Demonstrate use of the writing process in completing written assignments for specific audience and purpose.
2. Write different types of technical correspondence: Letters, Summaries, Paraphrases, Short Research Reports, Memos, E-mail, Instructions, Resumes
3. Use Prewriting Techniques to overcome writer's block.
4. Write rough drafts.
5. Rewrite and revise rough drafts.
6. Practice critical thinking and problems solving skills inherent in the challenges of writing.

V. COURSE COMPETENCIES:

A. Write technical correspondence to standards of clarity, conciseness, accessible document design, audience recognition and accuracy.
B. Evaluate technical correspondence based on clarity, conciseness, accessible document design, audience recognition and accuracy.

1. Clarity
   a. Important points come first
   b. Reporter's questions answered (When, where, who, how, why, what)
   c. Specific, denotative words used
2. Conciseness
   a. Words are generally one or two syllables
   b. Sentence average 10-12 words
   c. Paragraphs do not exceed six typed lines
   d. Majority of sentences in active voice
3. Accessible Document Design

a. Highlighting techniques emphasize main points to help access
b. Highlighting techniques not overused (bullets, white space, headings, graphics)

4. Audience Recognition
   a. Defines all high-tech terms
   b. Considers audience needs
   c. Uses pronouns to involve audience
5. Accuracy
   a. Correct punctuation
   b. Correct spelling
   c. Correct grammar and usage

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

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 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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 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 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. COMPETENCIES

After successful completion of this course, students should:

1. Define technical writing and its importance in the workplace.
2. Identify the characteristics of technical writing.
3. Compare and contrast technical writing and other types of writing.
4. Identify ethics in technical writing.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

5. Determine how to meet the needs of a select and multiple audience.
6. Plan a document's purpose, scope, and medium.
7. Distinguish the differences between researching at school and at work.
8. Identify, locate, and document primary and secondary sources.
9. Evaluate and take notes from sources.
10. Identify a writing process that suits one's own writing style.
11. Plan, draft, and revise a document.
12. Prepare memorandums, letters and email that demonstrate proper format.
13. Design an effective document with appropriate graphics.
14. Determine appropriate formats for instructions.
15. Compose clear and concise instructions.
16. Compose progress and periodic reports.
17. Format, organize, and write an effective resume.
18. Format, organize and write an employment letter of application.
19. Organize and prepare an oral presentation.
20. Demonstrate interpersonal skills through working with others.
21. Apply appropriate technology to a task.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOK AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF EVALUATION
X. ATTENDANCE
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: COMM 1220
Course Title: Organizational Communication
Credit Hours: 3
Prerequisites: None
Division/Discipline: Liberal Arts and Sciences/Humanities/Communication
Course Description: This course is designed to teach and analyze the functions of organizational communication necessary to obtain and become successful in an organizational setting. This includes maintaining effective employer/employee relationships, providing effective supervisory skills, using persuasion in the marketplace and business world, and understanding the non-verbal communication factors inherent within an organization.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

II. CLASSROOM POLICY

Students and faculty of Barton 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 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

Organizational Communication is an approved general education course at BCC that can be used to fulfill degree requirements as a breadth humanities course. This course transfers well and may be used to help fulfill credit and course requirements as a communication elective at most, if not all, Kansas Regents' institutions. However, general education and major requirements vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Also, these requirements may change from time to time and without notification. Therefore, it shall be the students' responsibility to obtain relevant information from intended transfer institutions during their tenure at BCCC to insure that they enroll in the most appropriate set of courses for the transfer program.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

1. Students will recognize that there must be consistency amid change in communications. Consistent are human and organizational needs, appropriate language use and proven communication principles. Change is most evident in media and technology use, audience diversity and expectations.
2. students will focus on the communicator and the results that the communicator is able to achieve in accomplishing a task.
3. Students will recognize the appropriate media to communicate for a specific task.
4. Students will recognize quality communications that develop customer and employer/employee satisfaction.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

V. COURSE COMPETENCIES

Upon completion of this course the student should be able to:

Unit One – Communication and Professionalism (Chapters 1 – 2)

1. Recognize the impact of technology on communication in business and the professions.
2. Explain the value of one-to-one messages in building rapport and life-long relationships.
3. Describe some social, economic, and organizational shifts influencing today's business communications.
4. Distinguish between "share of market" and "share of customer."
5. Define the objective of any communication.
6. Cite the three most important expectations in effective communications.
7. Cite some myths regarding communication in the workplace.
8. Compare your skills with those required in today's workplace.
9. Determine the cost to business if poor communications exist between employees, between employer and employees or employees and customers.
10. Describe the four states of individual and organizational learning.
11. Explain the notion that the "receiver" determines the success of communications.
12. Recognize that professionalism in actions (etiquette) and communications have a great effect on the work environment.

Unit Two – Consistency and Change in Communications (Chapters 3-7)

1. Define Maslow's hierarchy of human needs.
2. Identify basic human needs that need to be satisfied while a person is on the job or when a person is working with customers.
3. State how basic human needs can be satisfied through effective communications.
4. Define "internal" and "external" customers of a business.
5. Recognize how perceptions and language use affect communications.
6. Understand the function of language and some common misconceptions about how words work.
7. Understand how personality problems can arise from the misuse of language.
8. Describe the kinds of non-verbal communications that arise in business communications.
9. State how different attitudes, beliefs, and values can be potential barriers to clear communication.
10. Recognize communication barriers caused by noise, channels, and feedback.
11. Recognize the impact communication barriers have in effective employee/employer relationships.
12. Apply audience analysis to the work environment.
13. Describe the various communication tools used successfully in organizations.
14. Recognize the problem of communication overload and some ways to deal with it.
15. Differentiate between communication efficiency and communication effectiveness.
16. Identify the widespread diversity in audiences for business messages.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

17. Cite the differences in male-female communication tendencies and how that applies to the work environment.
18. Cite potholes, turnoffs, or irritants that affect a positive work environment.
19. Describe how fun at work can be boosted by effective communications.
20. Describe some characteristics of "American style" conversation and how people from different cultural backgrounds might interpret this.

Unit Three – Document Writing Skills: Effectiveness and Change (Chapter 8-13)

1. Define the functional nature of business communications.
2. Create a conversational and efficient tone in writing by avoiding unnecessary repetition and by using simple, familiar wording, concrete nouns, and active verbs.
3. Recognize common failures in working messages.
4. Identify ten common business-writing problems that can impact both accuracy and tone of a document.
5. Cite how to avoid tone problems, such as abrasiveness, preaching, false-sincerity, and sexist language.
6. Apply Writing Skills Applicable to Business Situations including the following:
   a. Prepare a resume, application form and Compose business letters Compose memos and other business documents Compose reports and business plans Completing forms Proofread and edit for mailability standards

Unit Four – Report Writing Skills for Effectiveness and Change

1. Describe the purpose and characteristics of a successful business report.
2. Describe the five most common reports used in business.
3. Differentiate between a routine report and a special report.
4. Describe the value of an effective business report when working in a supervisory position.
5. List the four key questions involved in planning a business report.
6. Define the key elements of an effective plan or proposal.
7. Describe four basic ways to finding information for preparing a business report.
8. Describe how to plan and present budgets that will be included in a report
9. Write a business plan, business report, or proposal.

Unit Five Speaking and Listening Skills for Effectiveness and Change (Chapters 14-15)

1. Describe the difference between listening and hearing.
2. Describe the various factors that complicate listening.
3. Explain the difference between support listening and retention listening.
4. Explain information overload.
5. Identify poor listening habits.
6. Describe situations where faulty listening and speaking can cost a company customers, employees or money.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

7. Identify and distinguish among the four types of oral communications commonly used in business.
8. Cite the six nonverbal variables that can affect the speaker's total image.
9. Identify six common mistakes that can detract from the speaker's message.
10. Identify four factors that determine your perceived credibility in a given situation.
11. Explain how to participate in or lead a problem solving meeting more effectively.
12. Describe the three phases of a participative, problem-solving meeting.
13. Distinguish between the two general reasons for meetings.
14. List the four ways the group process can backfire, resulting in poor decisions.
15. Identify eight ways to effectively participate in meetings.

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: COMM 1230
Course Title: Public Speaking
Credit Hours: 3
Prerequisites: None
Division and Discipline: Liberal Arts and Sciences/Humanities/Communication
Course Description: This course includes a study of the theoretical principles underlying effective communicative behavior, and the practical application of those principles in various communicative exercises and assignments. The course is designed to increase the awareness of the importance of speech communication in today's society and develop competency of speakers.

II. CLASSROOM POLICY

Students and faculty of Barton 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Plagiarism on any academic endeavors at Barton 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

Public Speaking is an approved general education course at BCCC, which can be used to fulfill degree requirements as a fundamental oral communication course. In addition, it is a required class for those students majoring in communications. This course transfers well and may be used to help fulfill credit and course requirements for general education at most, if not all, Kansas Regents' institutions. However, general education requirements vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Also, these requirements may change from time to time and without notification. Therefore, it shall be the students' responsibility to obtain relevant information from intended transfer institutions during his (her) tenure at Barton Community College to insure that he (she) enrolls in the most appropriate set of courses for the transfer program. It is recommended that the student retain this syllabus until transfer has been completed.
The learning outcomes and competencies detailed in this syllabus meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

This course is intended to:

1. develop a high degree of understanding and skill in effective oral communication
2. address participation, problem solving, audience analysis
3. develop the use of informative or persuasive communication in a public speaking situation
4. foster a desire to give and receive purposeful and constructive criticism.
5. create effective oral communication that generates messages and delivers them with attention to vocal variety, articulation and nonverbal signals.

V. COURSE COMPETENCIES

After completing the course a competent speaker and thus a competent listener should be able to recognize and exhibit the following competencies:

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

1. Determine the purpose of oral discourse.
2. Choose and restrict a topic according to the purpose and the audience, recognizing main ideas, and supporting details.
3. Discriminate between fact and opinion and between emotional and logical arguments.
4. Fulfill the purpose of oral discourse by providing adequate support in a suitable organizational pattern.
5. Demonstrate careful choice of words and provide effective transitions.
6. Transmit the message by using delivery skills employing vocal variety; clear articulation.
7. Demonstrate language and nonverbal behavior appropriate to the audience.
8. Detect bias and prejudice and how they impact a spoken message
9. Synthesize and evaluate by drawing logical inferences and conclusions.
10. Employ active listening techniques when appropriate.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS

XII. GENERAL COURSE INFORMATION

Course Number: SOCI 1100
Course Title: Introduction to Sociology
Credit Hours: 3
Prerequisite: None
Division and Discipline: Liberal Arts and Sciences/Social Science/Sociology
Course Description: The course is a study of human social environments. Particular emphasis is given to the origin and nature of society and its institutions, general principles of sociology, and the influence of culture on the individual. Applications of these principles will be made to current social problems.

XIII. CLASSROOM POLICY

Students and faculty of Barton 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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 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.

XIV. COURSE AS VIEWED IN TOTAL CURRICULUM

A student will learn to recognize how the individual shapes society and is in turn molded by it. Students will acquire knowledge of their society that will provide them a foundation for the other curriculum and careers. The class is a survey course and will provide the basics for more specialized study in sociology.

The learning outcomes and competencies detailed in this syllabus meet, or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

XV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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

The major objective of this course is to familiarize the student with the field of sociology. We will begin with an overview of sociology: its history, perspectives, methodology, concepts, and theories that sociologists use to describe and analyze human societies. Our study of these topics will provide a foundation for an exploration into important features of social life and various ways that social structure/social forces affect the lives of groups and individuals within a society.

Specific Course Objectives

1. To develop or improve students' skills in analyzing sociological data and in drawing informed conclusions about those data.
2. To develop or improve students' skills in differentiating between good data and bad data.
3. To develop critical thinking skills that are necessary to assess arguments based on social fact, myth, or analogy.
4. To develop (through examinations, papers, and discussions) the clear persuasive written and oral style that are the marks of an educated person.
5. To help students gain basic factual knowledge of the society in which they participate and create through their thoughts, feelings, and behaviors.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

XVI. COURSE COMPETENCIES

The learning outcomes and competencies detailed in this syllabus meet, or exceed, the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

After completing this course, the student will be able to:

1. Describe the historical context of the development of sociology.
2. Define sociology and compare it to other social science disciplines.
3. Compare social structure and social action.
4. Explain what sociologists mean by social structure.
5. Apply the sociological imagination to a specific situation.
6. Discuss the classical theories of Marx, Durkheim. Weber, and Simmel.
7. Compare and contrast conflict theory and functional theory.
8. Identify and describe the interactionist theories of exchange, role and status, dramaturgical, and symbolic interactionism theories.
9. Explain the concepts of social categories, status, role, role expectation, role strain, and role conflict.
10. Describe the scientific method including the research methods used - field research, survey research, and experiments - and identify ethical issues.
11. Identify independent and dependent variables and describe correlation, causation, and spurious correlation.
12. Explain the concepts of norms/material culture (technologies) and norms/non-material culture (ideologies), and cultural lag.
13. Describe norms - folkways & mores, values, and how they are related to a culture and/or subculture.
14. Identify the relationship between culture, sub-culture, and ethnicity; and define ethnocentrism.
15. Describe the interplay between language and culture.
16. Describe the process of socialization using social learning, and cognitive learning perspectives and apply the ideas of George Mead and Jean Piaget.
17. Apply the ideas of social networks and social capital to specific situations.
18. Define deviance and social control and describe the major sociological theories of crime - anomie/strain, labeling, differential association, cultural transmission, and social control theory.
19. Discuss issues of social inequality - gender, race and ethnicity, social class, age, and sexual orientation.
20. Identify local, national, and global dimensions of social stratification.
21. Compile a list of the major social institutions - family, economy, politics, religion, education, and healthcare - describe how they are related.
22. Describe the Impact Religion, Politics, and Economics have on behavior.
23. Discuss USA healthcare system, epidemiology, life expectancy, infant

mortality rate, fee-for-service system, and development of managed care.
24. Define demography and explain the demographic transition and issues surrounding world population, increasing urbanization, and environment.
25. Compare hunting and gathering, horticultural/pastoral, agricultural/agrarian, industrial, and postindustrial societies and discuss impact on culture.
26. Describe how technological development changes culture and society.
27. Explain the dynamics of collective behavior and describe what sociologists mean by the term social movement.

XVII. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
XVIII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
XIX. REFERENCES
XX. METHODS OF INSTRUCTION AND EVALUATION
XXI. ATTENDANCE REQUIREMENTS
XXII. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: SOCI 1104
Course Title: Contemporary Social Problems
Credit Hours: 3
Prerequisites: None
Division/Discipline: Liberal Arts and Sciences/Sociology
Course Description: This course provides a framework for identifying, exploring, and evaluating social problems today. Students are encouraged to distinguish knowledge from values in their own attitudes about what constitutes a "social problem" and in their assessment of current programs aimed at alleviation of social problems.

II. CLASSROOM POLICY

Students and faculty of Barton 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Plagiarism on any academic endeavors at Barton 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

This course will be an investigation of the causes and possible solutions to many of the social problems facing modern society.
Contemporary Social Problems is an approved general education course at BCC, which can be used to help fulfill degree requirements as a depth social science course in the Social/Behavior Sciences. This course transfers for credit to all Kansas Regent Universities, and may be used to help fulfill program requirements. 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. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

The major objective of this course is to familiarize the student with a number of specific social problems; such as crime, drug and alcohol abuse, family violence, health and illness, environmental problems, race relations, etc. and, to determine what actions are being taken to alleviate the problems; and what future actions may or may not be under consideration.

V. COURSE COMPETENCIES

Upon completion of this course student will be able to:

1. Define what a social problem is.
2. Describe the process of how some patterns of human behavior become defined as social problems.
3. Discuss the relationship of government and the economy to the cause and alleviation of social problems.
4. Apply concepts to social problems facing the family.
5. Analyze the changes in healthcare and healthcare systems.
6. Evaluate the relationship between poverty and social problems.

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7. Demonstrate an understanding of the problems and contributions of a diverse racial and multiethnic culture.
8. Analyze the extent to which social structure determines different outcomes by race, ethnicity, gender, age, and sexual orientation.
9. Discuss social problems related to crime and the criminal justice system.
10. Evaluate the effect of alcohol and other drugs and relationship to other social problems.
11. Analyze the extent to which human population growth contributes to environmental and other social problems.
12. Develop materials for and discuss ways in which education, science, and technology contributes to both the cause and alleviation of social problems.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: SOCI 1129
Course Title: Cross Cultural Awareness
Credit Hours: 3
Division and Discipline: Business and Social Science Division
Course Description: The purpose of this course is to assist students in developing an awareness of cultural backgrounds, attitudes, and experiences. The class is also intended to create an awareness of one's own individual respect for human dignity and individual rights both for oneself and others in our increasingly pluralistic society.

II. CLASSROOM POLICY

Students and faculty of Barton 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, which 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Plagiarism will not be tolerated. Plagiarism includes (but is not limited to) using someone else's work and passing it off as your own, giving another student your work to pass off as their own, etc.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify the instructor and the BCC Assistant Dean of Fort Riley Learning Services.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Cross Cultural Awareness is a second-level Sociology course that expands on cultural concepts introduced by SOCI 1100, Introduction to Sociology. Cross Cultural Awareness is a breadth course and is an approved general education course at BCC. This course transfers for credit to many Kansas Regent Universities, and may be used to help fulfill program requirements. 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. It is the student's responsibility 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. OBJECTIVES

Barton 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.

At the completion of this course, the student will have a greater awareness of the complexity of cultural traditions and experience, and their effects on human interaction. The course will provide information that can be used to diffuse conflict and create harmony between people of divergent backgrounds.

V. COMPETENCIES

"The learning outcomes and competencies detailed in this syllabus meet, or exceed, the learning outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents."

The student will:

1. define the major components of culture-symbols, language, beliefs, values, attitudes, behaviors, and artifacts
2. define the primary stratifications of culture-race/ethnicity, gender, class, religion, and age
3. define the communicative dimensions of culture-self and others, roles and scripts, environment, use of time/space, display of emotions, etc.
4. articulate the effects of culture on sensation and perception
5. explain the different roles of language in translation and interpretation in cross-cultural encounters

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

6. identify the five most common barriers to cross-cultural communication-language, non-verbal communication, stereotypes, cultural bias, and stress
7. articulate major ethical and problematic aspects in the study of culture
8. identify workplace diversity issues, and articulate strategies for resolving conflicts
9. identify major cultural groups within the United States
10. define the major methods of cultural transmission
11. define the major dimensions of culture and the application of value orientation theory
12. will discuss the major aspects of acculturation, assimilation, conformity, and multiculturism in the formation of cultural identities
13. will apply principles of comparing cultural patterns to the study of a different culture

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIRMENTS

BARTON 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 with a grade of C or better OR having passed Module 4 in College Preparatory Mathematics OR an appropriate placement score
Division/Discipline: Mathematics, English, and Essential Skills--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 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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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.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Barton 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.

Students completing the course should have an understanding of how to apply mathematical techniques (arithmetic, algebra, geometry and statistics) to problems in various vocational fields.

V. COURSE COMPETENCIES

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

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. Identify prime numbers
5. Write the prime factorization of a number
6. Convert between fractions and decimal numbers

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

7. Perform arithmetic operations containing decimals
8. Round numbers to the correct number of significant figures
9. Change a percent to a decimal
10. Change a decimal to a percent
11. Change a fraction to a percent
12. Change a percent to a fraction
13. Solve problems involving percent, rate and base
14. Perform arithmetic operations with signed numbers
15. Perform arithmetic operations containing fractions
16. Perform calculations with powers of 10
17. Write a decimal number in scientific notation
18. Write a number in scientific notation in decimal form
19. Record measurements in English and metric systems
20. Convert measurements within and between systems
21. Solve problems involving proportions and percentages
22. Solve application problems involving basic arithmetic operations, measurement, and percentage
23. Simplify algebraic expressions
24. Use formulas to solve for an unknown quantity
25. Express ratios of two items
26. Solve proportions
27. Solve linear equations
28. Solve application problems yielding linear equations
29. Calculate the slope of a straight line
30. Calculate perimeter and area of a triangle
31. Calculate the circumference and area of a circle
32. Calculate volume and surface area of cylinders, pyramids, cones and spheres
33. Understand basic statistics

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: MATH 1823
Course Title: Fundamentals of Mathematics

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Credit Hours: 3 Credit Hours
Prerequisite: 1821 Basic Algebra with a C or better or appropriate ASSET score.
Division/Discipline: Math and Natural Science Division, Mathematics Department
Course Description: A general education course designed to make the student aware of mathematics as an integral part of his daily life. The emphasis will be upon applying mathematics to problems of our society. Topics covered include: real number properties, consumer math, computers, equations, inequalities, graphs, geometry, probability, and statistics.

II. CLASSROOM POLICY

Students and faculty of Barton 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.

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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

Fundamentals of Mathematics is an approved general education course at BCCC, which can be used to fulfill degree requirements as a fundamental mathematics course.

This course is a broad coverage of many topics. The purpose of this course is not only to develop an appreciation for mathematics, but also to develop the skills necessary to make the student more employable and to allow him/her to apply mathematics to everyday life. This course will provide a base from which students can proceed to more advanced work.

This course transfers to some of the regent universities as a three credit hour math elective. However, requirements vary among institutions, and even within departments, and often without much notification. 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 the transfer program.

IV. COURSE OUTCOMES (BROAD OBJECTIVES)

This course is intended to:

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

1. Provide comprehensive coverage of topics appropriate for a mathematics survey course.
2. Investigate problem solving strategies.
3. Present the historical context of mathematical ideas.

V. COURSE COMPETENCIES

Upon the successful completion of this course the student should be able to:

1. Identify sets, relations and operations.
2. Interpret and use Venn diagrams in solutions to problems.
3. Distinguish prime and composite numbers.
4. Find the prime factorization of composite numbers and find GCM and LCM.
5. Identify an arithmetic sequence or a geometric sequence.
6. Identify the properties of whole numbers.
7. Apply the order of operations.
8. Convert rational numbers into decimals and decimals into percents.
9. Solve linear equations and inequalities that apply to word problems.
10. Solve ratios, proportions, and variations.
11. Solve quadratic equations using several techniques.
12. Graph linear and quadratic equations in the Cartesian plane.
13. Describe and find slope of a line and write the equation of a line.
14. Solve a system of two equations and two unknowns.
15. Graph the solution set of inequalities.
16. Classify angles and understand relationships between angles.
17. Identify curves and polygons.
18. Find the perimeter and area of plane figures and the volume and surface area of solids.
19. Use properties of similar triangles.
20. Utilize combinations and permutations.
21. Understand probability using multiplication and addition rules.
22. Understand frequency distributions and graph data sets.
23. Calculate median, mode, mean, range, and standard deviation.
24. Calculate simple and compound interest while understanding consumer credit and purchasing.

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXT AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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I. GENERAL COURSE INFORMATION

Course Number: MATH 1824
Course Title: Intermediate Algebra
Credit Hours: 3
Prerequisite: MATH 1821 Basic Algebra with a grade of C or better or appropriate placement score
Division/Discipline: Mathematics, English, and Essential Skills--Mathematics
Course Description: Topics include properties of real numbers, linear and quadratic equations, equations of lines, operations on polynomials and factoring, operations on rational expressions, functions, graphs of linear and quadratic functions, complex numbers, integer and rational exponents, radicals, systems of linear equations, and linear and quadratic inequalities.

II. CLASSROOM POLICY

Students and faculty of Barton 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.

Plagiarism on any academic endeavors at Barton 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

This course is designed to prepare the student, who has completed a study of basic algebraic concepts, for successful completion of College Algebra. The course will strengthen many concepts learned in Basic Algebra and will introduce several of the concepts which will be explored in depth in College Algebra. Intermediate Algebra is a general education course and may be used to help fulfill credit requirements. 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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

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Barton 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.

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. Exhibit mastery of core competencies for the course.

V. COURSE COMPETENCIES

Arithmetic and Algebraic Manipulation

1. Factor quadratic, quadratic forms, special forms and grouping
2. Perform addition, subtraction, multiplication, and division on rational expressions
3. Simplify complex fractions
4. Apply the laws of exponents to simplify expressions containing rational exponents
5. Apply the laws of radicals to perform, addition, subtraction, and multiplication
6. Rationalize denominators containing radicals
7. Simplify radicals containing negative radicands
8. Perform operations with complex numbers
9. Evaluate functions using function notation

Equations and Inequalities

1. Solve linear inequalities in one variable showing solution on a number line and in interval notation
2. Solve literal equations including those that require factoring
3. Solve systems of linear equations in two variables
4. Solve equations by factoring and quadratic formula
5. Solve equations containing rational expressions
6. Solve equations containing radicals
7. Solve linear absolute value equations and inequalities in one variable
8. Develop and solve mathematical models including variation, mixture, motion, work and geometrical applications

Graphs on a Coordinate Plane

1. Graph linear inequalities
2. Graph quadratic functions

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Analysis of Equations and Graphs

1. Determine an equation of a line given two points, perpendicular to a given line, through a specific point, parallel to a given line through a specific point
2. Calculate the distance between two points
3. Distinguish between functions and non-functions using the vertical line test
4. Identify the domain and range of a function given its graph

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOK AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: MATH 1828
Course Title: College Algebra
Credit Hours: 3
Prerequisite: MATH 1824 Intermediate Algebra with a grade of C or better OR having passed Module 12 in College Preparatory Mathematics OR appropriate placement score
Division/Discipline: Academics/Mathematics and Science
Course Description: A study of polynomial, rational, exponential, and logarithmic functions and their graphs; complex numbers, systems of equations and inequalities, and an introduction to matrices and determinants. Additional topics may include conic sections, partial fractions, sequence and series, discrete mathematics, probability, and the binomial theorem.

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services. Additional information about academic integrity can be found at the following link:
http://academicintegrity.bartonccc.edu/

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

College Algebra fulfills the college-level math requirement for all associate degrees offered at Barton County Community College. The purpose of the course is to familiarize students with algebraic principles and to prepare them for higher level mathematics courses.

College Algebra is a fundamental course and is an approved general education course at Barton County Community College. This course is transferable to all Kansas Regents' Institutions and may be used to help fulfill program requirements. 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. It is the student's responsibility to obtain relevant information from intended transfer institutions to ensure that the courses the student enrolls in are the most appropriate set of courses for the transfer program. http://bartonccc.edu/transfer/schools

The learning outcomes and competencies detailed in this course outline or syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups project for this course, as approved by the Kansas Board of Regents.

IV. ASSESSMENT OF STUDENT LEARNING

Barton 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.

1. Identify characteristics and perform operations on functions.
   a. Recognize and distinguish between functions and relations.
   b. Use functional notation.
   c. Determine the domain and range of a function.
   d. Find the intercepts of a function.
   e. Write the equation that describes a function.
   f. Write the equation of a circle given its description.
   g. Find arithmetic combinations and composites of functions.
   h. Find the inverse of a function.
   i. Use graphing transformations to sketch the graph of a function including linear, quadratic, absolute value, square root, and cubic.
   j. Graph a piecewise-defined function.
   k. Solve an equation involving radicals.
   l. Determine if a function is symmetric around the y-axis or origin.
2. Identify characteristics and analyze polynomial functions.
   a. Solve a formula for a variable.
   b. Solve a linear equation in one variable.

c. Solve a linear inequality in one variable.
d. Solve an absolute value equation.
e. Solve an absolute value inequality.
f. Solve a quadratic equation using various methods.
g. Solve a polynomial equation.
h. Solve a polynomial inequality.
i. Find the slope between two points.
j. Write the equation of a line given parameters such as slope, points, and parallel/perpendicular lines.
k. Find the vertex of a quadratic function.
l. Graph a quadratic function using the vertex, intercepts and concavity.
m. Find the minimum/maximum of a quadratic function in the form of an application problem.
n. Find the zeros of a polynomial function and write a polynomial function as a product of linear factors.
o. Sketch the graph of a polynomial function using concepts of end behavior, zeros, and multiplicities of zeros.

3. Identify characteristics and analyze rational functions.
   a. Solve rational equations in one variable.
   b. Solve a rational inequality in one variable.
   c. Sketch the graph of a rational function using asymptotes, intercepts and "holes" in the graph.
4. Identify characteristics and analyze exponential functions.
   a. Solve an exponential equation in one variable.
   b. Sketch the graph of an exponential function using intercepts and asymptotes.
5. Identify characteristics and analyze logarithmic functions.
   a. Apply the properties of logarithms to simplify expressions.
   b. Solve a logarithmic equation in one variable.
   c. Sketch the graph of a logarithmic function using intercepts and asymptotes.
   d. Evaluate logarithmic expressions using various methods including change-of-base to approximate.
   e. Solve application problems including growth and decay and compounding interest.
   f. Use models to make predictions.
6. Solve systems of equations and inequalities in two variables.
   a. Solve a system of equations in two variables by various methods including graphing, substitution and addition (elimination).
   b. Solve a system of inequalities in two variables by graphing.
   c. Solve a system of equations in three variables using various methods including Gaussian Elimination and matrices.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS

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X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
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I. GENERAL COURSE INFORMATION

Course Number: Physical Science 1404
Course Title: Physical Geography
Credit Hours: 3
Prerequisite: None
Division and Discipline: Physical Science
Course Description: A study of the geographic factors of our physical environment, including climate, terrain, soils, land-forms, the seas, economic sources, cartographic elements and an introduction to regional studies.

II. CLASSROOM POLICY

Students and faculty of Barton 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, which is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

All students are required to produce their own work, unless the activity has been designated as a collaborative activity by the instructor. Any student found to be guilty of dishonest course work risk losing credit for the particular activity.
The college reserves the right to suspend a student for conduct, which is detrimental to the college's educational endeavors as outlined in the college catalog.
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Anyone seeking accommodations under provisions of the Americans with Disability Act should notify the instructor and the BCC Coordinator of Instructional Services.
Students who arrive late or must leave early are disruptive to the class and should make every effort to minimize the impact of their arrival or departure from the classroom during class period.
Students who decide to drop the class must inform a counselor no later than five working days. If you fail to inform a counselor within five days you will not be allowed to drop the class.

III. COURSE AS VIEWED IN TOTAL CIRRICULUM

This course gives introductory student's basic understanding of Physical Geography. The course is designed as an overview of the Earth's global environment and focuses on the interaction of the various physical phenomena in nature. The course is divided into three sections. Part one discusses Energy pattern and the atmosphere. Part two focuses on Water and Weather. Part three discusses Tectonics and Weathering.

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Physical Geography is a breadth course and is an approved general education course at BCCC.

This course transfers for credit to many Kansas Regent Universities, and may be used to help fulfill program requirements.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

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Course Outcomes

1. Students will understand the, the energy atmosphere, the water, weather, climate, and Earth-Atmosphere systems.
2. Students will understand the interrelationships in the environment.

V. COURSE COMPETENCIES

After completing the course students should be able to do the following:

1. Define the Science of Geography and it's disciplines.
2. Explain the Suns interaction with the Earth.
3. Identify the pathways of solar radiation through the atmosphere and it's interaction with the surface.
4. Discuss the development of the Earth's Atmosphere.
5. Diagram and explain the levels of the Earth's Atmosphere.
6. Understand the sources of pollution and it's effect on the environment.
7. Define temperature and sensible heat.
8. Explain variable factors that can influence temperature.
9. Distinguish between marine and continental climates.
10. Understand climate classification systems.
11. Explain the driving forces in the atmosphere.
12. Discuss the conditions for precipitation formation.
13. Identify and explain the classes of clouds.
14. Identify atmospheric lifting mechanisms.
15. Understand the effects local conditions have on weather.
16. Explain the formation of violent weather.
17. Understand and illustrate the hydrologic cycle.

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18. Explain the distribution of Earth's water.
19. Diagram Earth's geologic layers.
20. Explain the geologic cycle.
21. Discuss plate tectonic theory.
22. Explain Earthquakes and Volcanism.
23. Understand weathering processes.

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
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I. GENERAL COURSE INFORMATION

Course Number: LIFE 1413
Course Title: Environmental Science
Credit Hours: 3 Credits
Prerequisite: None
Division/Discipline: Liberal Arts and Sciences/Natural Sciences
Course Description: A study of current environmental conditions, issues, and problems. Students will study the different types of ecosystems, the use and availability of natural resources, population dynamics, and environmental risks. Students will also explore possible solutions to such environmental issues as global warming, acid rain, extinction of species, and energy waste by examining current scientific and political thought.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This 3-credit lecture course is especially designed for students who have an interest in the outdoors, ecological processes, and the influence that humans exert on their natural surroundings. When this course is successfully completed together with LIFE 1414 (Environmental Science Lab; 2 credits), these two courses collectively fulfill the lab science general education requirement at Barton County Community College.

This course transfers well and may be used to help fulfill credit and course requirements for general education at some of the Kansas Regents' institutions. However, general education requirements vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Also, these requirements may change from time to time without notification. Therefore, it shall be the student's responsibility to obtain relevant information from intended transfer institutions during his (her) tenure at Barton County Community College to insure that he (she) enrolls in the most appropriate set of courses for the transfer program.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

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This course is intended to provide students with:

1. An overview of the structure and function of ecosystems and the various kinds of ecosystems on Earth.
2. An understanding of population dynamics (including exponential growth) and the reasons why the increase of the human population rests at the heart of many environmental concerns.
3. An appreciation for the need to preserve biodiversity.
4. An understanding of the problems associated with the quantity and quality of water, food, fiber, and other natural resources.
5. An appreciation of how human behavior (including political and social forces) influence environmental health the quality of life.
6. An understanding of various forms of pollution and how excessive pollution is either prevented or treated to minimize its effects on the quality of life.
7. Knowledge of energy conversion processes and the advantages and disadvantages of the major types of energy (fossil fuels, solar, nuclear, etc.).

V. COURSE COMPETENCIES

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Upon completion of the course, the student should be able to:

1. Recognize and describe the relationship between human population size, natural resource use (and abuse), and an environmental ethic.
    1. Identify at least one human culture or society (either historically or currently) that
        a. failed to develop an environmental ethic and suffered the consequences;
        b. recognized the importance of an environmental ethic and benefited from that ethic.
2. Briefly describe the history of the recent environmental movement in the United
3. States by relating the following individuals, groups, events, etc. that were associated with important environmental activities and the approximate dates of those activities.
4. Define stewardship and the importance of this concept in preserving biodiversity.
5. Describe the relationship between the use of DDT and the endangerment of various birds.
6. Relate recent human population increases with changes in the rates of natural resource consumption, soil degradation, atmospheric changes, and the loss of biodiversity and the importance of these changes to the future of humankind.
7. Explain the origin of the term sustainable development
8. List the major and minor components of ecosystems, and describe the relationships among these various components of an ecosystem.
9. Generally describe the major biomes on Earth with regard to temperature and annual precipitation.
10. Diagram and label a real or hypothetical food chain and food web.
11. Identify a specific example of each of the following: producer, primary consumer, secondary consumer, tertiary consumer, detritivore (detritus feeder), and decomposer.
12. Describe the important role that detritivores and decomposers play in the ecosystem.
13. Explain how the niche of organisms relates to the potential for competition between or among species.
14. Explain how the law of tolerance (limits of tolerance) for a species relates to distribution and how it might be affected by environmental change.
15. Differentiate among the following terms: atom, molecule, compound, biotic, and abiotic.
16. Define energy and list at least six different forms of energy.
17. Describe energy flow into, through, and out of ecosystems.
18. Understand how population's levels are affected by factors such as biotic potential, recruitment, death, and environmental resistance.
19. Describe two extreme examples of different reproductive strategies and how each contributes to continuation of the species.
20. Differentiate between threatened and endangered.
21. Describe how territoriality relates to competition and population structure.
22. Explain how the carrying capacity is related to population increase and population stability.
23. Differentiate between the J-shaped and S-shaped population growth curves.
24. Describe the process of ecological succession in a given area.
25. Differentiate between primary and secondary succession.
26. Describe what is meant by ecological stability.
27. Generally describe what is meant by adaptation, and list at least specific examples of adaptation in plant or animals.

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28. Define evolution in the most general sense; then, define biological evolution.
29. Define species and describe how different species remain distinctive from one another.
30. Compare and contrast artificial selection and natural selection.
31. Explain how genes and DNA are related to the process of biological evolution.
32. Explain the manner in which new species arise or are formed (speciation).
33. Provide evidence for long-term, large-scale changes that have occurred on Earth.
34. Explain the concept of a "population explosion," and relate it to the condition of the human world population in the 1990s.
35. Differentiate between total fertility and replacement fertility.
36. Explain the proportional relationship between negative environmental impact and population size, consumptiveness of lifestyle, and environmental regard.
37. Differentiate between immigration and emigration, and explain how both potentially influence a country's ability to deal with human population and environmental concerns.
38. Explain how affluence influences environmental concerns in a positive and negative manner.
39. Characterize and contrast the projected demographics of developed and developing countries during the next 30-40 years.
40. Contrast the doubling times typical of populations in developed and developing countries.
41. Explain the origin and function of the World Bank.
42. Describe how the debt crisis has affected both developing nations and the environment of these nations.
43. Graph the relationship between total fertility rate and per capita income.
44. Define the golden rules and importance of sustainable agriculture.
45. Compare and contrast the meanings of hunger, malnutrition, and undernutrition and their effects on humans.
46. Describe and understand the root causes of hunger around the world.
47. Describe at least three characteristic of sustainable agriculture.
48. List and briefly describe at least four general characteristics of soils that relate to overall soil fertility.
49. Name the three major types of soil particles based upon particle size and generally compare these particle sizes relative to water infiltration, water-holding capacity, nutrient-holding capacity, aeration, and workability.
50. Generally describe nutrient flow in the soil ecosystem.
51. Compare and contrast topsoil and subsoil relative to soil particle size, coloration, amount of humus, and water-holding capacity.
52. Differentiate among splash, sheet, and gully erosion. What is a "desert pavement," and how is it formed?
53. List and briefly describe the three agricultural practices that expose the soil to increased erosion.
54. Create a list of at least five different kinds of pests, depending upon their "noxious, destructive, or troublesome" nature.
55. Differentiate among the various kinds of "pesticides."
56. Compare and contrast "chemical control" of pests and "ecological control" of pests, and relate both to integrated pest management (IPM).
57. Contrast the "first-generation" and "second-generation" pesticides in terms of their chemical makeup, their synthesis, and their relative toxicity to man.
58. Describe some problems that typically stem from the use of chemical pesticides.
59. List and describe the four categories of natural (biological) pest control.

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60. Describe society's influence on the tendency for farmers, gardeners, and orchards to use pesticides.
61. Describe the concept of integrate pest management (IPM).
62. Compare the amount of fresh water on the earth to the amount of salt water present.
63. Describe, diagram, and label the hydrologic cycle.
64. Differentiate among the following terms: water quality vs. water quantity; freshwater vs. salt water; hard water vs. soft water.
65. Differentiate between consumptive and non-consumptive uses of water.
66. Describe how saltwater intrusion occurs and the consequences of this process.
67. Describe at least three consequences or events associated with storm water mismanagement.
68. Define pollution in human terms and understand how nonbiodegradable materials add to the effects of pollution.
69. Name and briefly describe the various kinds of plants and microscopic plants (e.g., algae) that are grouped according to the habitat in which each is found, i.e. a freshwater lake or pond.
70. Differentiate between the oligotrophic and eutrophic conditions of lakes and ponds. Describe the interrelationships between the amount of aquatic detritus, biochemical oxygen demand (BOD), rate of decomposition, and dissolved oxygen.
71. Understand the ecological significance and effects of cultural eutrophication.
72. Compare the productivity of freshwater wetlands and salt marsh with that of other biomes.
73. Generally describe the ecological effects and potential human health effects of not treating sewage and wastewater.
74. Understand the types of pollutants that occur in raw sewage and the various types of phases of raw sewage treatment. Also understand environmental implications of materials released from sewage treatment.
75. List and describe the four major hazardous properties of hazardous materials.
76. Also understand the origins of numerous hazardous materials and their effect on the environment.
77. Describe the following three techniques for hazardous waste disposal: deep-well injection, surface impoundments, and landfills.
78. Describe the structure of the atmosphere (i.e., its major layers) and how these layers relate to the atmosphere's temperature profile and protection by the ozone layer.
79. Understand basic climatic terms and the relationship between the climate and air pollution.
80. Know different types of air pollutants and their effects on human health and the environment.
81. Understand the environmental implications of destruction of the ozone layer.
82. Describe various technologies that are used to remove particulates from combustion fumes from factories and automobiles.
83. Know the pH ranges for acids and bases and the logarithmic nature of the pH scale.
84. Compare and contrast acid deposition and acid precipitation. Describe the causes and effects of acid precipitation with regard to human activities and the environment.
85. Name the gases that contribute to the greenhouse effect. Describe the process by which global warming occurs and consequences of this phenomenon.
86. Understand the importance of ozone in the atmosphere and its role in protecting humans from harmful UV radiation.
87. Explain how forests are affected by intensive logging (e.g., by clear cutting).
88. Generally describe the trend in the last few decades for the marine fisheries industry.

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89. Differentiate between preservation and conservation of natural resources. Which of these works within the framework of "maximum sustainable yield?"
90. Describe the general composition of municipal solid waste (e.g., percentages of various materials). Explain current trends in solid waste disposal, i.e. recycling, composting, combustion.
91. List and describe some of the problems associated with landfills and the selection of landfill sites.
92. Describe how a waste-to-energy facility operates and know the advantages of such a facility.
93. List and describe the three solutions to better managing solid wastes.
94. Know the kinds of fossil fuels and the outlook for future use of these resources.
95. Differentiate between renewable and non-renewable energy sources.
96. Generally describe the patterns of usage of coal, oil, natural gas, and nuclear power during the past century. Understand the implications of this country's dependence on foreign oil sources.
97. Describe the principle behind generating nuclear power and the hazards and safety precautions associated with radioactive wastes. Know the following terms: isotope, atomic number, atomic mass, fission, fusion, and chain reaction
98. List and describe alternative fuels that have promising potential for the future and cleaning up the environment.
99. Describe the importance of ecosystems as a natural resource.
100. Differentiate between various types of public and private lands
101. Explain the term "urban sprawl" and identify current urban trends and their effects on the environment. Identify the importance of limiting the urban sprawl as it relates to food production.

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOK AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
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I. GENERAL COURSE INFORMATION

Course Number: LIFE 1425
Course Title: Residential Energy Efficiency
Credit Hours: 3
Prerequisite: None
Division/Discipline: Environmental Technology
Course Description: This course is designed to provide the student with information on the principles, methods and materials that have proven to be effective in improving the energy efficiency of residential buildings. All necessary components of effective use of energy in residential buildings will be covered.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course introduces the student to Residential Energy Efficiency principles. All aspects of cost savings and comfort for existing buildings will be covered. It is designed to provide students with an opportunity to apply efficient energy practices and concepts through research and review of current literature.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Barton 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:

1. Define the principle elements of energy.
2. Understand the basic concepts of building design and air flow.
3. Describe the principles of air leakage and how to correct them.
4. Identify the characteristics of effective insulation.
5. Describe the various windows and doors used to increase energy efficiency.
6. Identify the types of heating systems used to increase energy efficiency.
7. Understand the concepts of effective lighting and appliances.
8. Identify effective cooling systems.
9. Describe water-heating energy use.
10. Define the effects of energy on health and safety.

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V. COURSE COMPETENCIES

1. Explain the concepts of energy transformation and heat flow.
2. Describe how to convert energy for home use.
3. Identify electrical circuits and devices.
4. Describe effective building construction techniques.
5. Identify how to find air leaks.
6. Describe construction flaws and air leakage.
7. Identify air-sealing methods and materials.
8. Explain insulation usage in new construction.
9. Identify insulation types.
10. Explain how to retrofit insulation.
11. Describe window and door characteristics and components.
12. Identify window treatments and structure.
13. Define combustion heating safety and efficiency.
14. Describe heating systems used in residential buildings.
15. Identify energy efficient lighting systems.
16. Describe the types of energy efficient appliances.
17. Define the difference between heating and cooling systems.
18. Explain how the various types of cooling systems function.
19. Identify the types of energy efficient water-heating systems.
20. Explain how to increase water-heating efficiency.
21. Identify the best ways to ventilate residential buildings.
22. Explain how building materials can adversely affect health and safety.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number:	LIFE 1426
Course Title:	Renewable Energy Sources
Credit Hours:	3
Division and Discipline:	Career/Technical Education Division

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Course Description: This Course provides a comprehensive overview of renewable energies, including solar energy, wind power, hydropower, biomass, and alternative fuels. Students will be taught the principles of basic solar design, solar hot water, pool and space heating and solar cooling. Students will learn how to assess the viability of wind power, hydropower or biomass system for a given location. Students will also learn about the impact of government regulations on the use of renewable and fossil fuel energies. Students will analyze these renewable energy systems and will calculate savings factors; backup energy needs, financing options, and economic analyses.

II. CLASSROOM POLICY

Students and faculty of Barton 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, which is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom. There will be no eating in the classroom.

The college reserves the right to suspend a student for conduct, which is determined to the college's educational endeavors as outlined in the college catalog.

Plagiarism on any academic endeavors at Barton 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 the instructor and the BCCC enrollment specialist.

Student grievance procedure: Barton Community College policy is to secure, at the lowest possible level, equitable solutions to problems which may arise during the conduct of our academic programs. Student academic concerns that cannot be resolved with the course instructor should be directed to John Truitt, Executive Director Technical Education or Bill Nash, Dean Technical Education. 1-785-238-8550 or email truittj@bartonccc.edu or nashw@barton.cc.ks.us

III. COURSE AS VIEWED IN TOTAL CURRICULUM

The student will investigate the potentials of renewable energy technologies to help solve environmental and economic problems within society.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

1. Develop an understanding of current renewable energy technologies and how they interrelate with conventional fossil fuel energy production.
2. Investigate the potentials of renewable energy technologies to help solve environmental and economic problems.
3. Develop an understanding of cost savings, comparative energy output and environmental analyses of renewable energy systems.

V. COMPETENCIES

Upon completion of this course, students will be able to:

1. Classify and describe the different types of renewable energy systems.
2. Solar energy
3. Wind power
4. Hydropower
5. Renewable energy fuel cells
6. Biomass
7. Assess renewable energy systems for their:
8. Environmental impacts
9. Economic impacts
10. Explain the economics of combining energy conservation and renewable energy projects.
11. Explain the effect of government regulations, politics, and corporate development on the renewable energies industry.
12. Design and evaluate a solar, wind or hybrid system for its cost effectiveness and efficiency.
13. Identify renewable/sustainable energy technologies for residential applications.

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

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

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

Course Description**:** This course is an introduction to computer concepts in which focuses on concepts including hardware, operating systems, ethics and security; and applies hands-on interaction with software applications including word processing, spreadsheets, presentations, and database systems. On completion of this course, students will understand common computer terminology, utilize featured application software, and recognize relevant ethics and security issues associated with technology.

II. CLASSROOM POLICY

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify Student Support Services. Additional information about academic integrity can be found at the following link: http://academicintegrity.bartonccc.edu/

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course is a requirement for many of the degrees' foundational courses whether an applied science or a transferable degree. This course serves as an introduction to computer concepts for all individuals who want to use computers and software applications more effectively for both personal and professional use. The use of technology within society, business, and education increases continually and it is imperative that students, future employees, and members of society can operate a computer and relevant software efficiently. The skill set formed within this course can also assist in creating integration and adaptability skills the students may need when using other software or web applications.

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.

KRSN Course CSC 1101

The learning outcomes and competencies detailed in this syllabus meet or exceed the learning outcomes and competencies specified by the Kansas Core Outcomes Groups for this course, as sanctioned and approved by the Kansas Board of Regents. For more information regarding transfer and articulation of this course, please refer to the following KBOR webpage: http://kansasregents.org/transfer_articulation.

IV. ASSESSMENT OF STUDENT LEARNING / COURSE OUTCOMES

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

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COURSE OUTCOMES / COMPETENCIES:

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

1. Identify specifications and configurations of computer hardware
   a. Define computer hardware concepts and terminology
   b. Illustrate various configurations for hardware components
   c. Identify current and emerging hardware technologies

2. Identify the role of operating systems
   a. Utilize system software to execute a common set of applications
   b. Identify and use operating system and utility features

3. Use the Internet to find information and determine its credibility
   a. Define Internet concepts and terminology
   b. Identify and use current and emerging Internet capabilities

4. Use word-processing software to create, edit and produce professional documents
   a. Define word-processing concepts and terminology
   b. Create, modify, save and output professional looking documents

5. Create spreadsheets and charts for problem-solving
   a. Define spreadsheet concepts and terminology
   b. Create, modify, save and output professional looking documents

6. Utilize a database
   a. Define database concepts and terminology
   b. Modify, maintain, save, query and output database information

7. Use presentation software to create, edit and produce professional looking presentations
   a. Define presentation concepts and terminology
   b. Create, modify, save and output professional looking presentations

8. Identify ethical and social standards of conduct regarding the use of information and technology
   a. Define ethical and social concepts of technology use
   b. Define ethical and social standards of conduct when using technology

9. Identify security threats and solutions
   a. Define security terminology and concepts
   b. Identify protection and solutions from threats such as malware

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number**:** BSTC 1001
Course Title**:** Introduction to Computers
Credit Hours**:** 3
Prerequisites**:** None
Division/Discipline: Workforce Training and Community Education
Course Description**:** This is a computer literacy course designed to introduce students to what a computer is and how computers can be used. Topics covered include a brief historical survey of computers, components of computer hardware, applications and systems software, survey of programming languages, computer systems design and analysis, problem-solving capabilities of a computer and the impact of computer technology on society. Students will also gain experience using microcomputers and packaged software such as word processing, spreadsheets, database management, graphics and telecommunications.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

This course is designed to introduce students to the field of business technologies. The course will cover the historical background of the computer industry – highlighting the contributions of certain pioneers in hardware and software development. Besides taking a look back at the development of the computer and the effect it has had on our society, the student will also study the modern computer, its characteristics and its supporting software and hardware.

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 objectives of this course are as follows:

1. Teach the fundamentals of computers and computer nomenclature, particularly with respect to personal computer hardware and software and the World Wide Web
2. Introduce students to the historical development of the computer and the contributions certain individuals made to the field
3. Give students an in-depth understanding of why computers are essential components in business and society in general
4. Make use of the World Wide Web as a repository of the latest information and as an integrated learning tool
5. Offer alternative learning techniques with streaming audio and video on the Web
6. Recognize the personal computer's position as the backbone of the computer industry and emphasize its use as a stand-alone and networked device
7. Present strategies for purchasing, installing and maintaining a personal computer
8. Assist student in planning a career in the computer field

V. COURSE COMPETENCIES

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

1. Explain why it is important to be computer literate
2. Define the term computer
3. Identify the components of a computer
4. Explain why a computer is a powerful tool
5. Differentiate among the various categories of software
6. Explain the purpose of a network
7. Discuss the uses of the Internet and the World Wide Web
8. Describe the categories of computers and their uses
9. Define application software
10. Explain how to start a software applications

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

11. Explain the key features of widely used software applications
12. Provide examples illustrating the importance of the World Wide Web
13. Describe how to use a Web browser
14. Explain how to search for information on the Web
15. Describe the learning aids available with many software applications
16. Identify the components in the system unit and explain their functions
17. Explain how the CPU uses the four steps of a machine cycle to process data
18. Compare and contrast various microprocessors on the market today
19. Define a bit and describe how a series of bits is used to represent data
20. Differentiate between the various types of memory
21. Describe the types of expansion slots and expansion cards in the system unit
22. Explain the difference between a serial and a parallel port
23. Describe how buses contribute to a computer's processing speed
24. Describe the four types of input
25. List the characteristics of a keyboard
26. Identify various types of keyboards
27. Identify various types of pointing devices
28. Explain how a mouse works
29. Describe different mouse types
30. Explain how scanners and other reading devices work
31. Identify the purpose of a digital camera
32. Describe the various techniques used for audio and video input
33. Identify alternative input devices for physically challenged users
34. Define the four types of output
35. Identify the different types of display devices
36. Describe factors that affect the quality of a monitor
37. Understand the purpose of a video card
38. Identify monitor ergonomic issues
39. Explain the differences among various types of printers
40. List various types of audio output devices
41. Identify the purpose of data projectors, fax machines and multifunction devices
42. Explain how a terminal is both an input and output device
43. Identify output options for physically challenged users
44. Differentiate between storage and memory
45. Identify various types of storage media and storage devices
46. Explain how data is stored on a floppy disk
47. Understand how to care for a floppy disk
48. Describe how a hard disk organizes data
49. List the advantages of using disks
50. Explain how data is stored on compact discs
51. Understand how to care for a compact disc
52. Differentiate between CD-ROMs and DVD-ROMs
53. Describe how the Internet works

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

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54. Recognize how graphics, animation, audio, video, and virtual reality are used on the World Wide Web
55. Identify the tools required for Web publishing
56. Describe the uses of electronic commerce (e-commerce)
57. Explain how e-mail, FTP, Telnet, newsgroups, mailing lists and chat rooms work
58. Identify the rules of netiquette
59. Understand security precautions for the Internet
60. Explain how network computers are used
61. Identify the various types of system software
62. Differentiate between an operating system and utility program
63. Describe the features of operating systems
64. Describe the functions of an operating system
65. Identify and briefly describe popular operating systems used today
66. Explain the startup process for a personal computer
67. Discuss the purpose of the following utilities: viewer, file compression, diagnostic, disk scanner, defragmenter, uninstaller, backup, antivirus and screen saver
68. Define the components required for successful communications
69. Explain the purpose of communications software
70. Describe commonly used communications devices
71. Explain the difference between a local area network and a wide area network
72. Understand the various communications protocols
73. Identify uses of intranets and extranets
74. Explain why data and information are important to an organizations
75. Identify data maintenance techniques
76. Differentiate between file processing and databases
77. Discuss the responsibilities of the data and database administrators
78. Differentiate between packaged software and custom software
79. Identify programming languages commonly used today
80. Define multimedia
81. Describe types of media used in multimedia applications
82. List and describe the various uses of multimedia applications
83. Identify the various types of security risks that can threaten computers
84. Describe ways to safeguard a computer
85. Describe how a computer virus works and the steps individuals can take to prevent viruses
86. Explain why computer backup is important and how it is accomplished
87. Discuss the steps in a disaster recovery plan
88. Discuss ethical issues with respect to the information age
89. Identify and explain Internet-related security and privacy issues

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: BSTC 1023
Course Title: Database Management Systems
Credit Hours: 3
Prerequisites: 1036 - Microcomputer Applications I
Division/Discipline: Workforce Training and Community Education/Business Technology
Course Description: Provides theory, information and training in the concepts of database management systems using microcomputer database software to apply and validate these concepts. Database design methodology is discussed. A microcomputer DBMS is used to create a database and generate solutions to implement a business application. Students create tables, input forms, subforms, switchboard forms, filters, select and action queries, reports and subreports, and macros. Text and spreadsheet data is imported into the database, and database objects are shared with and exported to other programs. Concepts on how to distribute data using a private internal intranet or the public Internet are explored. Database security issues are examined.

II. CLASSROOM POLICY

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

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

This course is designed to provide in-depth training for database management systems. Hands-on experience with database software is provided; students will be able to apply the concepts to any database system, regardless of the software used. Understanding database technology will be invaluable to any student who uses computers in their home, job, or profession.

Please see 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. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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. Understand database system concepts and terminology
2. Be able to design a database system
3. Use the features of the database environment to complete business applications
4. Be able to tailor software to a user's specific needs
5. Generate standard and customized reports

V. COURSE COMPETENCIES

Upon completion of this course, the student will be proficient in:

1. Use of basic computer terminology and functions
2. Create and design database tables and forms
3. Modify tables and forms as needed
4. Enter data into the database using tables and forms
5. Describe and create table relationships
6. Search a database using find, replace, filters, and select and action queries
7. Import text and spreadsheet data, and export database objects
8. Describe and illustrate the steps necessary to design and create custom reports
9. Create macros, switchboard forms, menu bars, toolbars and tooltips
10. Describe database security concepts and explain several security methods that can be utilized to provide a more secure database

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

VIII. REFERENCES

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: BSTC 1685
Course Title: Spreadsheet Applications
Credit Hours: 3
Division and Discipline: Business Technologies
Prerequisites: BSTC 1036 Computer Concepts & Applications
Course Description: A course emphasizing the use of spreadsheet applications software to solve business problems such as budgeting, accounting, forecasting, and scheduling. Included will be applications using formulas, editing, copying, sorting, recalculating, designing and using templates, generating graphs, and macros features. Planning techniques and potential uses of spreadsheets in business and industry will be discussed.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course is designed to provide additional training in business analysis conducted via the use of personal computers and analytical software. It will help the student for the business world, armed with the required business tools to become more marketable and be in immediate asset to any business organization. Spreadsheet Applications is a fundamental course that is acceptable as general education towards any degree. This course is not intended for 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. It is the student's responsibility to obtain relevant information from intended transfer

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

institutions to insure that the courses the student enrolls in are the most appropriate set of courses for the transfer program.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

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1. Understand the fundamental features of a spreadsheet application.
2. Prepare to take the Proficient level Microsoft Office User Specialist Exam for Excel
3. Foster an appreciation of worksheets as a useful tool in the workplace.
4. Understand worksheet design, charting, what-if analysis Web queries, adding hyperlinks to a worksheet saving worksheets as HTML files, worksheet database creation and manipulation, and object linking and embedding (OLE).

V. COURSE COMPETENCIES

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

1. Start Excel, open, create, save, and print an Excel workbook and quit Excel.
2. Identify and select a range of cells and copy, move, delete, format or edit them.
3. Identify parts of a worksheet and be able to define terminology associated with an Excel worksheet.
4. Determine which chart type should be created and create and format a 3-D column or pie chart using the Chart Wizard.
5. Use the Auto Calculate area to determine totals.
6. Use Office Assistant and other online Help tools to answer your questions.
7. Enter the correct formula or function to to use in a cell and be able to modify and existing function or formula.
8. Recognize order of operations used in formulas and be able to adjust formulas as necessary.
9. Be able to assign names to cells in a worksheet.
10. Check the spelling of a worksheet and correct errors on a worksheet.
11. Use a Web query to get real-time data from a Web site.
12. Freeze column and row titles and insert and delete cells.
13. Use the IF function to enter one value or another in a cell on the basis of a logical test.
14. Use absolute and relative cell references.
15. Use Excel to answer what-if questions and Goal Seek to analyze worksheet data
16. Create and use a template by copying data between worksheets in a workbook.
17. Drill an entry through worksheets and format ranges across multiple.
18. Create formulas that use 3-D references and summarize data using consolidation.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

19. Add comments to cells, add a header or footer to a workbook, add a hyperlink and change margins.
20. Create a Web page from worksheet data.
21. Protect and unprotect cells.
22. Create and use a worksheet database.

VI. INSTRUCTOR EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN COURSE
VIII. REFERENCES
IX. METHODS OF EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. COURSE INFORMATION

Course Number: BSTC1698
Course Title: Information Processing Systems Management
Credit Hours: 3
Prerequisite: BSTC1696 Word Processing Applications or consent of instructor
Division and Discipline: Technical Education - Business Technology
Course Description: A course for those who are word processing supervisors or aspire to supervisory or management positions. The emphasis is on office technology, systems organization (including integration of WP/DP, electronic mail, communications, and records management), personnel management, controls and measurement of word processing operations and production controls.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

This course is needed to provide an opportunity to integrate the skills learned in the applications classes with the concepts of the administrative procedures necessary to implement or supervise.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

At the end of the course, the student will have

1. Determined the skills required to employ new technologies within offices.
2. Conducted a feasibility study and summarized data.
3. Developed the supplementary materials necessary to present a case for the need for word processing.
4. Developed a strategy for presenting the study findings and materials to management.
5. Developed a strategy and plan for preparations prior to implementing word processing.

The supplementary materials would include:

1. An implementation schedule
2. The system design
3. Personnel alignments and staffing plans
4. Job descriptions
5. Budget and facilities requirements
6. Procedures manuals (at least in outline format)
7. Orientation and training program plans.
8. Developed a plan for implementing word processing including materials to be used during training personnel and for directing daily operations and managing the system.
9. Developed measurement and control procedures
10. Developed system evaluation procedures.

V. COMPETENCIES
VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Course Number: HZMT 1903
Course Title: Environmental Management
Prerequisites: None
Credit Hours: 3 credit hours
Course Description: Environmental Management provides an overview of the impact of industrial operations on the environment, government regulations controlling industrial activities, and cost-effective business strategies that meet environmental guidelines. ISO standards are introduced as guidelines for businesses engaged in production activities.

II. CLASSROOM POLICY

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All students are required to produce their own work unless the activity has been designated a collaborative activity by the instructor. Any student(s) found to be guilty of dishonest course work risk losing credit for that particular activity.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Environmental Management is a required course for the Hazardous Materials certificate. This course combines material from hazardous materials handling, toxicology, and environmental chemistry in order to create environmentally safe management strategies that are cost-effective for businesses.

IV.ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton Community College is committed to quality education and to the assessment of student learning. Assessment provides a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. The ongoing process of assessment reflects that Barton is fulfilling the promises of our mission and identifies us as a learning college.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Students should complete this course with an understanding of the impact that environmental concerns have on the business community and how to formulate corporate responses to deal with problems. Collective tasks the student should be able to perform are: 1) discuss the role of society in the preservation of the environment, 2) describe the history of legislative acts passed to control the impact of business operations on the environment, and 3) propose business management strategies that integrate ISO standards into the framework of business operations.

V. COMPETENCIES

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

1. Describe the development of environmental concerns
2. Describe the concepts and principles of ecology
3. Define the scope of corporate environmental responsibility
4. Define the scope of government environmental responsibility
5. Discuss current directions in environmental ethics
6. Discuss the history of the environmental policy-making process
7. Assess the impact of special interest groups on public policy
8. Describe the nature of air pollution and its impact on the environment
9. Describe the nature of water pollution and its impact on the environment
10. Describe the impact of waste disposal on the environment
11. Describe the impact of deforestation and species decimation on the environment
12. Describe the impact of coastal erosion and wetlands destruction on the environment
13. Describe management theory and the environment
14. Describe management practices and the environment
15. Create an ISO 14001 certification plan

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT
VIII. SUPPLEMENTAL REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1934
Course Title: ISO 14000 Environmental Management

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

Credit Hours: 3 credit hours
Division and Discipline: Technical Educational
Course Description: This course will concentrate on general environmental management systems and tools, which comprise the scope of ISO 14000, the voluntary international standard for environmental management systems. Students will explore specific requirements for environmental management systems, to enable an organization to formulate a policies and objectives, which minimize the impact of its operation on the environment. Examples of environmental management systems that will be reviewed include policies, organizational systems, management, planning, operational procedures, effect and regulatory identification procedures, objectives, targets, vendor controls, auditing, record keeping and many others. Students will be given practical exercises requiring application and critical thinking to add structure and perspective to their learning process.

II. CLASSROOM POLICY

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Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify the instructor.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Course provides a systematic overview of the ISO 14000 standards and requirements for an environmental management system, which enables an organization to formulate policies and objectives, which minimize the impact of its operation on the environment.

IV. OBJECTIVES

To introduce students to ISO 14000 and explore those environmental aspects, which an organization can control and over which it can be expected to have an influence. Further, to review and analyze specific requirements necessary for an organization to achieve ISO 14000 certification through minimization of its environmental impact.

V. COMPETENCIES

The course is designed to enable students to:

1. Describe the overall objectives of ISO 14000.

2. List and explain the types of memberships available in ISO.
3. Identify and explain the basic clauses of ISO 14000.
4. List and explain the five documents that comprise ISO 14000.
5. Distinguish between conformance and compliance as they relate to ISO 14000.
6. Distinguish between environmental aspect and environmental impact.
7. Explain the relationship between ISO 14000 and national legislative and regulatory agencies.
8. Define EMS.
9. List and explain the five concerns that should be considered in an environmental policy.
10. Explain the concept of continuous improvement as it relates to ISO 14000.
11. Differentiate between an objective and a target.
12. List the six elements that should be part of and organization's environmental plan.
13. Identify the four key areas an organization should review in order to establish its current environmental position.
14. Explain how an organization should determine training needs relating to ISO 14000.
15. Define the contents of a good training documentation package.
16. List and explain the four levels of documentation for ISO 14000.
17. Explain each major component in the EMS model.
18. Explain the two levels used to verify the integrity of the EMS.
19. List the six areas of concern for an organization's audit program.
20. List the elements of an audit report.
21. Explain the main elements of an EMS review.
22. Define the steps that lead to an organization's continual improvement.
23. Explain and illustrate by example, the typical structure of an ISO documentation system.
24. Explain the differences between certification/registration and self-declaration.
25. List the various steps in the registration process.
26. Define the concept of EMS audit.
27. Describe the corrective action process.
28. Explain and summarize the fifteen steps to ISO 14000 registration.
29. Distinguish between ISO 9000 and ISO 14000.
30. Explain ISO 9000.
31. Explain the integrity issue as it relates to ISO registration.

VI. INSTRUCTOR EXPECTION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1912
Course Title: Industrial Hygiene and Toxicology
Credit Hours: 1-3
Division and Discipline: Environmental Technology
Course Description: A review of the research done in determining the systematic health effects of exposures to chemicals. Determination of risk factors, routes of entry, control measures, and acute and chronic effects are discussed.

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.

Academic dishonesty on any academic endeavor at Barton Community College will not be tolerated.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify the college of any special requirements prior to enrollment.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Industrial Hygiene and Toxicology is a required course for the Hazardous Materials Certification program and the Hazardous Materials Management Program. The material provided in this course is used during Environmental Management, Industrial Processes, and Chemical Spills and Release Response courses to develop safe and effective policies regarding the use, storage, and disposal of hazardous materials.
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. It is the students responsibility to obtain relevant information from intended transfer institutions to insure that the course the student enrolls in are the most appropriate set of courses for the transfer program..

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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,

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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.

1. Introduction to Environmental Toxicology
2. Toxicology Concepts
3. Dose-Response Relationships
4. Absorption of Toxicants
5. Distribution and Storage of Toxicants
6. Biotransformation and Elimination of Toxicants
7. Target Organ Toxicity
8. Teratogenesis, Mutagenesis, and Carcinogenesis
9. Environmental Toxicants
10. Risk Assessment
11. Occupational Toxicology
12. Pollution and Pollution Control

V. COURSE COMPETENCIES

1. Introduction to Environmental Toxicology
   a. Define environmental toxicology
   b. Describe the history of toxicology
   c. Distinguish descriptive, mechanistic, and regulatory disciplines of toxicology
   d. Recognize the multidisciplinary approaches to environmental toxicology
   e. Summarize the relevance of environmental toxicology to the human species
2. Toxicology Concepts
   a. Define toxicity
   b. Discuss the different types of toxicity
   c. Describe toxicokinetics and toxicodynamics
   d. Explain how toxicants are classified
   e. Outline the steps involved in toxicity testing
3. Dose-Response Relationships
   a. Explain the difference between causal and associative relationships
   b. Discuss the role of epidemiology in establishing associative relationships
   c. Describe the relationship between dose and response
   d. Interpret frequency and cumulative dose-response curves
   e. Recognize sub-threshold, threshold, and ceiling effect doses
   f. Summarize effective, toxic, and lethal doses
   g. Define potency, efficacy, mixed or reversed toxicity, and margin of safet
4. Absorption of Toxicants
   a. Describe the ways in which toxicants interact with cells
   b. Recognize how the molecular characteristics of toxicants affect entrance into a cell
   c. Explain human anatomy as related to integumentary, respiratory, and digestive systems
   d. Summarize integumentary, respiratory, and digestive routes of toxicant absorption
5. Distribution and Storage of Toxicants

a. Identify the ways toxicants are distributed in the body
b. Recognize the relationship between a specific route of absorption and the related pathways for distribution of a toxicant
c. Describe the factors affecting distribution of toxicants to tissues
d. Define volume of distribution
e. List the sites for toxicant storage
f. Discuss how storage influences the half-life of a toxicant

6. Biotransformation and Elimination of Toxicants
a. Explain the role of biotransformation in toxicokinetics
b. Describe how biotransformation facilitates the elimination of toxicants or their metabolites from the body
c. Distinguish between phase I and phase II biotransformation reactions
d. Define bioactivation or toxication
e. Identify the tissues responsible for biotransformation reactions
f. List the factors affecting biotransformation in humans
g. Summarize the role of elimination in toxicokinetics
h. Describe processes occurring in the kidney, liver, and lung as related to the elimination of toxicants

7. Target Organ Toxicity
a. Define target organ toxicity
b. Explain the basis for the specificity of organ toxicity
c. Contrast the toxicity mechanisms for various types of toxicity
d. Describe examples of target organ toxicity
e. Discuss the characteristics evaluative procedures for determining toxicity in target organs

8. Teratogenesis, Mutagenesis, and Carcinogenesis
a. Define teratogenesis, mutagenesis, and carcinogenesis
b. Describe the relevance of replication, transcription, and translation to teratogenesis, mutagenesis, and carcinogenesis
c. Summarize the mechanism of action for teratogens, mutagens, and carcinogens
d. Discuss examples of known teratogens, mutagens, and carcinoge

9. Environmental Toxicants
a. Define environmental toxicants
b. Recognize the contribution of environmental toxicants to worldwide morbidity and mortality
c. Discuss representative categories of environmental toxicants, including examples
d. Describe the mechanisms of toxicity within categories of environmental toxicants

10. Risk Assessment
a. Define risk and safety
b. Describe the use of the terms probability and incidence as related to risk
c. Identify factors that contribute to differences in risk perception
d. List the processes of risk assessment
e. Summarize the parameters needed to estimate risk
f. Recognize the importance of risk management
g. Discuss the Safe Human Dose Formula

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

h. Explain the contributions of environmental toxicology to the survival of all organisms

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1940
Course Title: Introduction Ergonomics
Credit Hours: 3 credit hours
Division and Discipline: Technical Education Division/Hazardous Materials Management/Environmental option
Course Description: This course provides the student the fundamental knowledge about human structure, behavior, and common work practices. Knowledge gained in class will enable the student to evaluate work systems and recommend changes that will reduce work related musculoskeletal disorders (MSD) and other workplace ergonomics related injuries.

II. CLASSROOM POLICY

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All students are required to produce their own work unless the activity has been designated a collaborative activity by the instructor. Any student(s) found to be guilty of dishonest course work risk losing credit for that particular activity.

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

Plagiarism on any academic endeavors at Barton 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 the instructor and the BCCC Director of Student Support Services.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Introduction to ergonomics is a required course for the Certificate in Environmental Health & Safety and the AAS degree. This course provides students with an overview of how ergonomics affects workers and management decisions. The skills obtained in this class combined with other required classes in the program provide the student with broad knowledge of the health and safety field.

IV. OBJECTIVES

After completion of this course students should be able to comprehend the following:
Modern Work Systems , Task and Human-Machine Interaction Analysis, Basic Body Mechanics, Principles in Workspace and Equipment Design , Cognitive Ergonomics, as well as develop a ergonomics program for a workplace.

V. COMPETENCIES

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

1. Identify jobs, tasks, cycles and elements that are prone to CTD or MSD.
2. Identify the key body components that are prone to soft tissue injury.
3. Identify risk factors associated with CTD's or MSD's.
4. Conduct an introductory job analysis.
5. Identify job hazards based on job analysis.
6. Identify exposure to temperature hazards when reviewing job and daily living tasks.
7. List methods for reducing exposure to heat and cold sources in a working environment.
8. Define and explain force.
9. List grip factors that affect hand exertion
10. List lifting factors that affect whole body exertion.
11. List corrective actions to reduce force exertion on the hand, arm and whole body.
12. Define localized pressure and its potential negative impact on the body.
13. List common examples of localized pressure that occur in the work environment.
14. List the three methods of reducing localized pressure.
15. List three elements of repetition.
16. Identify symptoms that indicate that an excessive repetition is taking place.
17. Define how repetition is measured.
18. List three methods to correct excessive repetition.
19. Provide work area organization alternatives to minimize awkward postures of multi-task job.

VI. INSTRUCTOR EXPECTATION OF STUDENTS
VII. TEXT
VIII. SUPPLEMENTAL REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1950
Course Title: Characteristics of Hazardous Materials
Credit Hours: 3 Credit Hours
Prerequisites: None
Division and Discipline: Career and Technical Education/Hazardous Materials Management
Course Description: This course focuses on the basic concepts needed by first responders, emergency operations personnel, industry, and law enforcement to evaluate the potential hazards and behaviors of materials considered hazardous. It examines the reasons for the chemical behavior of hazardous materials and is designed to improve decision-making in safety operations, handling, entrance protection, mitigation, and decontamination procedures. Units of the course include the Periodic Table, chemical and physical aspects of chemical compounds and how these properties affect emergency incidents, salts, non-salts, the hydrocarbon family, hydrocarbon derivatives, and physical process of combustion.

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

For specific College policies and notices concerning: Non-discrimination, Civil Rights Act of 1964, Family Educational Rights and Privacy Act (FERPA), Sexual Harassment, Academic Clemency Policy and Academic Suspension, visit the Barton County Community College, Ft. Riley website at http:fr.barton.cc.fr.us/.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course introduces the student to the chemical characteristics, physical characteristics, hazards, and combustion characteristics of the most commonly encountered hazardous materials. The course provides the student with an understanding of how hazardous materials can influence response operations as well as incident scene management.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

1. Demonstrate an understanding of the periodic table and the most frequently used chemical symbols.
2. Explain the concept of the bonding process and how elements combine to form chemical compounds.
3. Identify and explain the differences in bond types
4. Analyze formulas for hydrocarbons and other organic compounds to determine characteristics.
5. Describe the basic characteristics of combustion.
6. Explain the physical properties of flammable and combustible liquids.
7. Describe the basic characteristics and hazards of compressed gases.
8. Describe the basic characteristics and hazards of combustible solids.
9. Describe the basic characteristics and hazards of Oxidizing agents.
10. Describe the basic characteristics and hazards of corrosive materials.
11. Describe the basic characteristics of polymers.
12. Describe the basic characteristics and types of ionizing radiation.
13. Describe the basic characteristics of water and air reactive materials.
14. Describe the basic characteristics of toxic materials.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

V. COURSE COMPETENCIES

1. Demonstrate an understanding of the periodic table and the most frequently used chemical symbols.
    a. Use the periodic table to identify symbols, names of elements, and atomic numbers.
    b. Determine the logical systematic order of elements in the periodic table.
    c. Explain the octet rule.
    d. Determine atomic weight of the proton and neutron.
    e. Explain the "family effect."

2. Explain the concept of the bonding process and how elements combine to form chemical compounds.
    a. Explain ionic bonding (salts).
    b. Explain cations and anions.
    c. Explain valence.
    d. Use formulas to balance compounds from salts.
    e. Identify characteristics of oxyions.

3. Identify and explain the differences in bond types.
    a. Explain covalent bonding.
    b. Distinguish between covalent and ionic bonding.
    c. Distinguish a multiple bond within a compound by illustrating its structure correctly.
    d. Apply the dash method correctly by using illustrations, which depict the structure of compounds.
    e. Identify types of multiple bonds and their characteristics.

4. Analyze formulas for hydrocarbons and other organic compounds to determine characteristics.
    a. Identify hydrocarbons and other organic compounds, and deduce the chemical characteristics that determine their hazardous properties.
    b. Distinguish between alkanes, alkenes, and alkynes.
    c. Use formulas to identify the organic family to which a particular compound belongs.
    d. Use formulas to identify saturated, unsaturated, or aromatic type bonds.
    e. Determine whether a given compound has a straight, branched, or cyclic in shape.
    f. Explain isomers and the branching "effect."
    g. Identify general formulas and characteristics of alcohols, ethers, peroxides, ketones, aldehydes, esters, and amines.
    h. Identify a benzene ring, some of its' common derivatives and their hazardous properties.

5. Describe the basic characteristics of combustion.
    a. Describe the fire triangle and the tetrahedron of fire.
    b. Describe and distinguish between the different types of oxidation.
    c. Define heat input/output
    d. Explain exothermic and endothermic.

e. Explain the life cycle of fire and the theories of extinguishments.

6. Explain the physical properties and hazardous of flammable and combustible liquids. .
   a. Identify and define the types of flammable liquids and their hazards.
   b. Explain the relationship between boiling point and vapor pressure.
   c. Define flashpoint, flammable range, ignition temperature, specific gravity, vapor density, and vapor pressure.
   d. Determine the amount of vapor pressure produced by various liquids.
   e. Determine relative ignition temperatures and ignition characteristics from chemical composition of various flammable liquids.
   f. Characterize sustained combustion of flammable liquids based on flash point, ignition temperature, flammable range, and chemical composition.

7. Describe the basic characteristics and hazards of compressed gases.
   a. Identify common flammable compressed gases and their hazards.
   b. Identify common nonflammable compressed gases and their hazards.
   c. Explain the two forms of compressed gases.
   d. Define critical temperature and pressure.
   e. List the seven hazards of compressed gases.
   f. Explain BLEVE.

8. Describe the basic characteristics and hazards of combustible solids.
   a. Explain the six allotropes of carbon.
   b. Determine the combustibility of wood and wood products.
   c. Identify the largest group of elements that burn.
   d. Explain how metals burn.
   e. Define the hazards of combustible solids.

9. Describe the basic characteristics and hazards of Oxidizing agents.
   a. Identify and distinguish the two classes of oxidizing agents.
   b. Define hydroscopic and oxyion.
   c. Determine the most common oxidizers.
   d. Define the hazards of oxidizing agents.

10. Describe the basic characteristics and hazards of corrosive materials.
    a. Apply the ph scale of measurement
    b. List two types of decontamination.
    c. Define concentration and strength of acids and bases.
    d. Define the hazards of corrosive materials.

11. Describe the basic characteristics of polymers.
    a. Identify components of polymers.
    b. Identify types of substances that may polymerize.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

c. Define the hazards of polymers.

12. Describe the basic characteristics and types of ionizing radiation.
    a. Identify the four types of radiation particles.
    b. Explain the difference between exposure and contamination in relation to a radioactive incident.
    c. Explain the types of radioactive incident protective measures.
    d. Define the hazards of radiation.

13. Describe the basic characteristics water and air reactive materials.
    a. Define water-reactive material.
    b. Define the differences between the water-reactive hazards of the alkali metals and the alkaline earth metals.
    c. Define hydrides, carbides, nitrides, azides, and phosphides.
    d. Identify eleven inorganic water-reactive chlorides and associated hazards.
    e. Define the hazards of water and air reactive materials.

14. Describe the basic hazards and characteristics of toxic materials.
    a. Define the hazards of toxic materials.
    b. List routes of entry for toxic materials
    c. Explain the common methods of measurement used to determine level of exposure.
    d. List the classifications of toxic materials.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND SUPPLEMENT MATEIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1917
Course Title: Department of Transportation (DOT) Regulations
Credit Hours: 3
Division and Discipline: Technical Education Division

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Course Description: This course provides a detailed study of the U.S. Department of Transportation (DOT) regulations. Topics include identifying regulated materials, prepare shipping papers, inspection of packaging and label determination. Emphasis will be placed on interpretation of regulations used in the transportation and storage of hazardous materials.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course serves as an introduction to the Department of Transportation's regulations that govern the transporting and storage of regulated hazardous materials.

IV. OBJECTIVE

This course provides the students the opportunity to gain knowledge in recognizing, preparing, handling and communicating the hazards of the chemical materials that are transported by air, rail, water or highway.

V. COMPETENCIES

The course is designed to enable students to:

1. Use 49 CFR, especially the Hazardous Materials Table to determine if and how a material is regulated.
2. Select the packaging, labeling, and placarding for hazardous materials.
3. Determine the shipping requirements for various hazardous materials.
4. Determine reporting procedures, including filling out DOT's Incident Report Form for a hazardous materials accident.
5. Determine segregation and compatibility of hazardous materials.
6. Determine emergency response and technical assistance information using the Emergency response Guide.
7. Recognize the safety considerations for transporting radioactive materials packages.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1907
Course Title: Resource Conservation and Recovery Act (RCRA)
Credit Hours: 3
Prerequisites: None
Division and Discipline: Environmental Technology
Course Description: This course provides an introduction to the Resource Conservation and Recovery Act (RCRA) with an emphasis on federal rulemaking, regulatory framework, and hazardous waste management. Topics include the Federal Register, Code of Federal Regulations, hazardous waste characterization, generator classifications, transporter responsibilities, treatment and disposal facilities, universal waste, standard and innovative remediation technologies, and contingency planning. Students will also explore and discuss related laws impacting hazardous waste management such as the Comprehensive Environmental Response and Liability Act (CERCLA) and the Emergency Planning and Community Right to know Act (EPCRA).

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Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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 course is a structured learning experience designed for the student who is currently employed in or planning to enter the Environmental Health and Safety field or other related occupation. It is a required course for the Hazardous Materials Management Degree program. Course completion will provide the student with a basic understanding of the management of hazardous waste through a focused study of laws and regulations specifically addressing industry compliance issues.

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

V. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

This course is intended to:

1. Develop an understanding of the Federal regulatory rulemaking process and its application in addressing hazardous waste problems.
2. Develop the ability to analyze and interpret the Code of Federal Regulations involving the management of hazardous waste in various industry situations.
3. Develop an understanding of the application and principles of hazardous waste identification and determination.
4. Develop an understanding of the applicability, compliance requirements, and impact of hazardous waste legislation and related laws on affected business and industry.
5. Develop an understanding of the hazardous waste permitting process and requirements for Treatment Storage and Disposal facilities.
6. Relate the RCRA concept of "cradle to grave management" to the components of similar environmental laws and regulations.
7. Develop and understanding of hazardous waste remediation technologies and resource conservation trends.

V. COURSE COMPETENCIES

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Upon completion of this course students should be able to:

1. Explain the primary purpose of RCRA and the types of waste regulated by RCRA.
2. Define and discuss the RCRA principle of "cradle to grave" management.
3. Using Title 40 of the Code of Federal Regulations, determine and interpret the requirements for identifying, storing, transporting, and disposing of hazardous waste.
4. Using the Federal Register, identify and discuss selected final rules, proposed rules, and notices applicable to hazardous waste management.
5. Define and distinguish solid waste, hazardous waste, non-hazardous waste, hazardous substance, and extremely hazardous substances.
6. Determine and explain all conditions and procedures required to properly classify a material as a hazardous waste.
7. Define and discuss the federal hazardous waste generator classification system and various selected state programs.
8. Given hypothetical data, interpret, explain, and complete hazardous waste regulatory compliance documents.
9. Properly conduct a hazardous waste determination.
10. Define and distinguish the hazardous waste management requirements of generators, transporters, and treatment, storage, and disposal facilities.
11. Interpret and discuss the Land Ban Regulations.
12. Determine and interpret applicable regulations for the permitting of treatment, storage, and disposal facilities.
13. Define and explain compliance and imminent hazard orders, corrective action orders, monitoring and analysis orders, and associated penalties for each.
14. Research and discuss selected hazardous waste disposal and remediation technologies.
15. Explain the purpose of the National Contingency Plan (NCP).
16. Define the goals of CERLA and SARA and distinguish them from RCRA.
17. Explain the regulatory requirements for managing underground storage tanks.

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
I. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: HZMT 1919
Course Title: Hazardous Waste Operations & Emergency Response

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

Credit Hours: 3
Division and Discipline: Environmental Technology
Course Description: This course provides students with an overview of the requirements of 29 CFR 1910.120 for occupational health and safety workers who respond to hazardous waste and chemical spills. Topics include toxicology, chemical awareness, monitoring, personal protective equipment, safety, confined space entry, incident command, site control, medical surveillance, decontamination, safe work practices and emergency procedures.

II. CLASSROOM POLICY

Students and faculty of Barton 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, which is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom. There will be no eating in 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.

Academic dishonesty on any academic endeavor at Barton Community College will not be tolerated.

Anyone seeking an accommodation under provisions of the Americans with Disabilities Act should notify the college of any special requirements prior to enrollment.

III. COURSE AS VIEWED IN TOTAL CURRICULUM

Provides students with the necessary knowledge and skills to identify and interpret compliance requirements of 29 CFR 1910.120. This course also meets all requirements of the OSHA HAZWOPER 40-hour certification.

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

Upon completion of this course, the student will be able to identify, interpret, and apply safety measures during a chemical spill or chemical incident.

V. COURSE COMPETENCIES

The course is designed to enable students to:

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

1. Identify resources for information on OSHA standards, EPA, Hazardous Waste Legislation and Safety and Health programs
2. Read and interpret OSHA and EPA regulations as they apply to a hazardous materials release or spill.
3. Perform hazardous waste site analysis
4. Identify and evaluate various types of hazards using site characterization
5. Select and use personal protective clothing
6. Select decon site
7. Setup and operate a decon site
8. Identify the principles of toxicology and describe how they relate to various types of chemical exposures
9. Cite toxicology dose responses, exposure limits, categories of toxic chemical and biological response to chemical exposure
10. Identify labels used in both the DOT and NFPA systems
11. Identify the symptoms and effects of cold and heat injuries during a emergency response incident
12. Identify risks associated with blood borne pathogens and protective measures used
13. Identify potential health hazards of radioactive sources
14. Select and don respiratory equipment to include SCBA
15. Cite the hazards and equipment requirements of confined space entry
16. Monitor air quality at contamination site
17. Document procedures for cite control
18. Interview and record
19. Demonstrate sampling materials for various materials.
20. Identify safe work practices including walking and working surfaces, overhead and underground utilities, tools and heavy equipment, energy sources, lockout-tagout, drum and container handling and transportation of hazardous materials.
21. Demonstrate through an emergency response exercise the formation of teams, briefing procedures, the implementation of a response plan, the evaluation of the performance and the inspection of equipment.

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
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X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

i. GENERAL COURSE INFORMATION

Course Number: HZMT 1907

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

Course Title: Resource Conservation and Recovery Act (RCRA)
Credit Hours: 3
Prerequisites: None
Division and Discipline: Environmental Technology
Course Description: This course provides an introduction to the Resource Conservation and Recovery Act (RCRA) with an emphasis on federal rulemaking, regulatory framework, and hazardous waste management. Topics include the Federal Register, Code of Federal Regulations, hazardous waste characterization, generator classifications, transporter responsibilities, treatment and disposal facilities, universal waste, standard and innovative remediation technologies, and contingency planning. Students will also explore and discuss related laws impacting hazardous waste management such as the Comprehensive Environmental Response and Liability Act (CERCLA) and the Emergency Planning and Community Right to know Act (EPCRA).

II. II. CLASSROOM POLICY

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III. III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course is a structured learning experience designed for the student who is currently employed in or planning to enter the Environmental Health and Safety field or other related occupation. It is a required course for the Hazardous Materials Management Degree program. Course completion will provide the student with a basic understanding of the management of hazardous waste through a focused study of laws and regulations specifically addressing industry compliance issues.

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

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

This course is intended to:

1. Develop an understanding of the Federal regulatory rulemaking process and its application in addressing hazardous waste problems.
2. Develop the ability to analyze and interpret the Code of Federal Regulations involving the management of hazardous waste in various industry situations.
3. Develop an understanding of the application and principles of hazardous waste identification and determination.
4. Develop an understanding of the applicability, compliance requirements, and impact of hazardous waste legislation and related laws on affected business and industry.
5. Develop an understanding of the hazardous waste permitting process and requirements for Treatment Storage and Disposal facilities.
6. Relate the RCRA concept of "cradle to grave management" to the components of similar environmental laws and regulations.
7. Develop and understanding of hazardous waste remediation technologies and resource conservation trends.

a. V. COURSE COMPETENCIES

Upon completion of this course students should be able to:

1. Explain the primary purpose of RCRA and the types of waste regulated by RCRA.
2. Define and discuss the RCRA principle of "cradle to grave" management.
3. Using Title 40 of the Code of Federal Regulations, determine and interpret the requirements for identifying, storing, transporting, and disposing of hazardous waste.
4. Using the Federal Register, identify and discuss selected final rules, proposed rules, and notices applicable to hazardous waste management.
5. Define and distinguish solid waste, hazardous waste, non-hazardous waste, hazardous substance, and extremely hazardous substances.
6. Determine and explain all conditions and procedures required to properly classify a material as a hazardous waste.
7. Define and discuss the federal hazardous waste generator classification system and various selected state programs.
8. Given hypothetical data, interpret, explain, and complete hazardous waste regulatory compliance documents.
9. Properly conduct a hazardous waste determination.

10. Define and distinguish the hazardous waste management requirements of generators, transporters, and treatment, storage, and disposal facilities.
11. Interpret and discuss the Land Ban Regulations.
12. Determine and interpret applicable regulations for the permitting of treatment, storage, and disposal facilities.
13. Define and explain compliance and imminent hazard orders, corrective action orders, monitoring and analysis orders, and associated penalties for each.
14. Research and discuss selected hazardous waste disposal and remediation technologies.
15. Explain the purpose of the National Contingency Plan (NCP).
16. Define the goals of CERLA and SARA and distinguish them from RCRA.
17. Explain the regulatory requirements for managing underground storage tanks.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
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IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

i. GENERAL COURSE INFORMATION

Course Number: HZMT 1909
Course Title: Clean Air & Water Quality Regulations
Credit Hours: 3
Prerequisites: None
Division and Discipline: Environmental Technology
Course Description: This course provides a study of the laws and regulations associated with the protection of air and water. Topics and activities include the Clean Air Act Amendments (CAAA), Clean Water Act (CWA), air pollution control technologies, National Pollutant Discharge Elimination System (NPDES), and interpreting standards promulgated in the Code of Federal Regulations.

II. CLASSROOM POLICY

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Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course is a structured learning experience designed for the student who is currently employed in or planning to enter the Environmental Health and Safety field or other related occupation. It is a required course for the Hazardous Materials Management Degree program. Course completion will provide the student with a basic understanding of the Clean Air and Clean Water laws, regulations, and their associated compliance issues.

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

IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton 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.

This course is intended to:

1. Develop the ability to analyze and interpret the Code of Federal Regulations as related to compliance with the Clean Water and Clean Air Acts.
2. Develop an understanding of the 1990 Clean Air Amendments and its impact on affected business and industry.
3. Develop an understanding of the Clean Water Act and its impact on affected business and industry.
4. Develop an understanding of the requirements of 40 Code of Federal Regulation Operating Permitting program.
5. Develop an understanding of air emissions control and water quality technologies.

V. COMPETENCIES

Upon completion of this course students should be able to:

1. Identify, interpret, and practice application of the environmental regulations concerning air emissions and wastewater discharged by industrial facilities.
2. Describe the NAAQS criteria pollutants specifically regulated by CAAA.
3. Describe the CAAA Title IV allowance system.
4. Given a description of a source as well as the type and quantity of the source's emissions, determine if that source is regulated under CAAA Title III.
5. Identify 4 types of sources that a State program must provide for in its 40 CFR Part 70 permitting.
6. State the permitting status of non-major sources, according to 40 CFR 70.3(a) exemptions.
7. Identify the elements to be considered in calculating a source's actual emissions.
8. Calculate maximum capacity and describe how maximum capacity is used to determine potential to emit.
9. Identify and describe 6 types of potential emissions points.
10. Research and discuss air pollution control technologies
11. Identify the CFR citation for EPA procedures for monitoring air emissions.
12. Differentiate between Effluent Limitation Standards and Pretreatment Standards.
13. Identify and describe the applicability of five types of permits under NPDES.
14. Differentiate between Ambient Water Criteria and Effluent Limitations as they relate to toxic pollutant standards.
15. Identify and describe pretreatment technologies.
16. Identify potential sources of discharge for which the effluent limitation standards for toxic pollutants are applicable.
17. Identify the types of storm water samples taken for first flush and flow or time-weighted sampling.
18. Identify categories of facilities considered to be engaging in potential storm water discharge associated with industrial activity.
19. Analyze a facility's compliance with provisions of the Storm Water Permitting and Oil Pollution Prevention Planning regulations.
20. Describe the type of facility that must monitor and analyze storm water discharge at least once per year.
21. Determine and discuss best management practices that may be addressed in a storm water pollution prevention plan.
22. Differentiate the applicability of the Spill Prevention, Control, and Countermeasures (SPCC) regulations and the Underground Storage Tank (UST) regulations.

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
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BARTON COMMUNITY COLLEGE

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1006
Course Title: Permit Required Confined Space Entry
Credit Hours: 1.5
Prerequisite: None
Division/Discipline: Technical Education Division
Course Description: This course is designed to enable students to recognize, evaluate, prevent, and abate safety and health hazards associated with confined space entry. Technical topics include the recognition of confined space hazards, basic information about instrumentation used to evaluate atmospheric hazards, and ventilation techniques. This course features hands-on exercises on permit entry classification and program evaluation.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

The purpose of this course is to help ensure that employees who may enter Permit Required Confined Spaces (PRCS) have the requisite knowledge and skills to do so safely and in accordance with the requirements of 29 Code of Federal Regulation (CFR) 1910.146. By following these standards, the knowledge learned can be used in present and future employment. This class will provide employers awareness in 29 CFR 1910.146 (g) that covers the training requirements for providing a safe and healthful workplace for their employees.
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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes and Core Competencies

1. Describe chemical awareness, basic toxicology, geological and radiological hazards.

   a. Identify a hazard and select the proper personal protective equipment needed.
   b. Explain the importance of chemical identification and hazard recognition.

2. Recognize site hazards and interpret Safety Data Sheets (SDS).

   a. Determine if chemical(s) taken into a Permit Required Confined Space (PRCS) create supplementary hazards.
   b. Distinguish the various methods used in hazard recognition to enable workers to see the need to implement the appropriate engineering controls, work practices, and selection of personal protective equipment for hazard protection

3. Distinguish a Permit Required Confined Space (PRCS) from a Non-Permit Required Confined Space (NPRCS), and the deadly undertaking of entering these spaces.

   a. Recognize confined spaces and the permits that are required prior to entering these areas.

4. Select a "competent person" as prescribed by 29 CFR 1910.146.

   a. Explain the specific duties of affected personnel (Authorized Entrant, Attendant, Supervisor, and Emergency Services).

5. Select and use various types of air monitoring devices and recognize their limitations.

   a. Conduct atmospheric testing for evaluation and verification in a Permit Required Confined Space (PRCS).
   b. Use and explain the limits of single gas monitors as compared to four gas monitors.
   c. Recognize the purpose of respirators and their restrictions.

6. Choose the control for various different sources of hazardous energy required by the Lock Out/ Tag Out program.

a. Extrapolate the provisions set forth in 29 CFR 1910.147 of the general Industry Standard (Control of Energy).

7. Describe the need for a Permit Required Confined Space (PRCS) rescue team along with the Federal Guidelines listed in 29 CFR 1910.146 (k).

a. Implement the correct procedures utilized in entry rescue operations.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
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BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1007
Course Title: Guide to Industrial Hygiene
Credit Hours: 2
Prerequisite: None
Division/Discipline: Technical Education Division
Course Description: This course is designed for those interested in increasing knowledge of industrial hygiene practices and related Occupational Safety and Health Administration (OSHA) regulations and procedures. Topics include permissible exposure limits, OSHA health standards, respiratory protection, engineering controls, hazard communication, and sampling. Activities are focused on health hazard recognition and the use of OSHA standards and Safety and Health programs.

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Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

The purpose of Guide to Industrial Hygiene course is intended to increase knowledge of OSHA regulations related to industrial hygiene as well as relevant industrial hygiene practices and procedures. Specific topics such as permissible exposure limits, respiratory protection, engineering controls, hazard communication, sampling instrumentation, hearing conservation, workplace health program and other industrial hygiene issues will be addressed. This course is recommended for those with the responsibility of managing safety and health in the workplace, safety committee members, and other personnel responsible for safety.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes and Core Competencies

1) Define terms relating to OSHA health requirements.
    a. Describe toxicology
    b. Distinguish between ionizing and non-ionizing radiation.
    c. Define the hazards associated with asbestos, silica, and lead.
    d. Determine the Action Level for a given chemical.
    e. Explain Ceiling Level value and its uses.
    f. Define Molecular Weight and describe how it's used in formulas.

2) Identify potential health hazards in the workplace.
    a. Conduct a hazardous assessment of a workplace.
    b. List the possible corrections for the hazard assessment.

c. Interpret an Exposure Assessment.
d. Determine appropriate ventilation procedures.

3) Perform basic health hazard evaluations using OSHA sampling procedures.
   a. Calculate the Time Weighted Average (TWA) for chemical exposure, and noise.
   b. Compute noise level readings.
   c. Analyze air contaminant samplings.
   d. Convert parts per million (ppm) to milligrams per cubic meter, and milligrams per cubic meter to ppm.
   e. Determine the Threshold Limit Value (TLV) and Short-Term Exposure Limit (STEL) for chemical hazards found in workplaces.
   f. Explain and use the mixture rule formula.
   g. Conduct a Job Hazard Analysis (JHA).

4) Recommend suitable strategies for controlling hazardous conditions.
   a. Develop engineering, administrative, and personal protective equipment control measures to eliminate the hazards.
   b. Explain OSHA standards for performing duties around blood borne pathogens.
   c. Using ergonomic principles assess a work station.

5) Describe the elements required for an effective workplace safety and health program.
   a. Define the process for creating, implementing, and enforcing a worker safety program.
   b. Determine what OSHA records must be maintained and length of retention.
   c. Distinguish and classify permit required confined spaces from non-permit required confined spaces.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
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IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1008
Course Title: Principles of Ergonomics
Credit Hours: 1.5
Prerequisite: None

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Division/Discipline: Technical Education Division
Course Description: This course will familiarize participants with the application of ergonomic principles for the reduction of musculoskeletal stress and strain in the workplace with the goal of controlling or preventing workplace musculoskeletal and nerve disorders. Participants will conduct a task analysis of jobs to identify risk factors and present plans for worker protection.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course covers the use of ergonomic principles to recognize, evaluate, and control work place conditions that cause or contribute to musculoskeletal and nerve disorders. Topics include work physiology, anthropometry, musculoskeletal disorders (MSD), use of video display terminals, and risk factors such as vibration, temperature, material handling, repetition, and lifting and transfers in health care. Course emphasis is on industrial case studies covering analysis and design of work stations and equipment, exercises in manual lifting, and coverage of current Occupational Safety and Health Administration (OSHA) compliance policies.

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IV. ASSESSMENT OF STUDENT LEARNING

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with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes and Core Competencies

1. Describe the impact of job and workplace design on employee safety and health.
   a. Identify ergonomics and the concept of neutral postures.
   b. Define cumulative trauma disorders.
   c. Calculate methods used to help minimize musculoskeletal disorders (MSD).
   d. Analyze job tasks which have been associated with the development of MSDs.
   e. Explain the importance of reporting symptoms and injuries in the workplace.
   f. Assess injuries and ergonomic applications in construction.

2. Identify workplace characteristics that may contribute to cumulative trauma disorders.
   a. Develop ergonomic checklists to identify risk factors from work tasks.
   b. Conduct detailed worksite evaluations.

3. List improvements in job, workstation, and equipment design that can reduce the potential for musculoskeletal injury.
   a. Combine walk-throughs, observations, employee interviews, surveys, and questionnaires to formulate effective MSDs reductions.

4. Analyze manual lifting tasks and estimate reasonable lifting limits.
   a. Design lifting techniques using National Institute of Occupational Safety & Health (NIOSH) work practices guidelines for manual lifting.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
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X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1009
Course Title: Fall Arrest Systems
Credit Hours: 1.5
Prerequisite: None

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Division/Discipline: Technical Education Division
Course Description: This course provides an overview of state-of-the-art technology for fall protection and current Occupational Safety & Health Administration (OSHA) requirements. Topics covered include principles of fall protection, components of fall arrest systems, limitations of fall arrest equipment, and OSHA policies regarding fall protection. Course features exercises and activities using fall protection equipment.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

The OSHA 3115 Fall Arrest System course provides an overview of state-of-the-art technology for fall protection and current OSHA requirements. In order to properly work at heights it takes a combination of understanding the requirements of how to conduct an effective fall protection audit and risk assessment according to OSHA and 29 Code of Federal Regulation (CFR) 1926 standards. OSHA's enforcement of the program combined with minimum standards that must be followed will be presented.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING

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with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes and Core Competencies

8. Describe the duty to have fall protection/ Personal Fall Arrest System (PFAS) on construction sites.
a. Explain the reason for properly utilizing fall protection or PFAS.

9. Distinguish the various conventional methods of fall protection from available non-conventional fall systems.
a. Decide which fall protection method would work best for a given construction site scenario.
b. Explain your chosen method of fall protection using evidence from the course.

10. Identify fall protection systems for the following sectors of construction; Residential Construction, Scaffold Erectors, Steel erection.
a. Explain why a particular system was chosen.
b. Analyze the effectiveness of the system to prevent falls.

11. Conduct PFAS fitting and a suspension exercise.
a. Select, examine, and demonstrate the proper method for using a fall protection harness.

12. Choose anchor points and means of connection using a given fall protection system.
a. Compare the various types of anchor points then select the best suited
b. Categorize the different lanyards and choose one to be combined with the anchor point to establish an operational fall protection system.

13. Compare and contrast the differences between vertical and horizontal travel systems.
a. Define the differences between vertical and horizontal
b. Devise a plan for using both a vertical and horizontal travel system.

14. Detect faults of a used PFAS.
a. Evaluate if the PFAS is within the OSHA safety standards for use.

15. Describe the need for a rescue plan using the Federal Guidelines listed in 29 CFR 1926.
a. Implement accurate procedures for rescue/ retrieval operations.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1010
Course Title: Electrical Standards
Credit Hours: 2
Prerequisite: None
Division/Discipline: Technical Education Division
Course Description: This course is designed to provide the student with a survey of Occupational Safety and Health Administration's (OSHA) electrical standards and the hazards associated with electrical installations and equipment. Topics include single and three-phase systems, cord and plug connected and fixed equipment, grounding, ground fault circuit interrupters, and safety-related work practices. Emphasis is placed on electrical hazard recognition and OSHA policies and procedures. Students will also receive instruction on the safe and correct use of electrical testing equipment.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course utilizes the OSHA standards and the National Electrical Code (NEC) to provide an overview of electrical installations and equipment with an emphasis on controlling electrical hazards. Students gain knowledge of single and three phase systems, energized parts, cord and plug connected equipment, fixed equipment, grounding, ground fault circuit interrupters, personal protective equipment, hazardous energy

control, and safe work practices. Special emphasis is placed on electrical hazard recognition and OSHA inspection procedures.

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IV. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes and Core Competencies

1. Explain the fundamental concepts of electricity.
   a. Identify basic electrical wiring fundamentals.
   b. Describe grounding requirements and how to accomplish while staying in compliance with OSHA and NEC standards.
   c. Explain how ground fault circuit interrupters protect personnel.
   d. Construct temporary wiring and clarify its use.
   e. Explain why portable generators can be potentially dangerous.
   f. Compare and contrast single and three-phase electrical systems.

2. Detect electrical hazards with the aid of test equipment.
   a. Determine hazardous locations by conducting voltage and ampere assessment.
   b. Determine which OSHA standards apply and achieve the appropriate abatement.
   c. Employ methods to control hazardous energy (Lockout/ Tagout).
   d. Determine the need for over-current protection.

3. Determine the potential severity of electrical current on the human body with respect to the amount of current flow, current path, and duration of exposure.
   a. Explain the need for dielectric personal protective equipment.
   b. Employ personal protective standards to achieve proper stand-off distances.

4. Identify applicable portions of the NEC and explain how it ties into OSHA's electrical standards.
   a. Explain OSHA's construction electrical standards guidelines.
   b. Determine electrical requirements for portable equipment.
   c. Determine electrical requirements for fixed equipment.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1011
Course Title: Excavation, Trenching and Soil Mechanics
Credit Hours: 2
Prerequisite: None
Division/Discipline: Technical Education Division
Course Description: This course focuses on Occupational Safety and Health Administration (OSHA) standards and the safety aspects of excavation and trenching. Students are introduced to practical soil mechanics and its relationship to the stability of shored and un-shored slopes and walls of excavations. Various types of shoring (wood timbers and hydraulic) are covered. Testing methods are demonstrated and activities conducted to allow students to use instruments such as penetrometers, torvane shears, and engineering rods.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Course encompasses learning OSHA standards and the safety aspects of excavation and trenching. Practical soil mechanics are presented and its relationship to the stability of shored and un-shored slopes and walls of excavations. Topics Include: Principles and Applications, Sloping, Benching, and Shoring.

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Course Outcomes and Core Competencies

1. Describe the impact of job and workplace design on employee safety and health.
   a. Outline the standards given in 29 Code of Federal Regulations (CFR) 1926 Subpart P
   b. Identify the common hazards involved with open earth work and appropriate controls.
   c. Distinguish the duties and responsibilities of a competent person.
2. Explain the requirements for protecting excavations from cave-ins or other types of failure.
   a. Explain the requirements for the design of sloping and benching systems.
   b. Display by graphic summary, the process used to select protective systems.
   c. Describe the four classes of soil classification and identify the tests used to determine them.
   d. Using tools, demonstrate the various field tests for soil.
3. Explain the requirements for the design of sloping and benching systems.
   a. Interpret OSHA's standards for the angle of repose.
   b. Differentiate and explain when a shoring or sloping system is used and under what conditions.
   c. Explain the actions required if damaged or defective material or equipment is discovered during an inspection.
4. Describe the limitations, proper installation and other requirements relating to protective systems.
   a. Determine when timber shoring for trenches should be installed.
   b. Explain the advantages for using aluminum hydraulic shoring for trenches.
   c. List alternatives to timber shoring in trenching operations.
   d. List the most frequent OSHA violations involving concrete and masonry construction and identify the controls necessary to eliminate the associated hazards.
   e. Describe the health hazards posed by concrete and the recommended controls.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

f. Determine the details of an emergency action plan that would be considered in compliance with OSHA requirements.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1012
Course Title: Hazardous Materials
Credit Hours: 2
Prerequisite: None
Division/Discipline:
Course Description: This course provides a detailed overview of the Occupational Safety and Health Administration's (OSHA) general industry standards related to hazardous materials. Topics covered include flammable and combustible liquids, compressed gasses, cryogenic liquids, and liquid petroleum. Hazardous processes such as spraying and dipping operations are covered as well.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

This course is designed to provide students with instruction in hazardous material classifications, general environmental controls, process safety management, and emergency planning. This course is recommended for those with the responsibility of managing safety and health in the workplace, safety committee members, and other personnel responsible for safety.

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Course Outcomes & Core Competencies

1. Assess compliance with the sections of OSHA standards 29 Code Federal Regulations (CFR) 1910 Subparts H and S regarding hazardous (Classified) locations.
   a. Identify primary hazards related to hazardous (classified) locations.
   b. Select relevant standards for hazardous (classified) locations.
   c. Explain primary abatement strategies for the specific locations.

2. Interpret OSHA standard 29 CFR 1910.106 regarding flammable and combustible liquids.
   a. Identify primary hazards related to the movement, storage and use of flammable and combustible liquids.
   b. Select relevant standards as they relate to moving, storing and handling of flammable and combustible liquids.
   c. Explain primary abatement strategies for the specific flammable and combustible liquid hazards.

3. Identify OSHA requirements related to compressed gases, acetylene and nitrous oxide.
   a. Identify primary hazards related to movement storage and use of compressed gases, acetylene and nitrous oxide.
   b. Select relevant standards as they relate to moving, storage and handling of compressed gases.
   c. Explain primary abatement strategies for the specific compressed gases hazards.

4. Differentiate OSHA requirements related to cryogenics and refrigerated liquids.
   a. Identify primary hazards related to movement, storage and use of cryogenics and

refrigerated liquids.

b. Select relevant standards as they relate to moving, storing and handling of cryogenics and refrigerated liquids.

c. Explain primary abatement strategies for the specific cryogenics and refrigerated liquid hazards.

5. Interpret OSHA standard 29 CFR 1910.107 and general duty clause related to spray finishes.
   a. Identify primary hazards related to common spray finishing operations.
   b. Select relevant standards as they relate to spray finishing.
   c. Explain primary abatement strategies for the specific hazards common to spray finishing processes

6. Interpret OSHA standard 29 CFR 1910.122-126 regarding dipping and coating operations.
   a. Identify primary hazards of dipping and coating operations.
   b. Select relevant standards as they relate to dipping and coating operations.
   c. Explain primary abatement strategies for the specific hazards related to dipping and coating operations

7. Interpret OSHA standard 29 CFR 1910.111 regarding storage and handling of anhydrous ammonia.
   a. Identify primary hazards related to the movement, storage and use of Ammonia Anhydrous
   b. Select relevant standards as they relate to movement, storage and use of Ammonia Anhydrous.
   c. Explain primary abatement strategies for the specific hazards related to Ammonia Anhydrous.

8. Interpret OSHA standard 29 CFR 1910.110 regarding storage and handling of liquefied petroleum gasses Subpart H.
   a. Identify primary fire and explosion hazards of LP Gases
   b. Select relevant standards as they relate to liquid petroleum.
   c. Explain primary abatement strategies for the specific hazards to the use of LP gases

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1013
Course Title: Machinery and Machine Guarding Standards
Credit Hours: 2
Prerequisite: None
Division/Discipline: Technical Education Division
Course Description: This course provides instruction provided on the hazards associated with various kinds of machinery and the control of hazardous energy sources. The course presents an approach to machinery inspection that enables participants to recognize hazards and to provide options to achieve abatement. These hazards include mechanical motions and actions created by points of operation and other machinery processes.

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III. COURSE AS VIEWED IN THE TOTAL CURRICULUM

Machinery and Machine Guarding Standards stresses an understanding of the complexity of the industrial hazard control problem by thoroughly examining elements of safety and health enumerated in the Occupational Safety and Health Administration (OSHA) general industry standards.
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IV. ASSESSMENT OF STUDENT LEARNING

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Course Outcomes and Core Competencies

1) Distinguish among basic types of manufacturing processes.
   a) Describe sources of energy
   b) Determine need for a lockout/tagout program

2) Identify specific violations of current OSHA standards.
   a) Choose the appropriate standard that covers an identified hazard.
   b) Interpret the standard and the steps needed to correct an identified hazard.

3) Identify other sources of safety and health standards such as the American National Standards Institute (ANSI).
   a) List and compare other reputable sources that are available for guidance.
   b) Choose and apply an appropriate source for the situation at hand.

4) Describe important considerations in building design and layout such as egress, walking surfaces, materials handling, sanitation, and traffic control.
   a) Examine the regulations and interpret if a scenario is within the sited standard.
   b) Give examples of methods to comply with sanitation standards.

5) Define the specific classes of industrial trucks and the common hazards associated with their operation and control strategies to reduce hazards.
   a) Compare and contrast off-road, electric, propane, and diesel industrial trucks.
   b) Develop procedures of hazard isolation on a given industrial truck.

6) Identify point of operation and power transmission exposures for a variety of industrial equipment.
   a) Differentiate between hydraulic, electric, and other commonly cited hazards.
   b) Explain the point of operation and how it relates to machine guarding.

7) Develop implementation strategies for reducing machine related exposures.
   a) Explain ways to control energy sources given a situation.
   b) Define the difference between lock Out/tag out and blocking.

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VII. REFERENCES

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1914
Course Title: OSHA General Industry Regulations
Credit Hours: 2-3
Prerequisite: None
Division and Discipline: Environmental Technology
Course Description: This course will train students on Occupational Safety and Health Act, (OSHA) regulations pertaining to General Industry standards that are set forth in the Code of Federal Regulations 29, parts 1910, 1903 and 1904.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course will provide the student with knowledge of OSHA general industry standards and the requirements of 29 CFR 1910 that can be used in their workplace. By following these standards, the knowledge learned can be used in present and future employment and will provide employers with a safe workplace for their employees.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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IV. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton Community College assesses student learning at several levels: instructional, program, degree and classroom. The goal of the 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. Explain why OSHA is important to employers and workers.
2. Explain worker rights and employers responsibilities under OSHA.
3. Explain how OSHA's inspections are conducted.
4. Demonstrate an understanding of OSHA's General Industry workplace safety requirements
5. Locate and interpret workplace safety requirements for a workplace using 29 CFR parts 1910, 1903 and 1904.
6. Understand required written programs for a given workplace or industry.

V. COMPETENCIES

1. Explain why OSHA is important to workers.
   a. Identify key dates
   b. Explain the goals of OSHA
   c. Explain the federal register system
   d. Define and contrast Horizontal and Vertical standards
   e. Discuss policies under the general duties clause 5(a)(1)

2. Explain worker rights and employers responsibilities under OSHA.
   a. Train employees in recognition, avoidance and prevention of unsafe conditions
   b. Explain why safety is important for employee and employer

3. Demonstrate an understanding of OSHA's inspection procedures.
   a. Explain OSHA's inspection procedures and priority of inspection
   b. Explain the abatement process
   c. Identify and explain general guidelines on focused inspections as they pertain to a given workplace.

4. Demonstrate and understanding of OSHA's general Industry workplace safety requirements

a. Identify safety requirements under the following topics:
b. General safety and health provisions. Subpart A
c. Changes in established Federal standards. Subpart B
d. Walking-Working Surfaces. Subpart D
e. Exit Routes, Emergency Action Plans and Fire Prevention. Subpart E
f. Powered Platforms, Man lifts and Vehicle-mounted work platforms. Subpart F
g. Occupational Health and Environmental Control. Subpart G
h. Hazardous Materials. Subpart H
i. Personal Protective Equipment. Subpart I
j. General Environmental Controls. Subpart J
k. Medical and first Aid. Subpart K
l. Fire Protection. Subpart L
m. Materials Handling and Storage. Subpart N
n. Machinery and Machine Guards. Subpart O
o. Hand and Portable Powered Tools. Subpart P
p. Welding, Cutting and Brazing. Subpart Q
q. Electrical. Subpart S
r. Toxic and Hazardous Substances. Subpart Z
s. Inspections, Citations, and Proposed Penalties. Part 1903
t. Recording and Reporting Occupational Injuries and Illnesses. Part 1904

5. Locate and interpret workplace safety requirements for a workplace using 29 CFR parts 1910, 1903 and 1904.
1. Locate and interpret workplace requirements.
2. Conduct a safety audit of a given work area.
3. Prepare compliance recommendations for safely violations.

6. Understand required written programs for a given workplace or industry
a. Identify requirements for a workplace safety program
b. Determine required programs required for a workplace.
c. Prepare a written HAZCOM program for a workplace.

VI. INSTRUCTOR EXPECTION OF STUDENTS IN CLASS
VII. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1927
Course Title: Fundamentals of Occupational Safety and Health Construction Industry
Credit Hours: 3
Prerequisite: None
Division and Discipline: Occupational Safety and Health
Course Description: This course will instruct students on the Occupational Safety and Health Act (OSHA) and regulations pertaining to construction standards set forth in the Code of Federal Regulations 29 part 1926.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course will instruct students on OSHA construction standards requirements of 29 CFR 1926 that can be used in the workplace. This is a required course in the Occupational Safety and Health Degree.

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Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Course Outcomes

A. Explain why OSHA is important to workers.
   1. Identify key dates
   2. Explain the goals of OSHA
   3. Explain the federal register system
   4. Define and contrast Horizontal and Vertical standards
   5. Analyze policies under the general duties clause 5(a)(1)

B. Explain worker rights and employers responsibilities under OSHA.
   1. Train personnel in recognition, avoidance and prevention of unsafe conditions
   2. Explain why safety is important for employee and employer

C. Explain how OSHA's inspection are conducted
   1. Explain OSHA's inspection procedures and priority of inspection
   2. Explain the abatement process
   3. Analyze general guidelines on focused inspections

D. Determine OSHA's safety requirements for the construction industry
   1. Identify safety requirements under the following topics:
      a. General safety and health provisions Subpart C
      b. Competent person Subpart C
      c. Electrical standards Subpart K
      d. Fall protection standards and devices Subpart M
      e. Occupational health and environmental controls Subpart D
      f. PPE and lifesaving equipment Subpart E
      g. Health hazards in construction Subpart D
      h. Material handling, rigging, storage, use and disposal Subpart H
      i. Hand and power tools with machine guarding Subpart I
      j. Welding and cutting requirements Subpart J
      k. Scaffolding requirement Subpart L
      l. Cranes derricks, hoist, elevators, and conveyors Subpart N
      m. Motor vehicles mechanized equipment operations, rollover protection structures, overhead protection and signs, signals and barricades Subpart O, W, and G
      n. Excavations Subpart P
      o. Concrete and masonry requirements of construction Subpart Q
      p. Ladders and stairways Subpart X
      q. Confined space entry Subpart C

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

r. Fire protection and prevention Subpart F

E. Locate and interpret workplace safety requirements using 29 CFR 1926.
1. Locate and interpret construction safety requirements.
2. Conduct a safety audit of a given work site.
3. Prepare compliance recommendations for safely violations.

F. Analyze written program requirements
1. Determine safety programs and requirements for construction sites.
2. Prepare a written safety program for a worksite.

V. INSTRUCTOR EXPECTION OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1928
Course Title: Fundamentals of Occupational Safety and Health General Industry
Credit Hours: 3
Prerequisite: None
Division and Discipline: Occupational Safety and Health
Course Description: This course will instruct students on the importance of the Occupational Safety and Health Act (OSHA) and regulations pertaining to General Industry standards set forth in the Code of Federal Regulations 29, Parts 1910. 1903 and 1904.

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Course Outcomes

1. Explain OSHA's importance to employers and workers
   a. Identify key dates
   b. Explain the goals of OSHA
   c. Explain why OSHA is important to workers
   d. Explain the federal register system
   e. Define and contrast horizontal and vertical standards
   f. Analyze policies under the general duty clause 5(a)(1)

2. Explain worker rights and employer responsibilities under OSHA
   a. Identify the rights of a worker to have a safe and healthful workplace
   b. Train employees in recognition, avoidance and prevention of unsafe conditions
   c. Define and discuss employer responsibilities to provide an safe and healthful workplace for employees

3. Explain OSHA's inspection procedures.
   a. Define and explain OSHA's inspection procedures and priorities of inspection

b. Identify employee rights and responsibilities
c. Define and explain the abatement process
d. Identify and explain general guidelines on focused inspections as they pertain to a given workplace

4. Define OSHA's general industry workplace safety requirements.
   a. Identify safety requirements under the following topics:
      a. Introduction to OSHA
      b. General safety and health provisions. Subpart A
      c. Changes in established Federal standards. Subpart B
      d. Walking and Working Surfaces. Subpart D
      e. Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection. Subpart E
      f. Powered Platforms, Man lifts and Vehicle-mounted work platforms. Subpart F
      g. Occupational Health and Environmental Control. Subpart G
      h. Hazardous Materials. Subpart H
      i. Personal Protective Equipment (PPE). Subpart I
      j. Genera; Environmental Controls. Subpart J
      k. Medical and First-Aid. Subpart K
      l. Fire Protection. Subpart L
      m. Materials Handling and Storage. Subpart N
      n. Machinery and Machine Guards. Subpart O
      o. Hand and Portable Powered Tools. Subpart P
      p. Welding, Cutting and Brazing. Subpart Q
      q. Electrical. Subpart S
      r. Toxic and Hazardous Substances. Subpart Z
      s. Inspections, Citations and Proposed Penalties. Part 1903
      t. Recordkeeping and Reporting Occupational Injuries and Illness. Part 1904

5. Locate and interpret workplace safety requirements using 29 CFR parts 1910, 1903 and 1904.
   1. Locate and interpret workplace requirements
   2. Conduct a safety audit of a given work area
   3. Prepare compliance recommendations for safety violations

6. Determine required written programs for a given workplace or industry
   1. Identify requirements for a workplace safety program
   2. Prepare a written HAZCOM program for a workplace

V. INSTRUCTOR EXPECTION OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1929
Course Title: Introduction to Fire Prevention
Credit Hours: 3
Prerequisite: None
Division and Discipline: Occupational Safety and Health
Course Description: This course will provide fundamental information regarding the history and philosophy of fire prevention to students through the study of fire codes, identification and correction of fire hazards, and addressing the relationships of fire prevention with built-in fire protection systems, fire investigation and fire and life-safety education.

II. CLASSROOM POLICY

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course will provide the student with a basic knowledge of the history of fire prevention and some historical events which have effected modern day fire codes, procedures and related technology. Introduction to Fire Prevention is a required course in the Occupational Safety and Health degree.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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IV. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes

7. Describe the duties, standards, codes and permits associated with fire prevention.
   g. Identify key terms
   h. Explain the goals of fire prevention
   i. Explain why fire prevention is important
   j. Define the key standards associated with fire prevention
   k. Locate the appropriate fire codes associated with prevention activities

8. Explain the basic concepts of fire behavior
   e. Define key terms associated with fire behavior
   f. Identify and explain how fire prevention practices effect fire behavior

9. Explain how building construction types and occupancy classifications relate to fire prevention activities.
   a. Explain the different materials and structural systems in building construction relating to fire prevention
   b. Explain the different components in building construction relating to fire prevention

10. Evaluate the impact of fire prevention measures on reducing the loss of life and property in fire related emergencies.
   4. Explain the differences between water-based and special-agent fire extinguishing systems and extinguishers
   5. Locate and interpret requirements for fire detection systems in different types of building occupancies
   6. Identify the requirements of site access in reference to fire codes

11. Explain how building contents can effect fire prevention efforts.
   a. Define descriptions and identification methods of the presence of hazardous materials
   b. Describe the appropriate storage, handling, dispensing, transporting, usage and disposal of hazardous materials

12. Explain the need for standardized inspection procedures in the fire prevention field.
    a. Identify the key elements to a fire prevention inspection
    b. Conduct a fire prevention inspection of a workplace
    c. Develop a fire prevention plan for a workplace
    d. Identify key elements to a review process
    e. Perform a field verification of a plan to assess its effectiveness

V. INSTRUCTOR EXPECTION OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1930
Course Title: Practicum in Occupational Safety and Health
Credit Hours: 3
Division and Discipline: Occupational Safety and Health
Course Description: This practicum focuses Occupational Safety and Health practical experience in work practice controls and hazard recognition. Students will develop for a selected business standard procedures required to identify and correct hazards in the workplace.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This Practicum provides the student with hands-on experience in how to recognize, alleviate, and address hazards in a workplace. Practicum in Occupational Safety and Health is required for completion of the Occupational Safety and Health Degree.

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IV. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes

A. Prepare a hazard analysis and risk assessment
1. Define Job Hazard Analysis (JHA)
2. Illustrate how the JHA is the foundation of safety development
B. Identify the standards for selected jobs in general industry/ construction
1. Given a task in general industry/ construction, research which standards apply to it
C. Explain the human role in the safety process
1. Give a basic overview of the behavioral process
2. Define elements that contribute to at-risk events
3. Determine reasons why employees put themselves at risk
D. Evaluate safety and health training requirements
1. Classify which job tasks should have training and how often it must be conducted
2. Design a training plan to meet OSHA training requirements
E. Implement safety procedures in the workplace
1. Determine the training needs of an organization
2. Compile all necessary paperwork to track safety training as outlined in OSHA standards
F. Explain techniques for creating a lasting safety culture
1. Develop training to modify human behavior as it applies to workplace safety
2. Devise a method for measuring learning retention

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1931
Course Title: Safety Training Methods for Adult Learners
Credit Hours: 3
Division and Discipline: Occupational Safety and Health
Course Description: Instruction consists of a review and study of the training methods and practices used to develop and incorporate safety job skills in the workplace.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

Course of study includes both general Industry and construction practices on development of effective training techniques regarding safe and healthful work environments. Safety Training Methods for Adult Learners is a required course for the Occupational Safety and Health Degree.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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IV. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes

11. Explain the principles of safety education, training and instruction
    f. Define andragogy
    g. Explain the 14 andragogy principles
    h. Distinguish between education, training and instruction
    i. Describe Malcolm Knowles six principles of adult learning
    j. Define ways Knowles' Adult Learning Principles can be used to facilitate adult learning in safety training
    k. Describe natural and system consequences
    l. Distinguish education, training and when real learning occurs
    m. Recognize how natural and system consequences effect organizational culture
    n. Summarize the how safety education and training effect natural and system consequences

12. Develop a training program
    g. Identify the needs assessment process
    h. Summarize the relationship between the JHA and needs assessment process
    i. Describe the factors involved in prioritizing safety training
    j. List some topics that would be used to train supervisors and managers
    k. Distinguish between goals and objectives
    l. Explain the ANZI Z490.1 guidelines for learning objectives when hazardous procedures and processes are taught

13. Define trainer roles and responsibilities
    i. Explain the types of roles, according to the American Society for Training and Development (ASTD), trainers typically perform
    j. Describe ANSI Z490.1-2009 instructor qualifications
    k. Explain the differences between ANSI Z490.1-2009 instructor qualifications and OSHA Guidelines for instructor competency
    l. Define methods for evaluating trainers

m. Summarize management involvement in training

14. Explain and demonstrate training presentation strategies
    a. Explain what OSHA means by "demonstrate" in its standards
    b. List training presentation strategies
    c. Explain the three most important training requirements
    d. Identify the correct sequence of training
    e. List types of media that can be used in training
    f. Summarize how to prepare visual aids
    g. Devise a lesson plan

15. Evaluate classroom management practices.
    e. Describe the 8 different learning styles for adult learners (Visual, Auditory, Kinesthetic, Tactile, Active, Reflective, Global Understanding, Analytical Understanding)
    f. Define field dependent and field independent
    g. Define the ABCs of behavior
    h. Compare and contrast effective presentation styles for adult learners
    i. Describe the principles of motivation
    j. Describe effective listening and how to answer questions without sending a negative message
    k. Explain how body language communicates to students
    l. Summarize strategies for handling problem situations in the training environment

16. Explain the evaluation process for On-the-Job Training (OJT)
    e. Define the purpose of OJT
    f. Describe the 7 Step OJT process
    g. Discuss advantages and disadvantages of computer based training (CBT)

V. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number:	OSHA 1932
Course Title:	Work Practices Controls/Safety Audits
Credit Hours:	3
Division and Discipline:	Occupational Safety and Health

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Course Description: This course discusses the logical flow of hazard recognition to Job Hazard Analysis (JHA) and development of successful safety cultures and programs that support the management process. Work practice controls and hazard recognition will provide the basic foundation necessary to identify and correct hazards in the workplace.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This course provides a foundation on how to identify, mitigate, and correct hazards in a workplace. Work Practices Controls/Safety Audits is a required course in the Occupational Safety and Health Degree.

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IV. ASSESSMENT OF STUDENT LEARNING

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Course Outcomes

A. Prepare a hazard analysis and conduct risk assessment

1. Define Job Hazard Analysis (JHA)

2. Explain why the JHA should be the centerpiece of the safety process
3. Assess the objectives of hazard recognition
4. Explain how the JHA can provide the core criteria for an assessment
5. Develop a systematic approach to the assessment process

B. Explain workplace hazard analysis and review the associated risks
1. Identify when to use audits and inspections
2. Define the roles played by outside specialists, supervisors, employees
3. Determine who should be involved in the review
4. Identify sources for risk and hazard data

C. Examine the human role in the safety process
1. Describe the behavioral process
2. Define elements that contribute to at-risk events
3. Cite the seven guiding principles and five core functions of integrated safety management
4. Determine if an organization is ready for a behavioral approach to safety

D. Assess safety and health training needs
1. Describe a good training program
2. Design a training program
3. Describe various training methods
4. Develop learning objectives
5. Cite levels of training program evaluation

E. Deconstruct a job into individual components
1. Define the basic steps in JHA development
2. Identify methods for breaking the job down into steps and tasks
3. Construct a cause-and-effect diagram

F. Evaluate the safety management process
1. Identify the warning signs for system issues
2. Explain the PDSA (Plan-Do-Study-Act) method for assessing a problem

G. Evaluate Six Sigma as a management system
1. Explain the basic framework used by Six Sigma
2. Explain the process improvement criteria
3. Analyze various tools used in Six Sigma
4. Cite and define the levels of Six Sigma

V. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1970
Course Title: OSHA TRAINER COURSE IN STANDARDS FOR THE CONTRUCTION INDUSTRY
Credit Hours: 1-3 Credit Hours
Prerequisite: 510 OSHA Standards for Construction or HZMT 1925 Standards for OSHA Construction.
Division and Discipline: Environmental Technology
Course Description: This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour construction courses.
Variable Credit: 40 hours for 3 credits, 32 hours for 2.5 credits. The 8 hour difference is for adult learning and presentations.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This advanced course is intended to provide students who inspire to provide workplace training under OSHA's volunteer training program. Successful completion of this course allows the student to become an OSHA "Approved Outreach Instructor" for the 10 and 30 hour construction classes. This course is an elective for the Hazmat and Emergency Management degree and certificate programs.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

IV. ASSESSMENT OF STUDENT LEARNING/COURSEOUTCOMES

Barton Community College assesses student learning at several levels: instructional, program, degree and classroom. The goal of the 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. Demonstrate knowledge of the history of OSHA.
2. Demonstrate an understanding of the adoption and extension of established federal regulations.
3. Demonstrate an understanding of OSHA's inspection procedures.
4. Demonstrate an understanding of OSHA's Construction Industry workplace safety requirements.
5. Demonstrate an understanding of the outreach training program guidelines.

V. COMPETENCIES

1. Demonstrate knowledge of the history of OSHA.
   a. Identify key dates
   b. Explain the goals of OSHA's

2. Demonstrate an understanding of the adoption and extension of established federal regulations.
   a. Explain the federal register system
   b. Define and contrast Horizontal and Vertical standards
   c. Discuss policies under the general duties clause 5(a)(1)

3. Demonstrate an understanding of OSHA's inspection procedures.
   a. Explain OSHA's inspection procedures
   b. Explain employees rights and responsibilities
   c. Explain employers rights and responsibilities
   d. Explain the abatement process
   e. Discuss general guideline on focused inspections

4. Demonstrate an understanding of OSHA's Construction Industry workplace safety requirements.
   a. Identify safety requirements under the following topics:
   b. General safety and health provisions. Subpart C
   c. Competent person. Subpart C

d. Electrical standards. Subpart K
e. Fall protection standards and devices. Subpart M
f. Occupational health and environmental controls. Subpart D
g. PPE and life saving equipment. Subpart E
h. Health hazards in construction. Subpart D
i. Material handling, rigging, storage, use and disposal. Subpart H
j. Hand and power tools with machine guarding. Subpart I
k. Welding and cutting requirements. Subpart J
l. Scaffolding requirement. Subpart L
m. Cranes derricks, hoist, elevators, and conveyors. Subpart N
n. Motor vehicles mechanized equipment operations, rollover protection structures, overhead protection and signs, signals and barricades. Subpart O, W, and G
o. Excavations. Subpart P
p. Concrete and masonry requirements of construction. Subpart Q
q. Ladders and stairways. Subpart X
r. Confined space entry. Subpart C
s. Fire protection and prevention. Subpart F

5. Demonstrate an understanding of the outreach training program guidelines.
   a. Identify required topics for 10 hour and 30 hour class.
   b. Identify training materials needed for 10 and 30 hour class.
   c. Identify requirements for guest trainers.
   d. Explain requirements for in-person training and on-line training.
   e. Identify equipment and instructor requirements versus class size.
   f. Identify requirements for combined 10 hour Construction and General Industry Class.
   g. Identify advertising procedures for both 10 and 30 hour classes
   h. Identify how OSHA monitors outreach training.
   i. Identify procedures to obtain OSHA course completion cards.

VI. INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. ATTENDANCE REQUIREMENTS
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
FORT RILEY CAMPUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1971

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

www.bartonccc.edu 1-800-748-7594

Course Title: OSHA TRAINER COURSE IN STANDARDS FOR GENERAL INDUSTRY
Credit Hours: 1-3
Prerequisite: 511 OSHA Standards for General Industry or HZMT 1914 Standards for OSHA General Industry.
Division and Discipline: Environmental Technology
Course Description: This is an advanced course offered through OSHA's outreach program that prepares and upon successful completion authorizes the student to instruct OSHA's 10 or 30 hour general industry courses.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

This advanced course is intended to provide students who inspire to provide workplace training under OSHA's volunteer training program. Successful completion of this course allows the student to become an OSHA "Approved Outreach Instructor" for the 10 and 30 hour general industry classes. This course is an elective for the Hazmat and Emergency Management degree and certificate programs.

IV. ASSESSMENT OF STUDENT LEARNING/COURSEOUTCOMES

Barton Community College assesses student learning at several levels: instructional, program, degree and classroom. The goal of the 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. Demonstrate knowledge of the history of OSHA.
2. Demonstrate an understanding of the adoption and extension of established federal regulations.
3. Demonstrate an understanding of OSHA's inspection procedures.
4. Demonstrate an understanding of OSHA's General Industry workplace safety requirements.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

5. Demonstrate an understanding of the outreach training program guidelines.

V. COMPETENCIES

1. Demonstrate knowledge of the history of OSHA.
   a. Identify key dates and events
   b. Explain the goals of OSHA's

2. Demonstrate an understanding of the adoption and extension of established federal regulations.
   a. Explain the federal register system
   b. Define and contrast Horizontal and Vertical standards
   c. Define policies under the general duties clause 5(a)(1)

3. Demonstrate an understanding of OSHA's inspection procedures.
   a. Explain OSHA's inspection procedures
   b. Explain employees rights and responsibilities
   c. Explain employers rights and responsibilities
   d. Explain the abatement process
   e. Identify general guidelines on focused inspections

4. Demonstrate an understanding of OSHA's General Industry workplace safety requirements.
   a. Identify safety requirements under the following topics:
5. Walking-Working Surfaces. Subpart D
6. Exit Routes, Emergency Action Plans and Fire Prevention Plans. Subpart E
7. Powered Platforms, Man lifts, and Vehicle Mounted Work Platforms. Subpart F
8. Occupational Health and Environmental Controls. Subpart G
9. Hazardous Materials. Subpart H
10. Personal Protective Equipment. Subpart I
11. General Environmental Controls. Subpart J
12. Fire Protection. Subpart L
13. Materials Handling and Storage, Subpart N
14. Machinery and Machine Guarding. Subpart O
15. Hand and Portable Powered Tools and Other Hand Held Equipment. Subpart P
16. Welding, Cutting and Brazing. Subpart Q
17. Electrical. Subpart S
18. Toxic and Hazardous Substances. Subpart Z

19. Demonstrate an understanding of the outreach training program guidelines.
   a. Identify required and elective topics for 10 hour and 30 hour class.
   b. Identify training materials needed for 10 and 30 hour class.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

c. Identify requirements for guest trainers.
d. Explain requirements for in-person training and on-line training.
e. Identify requirements for class size.
f. Identify requirements for combined 10 hour Construction and General Industry Class.
g. Identify advertising procedures for both 10 and 30 hour classes
h. Discuss how OSHA monitors outreach training.
i. Identify administrative procedures for registering students and requesting OSHA course completion cards.

VI. **INSTRUCTOR EXPECTATION OF STUDENTS IN CLASS**
VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS
VIII. REFERENCES
IX. METHODS OF INSTRUCTION AND EVALUATION
X. **ATTENDANCE REQUIREMENTS**
XI. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1933
Course Title: Workplace Accident Investigation
Credit Hours: 3 credit hours
Division and Discipline: Occupational Safety and Health
Course Description: This course provides an introduction to basic accident investigation procedures and describes accident analysis techniques. The focus of the course is to assist students in gaining the basic skills necessary to conduct an effective accident investigation in a workplace. Topics include the primary reasons for conducting an accident investigation, employer responsibilities related to workplace accident investigations, and the six step accident investigation procedure.

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III. COURSE AS VIEWED IN TOTAL CURRICULUM

Instruction is provided on the basic skills necessary to conduct an effective accident investigation in the workplace. Accident investigations determine the how and why accidents occur. Workplace Accident Investigation is a required course in the Occupational Health and Safety Degree.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

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Course Outcomes

a. Evaluate basic accident investigation concepts and define the characteristics of an effective accident investigation program
   1. Define “accident”
   2. Identify the causes of most accidents

b. Explain the six-step process for conducting accident investigations
   1. Determine the best method for an initial response and public relations
   2. Distinguish between an accident investigation and accident analysis
   3. Identify the direct and indirect costs of an accident

c. Conduct an accident investigation utilizing the six step procedure
   1. Describe the characteristics of an effective accident investigation program
   2. Perform a “Fix the System” incident/accident analysis plan
   3. Conduct a six step accident investigation/analysis
   4. Preserve and document the accident scene
   5. Define the causes of an accident
   6. Determine the cause of an accident

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

7. Conduct a fault tree analysis
8. Describe a Management Oversight and Risk Tree (MORT)
9. Develop recommendations for corrective actions

d. Write a complete accident report
1. Determine how best to use photography equipment
2. Collect facts through interviews
3. Develop the sequence of events
4. Brief participants using a completed accident report

V. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS
VI. TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE
VII. REFERENCES
VIII. METHODS OF INSTRUCTION AND EVALUATION
IX. ATTENDANCE REQUIREMENTS
X. COURSE OUTLINE

BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: OSHA 1926
Course Title: OSHA Construction Industry Regulations
Credit Hours: 2-3
Prerequisite: None
Division and Discipline: Environmental Technology
Course Description: This course will train students on Occupational Safety and Health Act, (OSHA) regulations pertaining to construction standards that are set forth in the Code of Federal Regulations 29, part 1926

II. CLASSROOM POLICY

Students and faculty of Barton 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.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Plagiarism on any academic endeavors at Barton 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 will provide the student with knowledge of OSHA construction standards requirements of 29 CFR 1926 that can be used in their workplace. By following these standards, the knowledge learned can be used in present and future employment and will provide employers with a safe workplace for their employees.

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. It is the student's responsibility 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. ASSESSMENT OF STUDENT LEARNING/COURSE OUTCOMES

Barton Community College assesses student learning at several levels: instructional, program, degree and classroom. The goal of the 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. Explain why OSHA is important to workers.
2. Explain worker rights and employers responsibilities under OSHA.
3. Explain how OSHA's inspections are conducted.
4. Demonstrate and understanding of OSHA's Construction Industry workplace safety requirements
5. Locate and interpret workplace safety requirements for a workplace using 29 CFR parts 1926.
6. Determine written program requirements

V. COMPETENCIES

G. Explain why OSHA is important to workers.
   6. Identify key dates
   7. Explain the goals of OSHA
   8. Explain the federal register system
   9. Define and contrast Horizontal and Vertical standards
   10. Discuss policies under the general duties clause 5(a)(1)

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

H. Explain worker rights and employers responsibilities under OSHA.
3. Train employees in recognition, avoidance and prevention of unsafe conditions
4. Explain why safety is important for employee and employer

I. Demonstrate an understanding of OSHA's inspection procedures.
4. Explain OSHA's inspection procedures and priority of inspection
5. Explain the abatement process
6. Discuss general guidelines on focused inspections

J. Demonstrate and understanding of OSHA's Construction Industry workplace safety requirements
2. Identify safety requirements under the following topics:
3. General safety and health provisions. Subpart C
4. Competent person. Subpart C
5. Electrical standards. Subpart K
6. Fall protection standards and devices. Subpart M
7. Occupational health and environmental controls. Subpart D
8. PPE and life saving equipment. Subpart E
9. Health hazards in construction. Subpart D
10. Material handling, rigging, storage, use and disposal. Subpart H
11. Hand and power tools with machine guarding. Subpart I
12. Welding and cutting requirements. Subpart J
13. Scaffolding requirement. Subpart L
14. Cranes derricks, hoist, elevators, and conveyors. Subpart N
15. Motor vehicles mechanized equipment operations, rollover protection structures, overhead protection and signs, signals and barricades. Subpart O, W, and G
16. Excavations. Subpart P
17. Concrete and masonry requirements of construction. Subpart Q
18. Ladders and stairways. Subpart X
19. Confined space entry. Subpart C
20. Fire protection and prevention. Subpart F

K. Locate and interpret workplace safety requirements for a workplace using 29 CFR parts 1926.
4. Locate and interpret construction safety requirements.
5. Conduct a safety audit of a given work site.
6. Prepare compliance recommendations for safely violations.

L. Determine written program requirements
3. Determine safety programs and requirements for construction sites.
4. Prepare a written safety program for a worksite.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

APPENDIX D

CA-1a Form

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Institution: ___Barton Community College_____
Proposed Program: __Occupational Safety & Health_____

Part I. Anticipated Enrollment- 8		Implementation Year 2016		
Please state how many students/credit hours are expected during the initial year of the program?				
		Full-Time		Part-Time
A. Headcount:		8--		5--
Part II. Initial Budget		Implementation Year		
A. Faculty		Existing:	New:	Funding Source:
Full-time	#1	$40,000	$0	Current classes/OTIEC
Part-time/Adjunct	#4	$10,000	$30,000	Class revenue/current classes
		Amount		Funding Source
B. Equipment required for program		$1,000		OTIEC
C. Tools and/or supplies required for the program		$500		OTIEC
D. Instructional Supplies and Materials		$250		OTIEC
E. Facility requirements, including facility modifications and/or classroom renovations		$0		
F. Technology and/or Software		$0		
G. Other *(Please identify; add lines as required)*		0		
Total For Implementation Year		$81,750		Enrollments/OTIEC

IMPLEMENTATION COSTS

Part I. Program Enrollment		First Two Years		
Please state how many students/credit hours are expected during the initial year of the program?				
		Full-Time		Part-Time
A. Headcount:		10--		8--
Part II. Ongoing Program Costs		First Two Years		
A. Faculty		Existing:	New:	Funding Source:
Full-time	#1	$40,000	$0	Current enrollment/OTIEC/
Part-time	#4	$10,000	$30,000	Enrollment/OTIEC
		Amount		Funding Source

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B. Equipment required for program	$1000	
C. Tools and/or supplies required for the program	$500	
D. Instructional Supplies and Materials	$250	
E. Facility requirements, including facility modifications and/or classroom renovations	$0	
F. Technology and/or Software	$0	
G. Other *(Please identify; add lines as required)*	0	
Total For Implementation Year	81,750	

PROGRAM SUSTAINABILITY COSTS (First Two Years)

Please indicate any additional support and/or funding for the proposed program:

Full time position has been funded for 3 years (OSHA Education Center). Associate faculty funding will be supported by enrollment in the program (currently being offered). PETE and OSHA Education Center (card money). Equipment is on hand for all classes.

Submit the completed document to the following:

Director of Technical Programs & Curriculum
Kansas Board of Regents
1000 SW Jackson, Ste. 520
Topeka, KS 66612-1368

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

APPENDIX E

Approval Minutes/Advisory Board

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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AGENDA/MINUTES	
Team Name	Learning, Instruction and Curriculum Committee (LICC)
Date	Wednesday, February 13, 2015
Time	3:30 pm – 4:30 pm
Location	A-113/Go To Meeting

Facilitator	Penny Quinn	Recorder	Marsha Miller	

Team members								Present X Absent O
	Team 1		Team 2		Team 3		Additional	
O	Stephannie Goerl	X	Mike Cox	O	Deanna Heier	X	Lori Crowther	
X	Marsha Finley	X	Evelyn Parker	X	Brian Howe	X	Regina Casper	
O	Kim Brennan	X	Cheryl Lippert	X	Terri Mebane			
X	Randy Allen	X	Karen Kratzer	O	JR Love			
Guests								
X	Jason Eaves							
X	Mary Foley							
X	Rick Abel							

Action Items	Reporter	New/ Revised	Effective Semester
Roll Call	Marsha Miller	N/A	N/A
Executive Summary 1. Proposed new degree - Occupational Safety & Health (AAS) a. Draft curriculum guide 2. OSHA Certificates – KBOR approval **Approved**	Jason Eaves	New	Fall 2015
New OSHA syllabi (all will be core courses in proposed degree) 1. Fundamentals of Fire Prevention – Team 1 2. Fundamentals of OSHA Construction Industry -Team 2 3. Fundamentals of OSHA General Industry -Team 3 4. Practicum in Occupational Safety and Health -Team 1	Jason Eaves	New	Fall 2015

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

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5. Safety Training Methods for Adult Learners -Team 2 6. Work Practices Controls Safety Audits -Team 3 7. Workplace Accident Investigation -Team 3 **Approved**			
Syllabus Guiding Document: We did not receive enough email responses to approve. **Approved with changes. Effective as of 2/13/2015**	Penny Quinn	Revised	Immediately
Note: State focus on articulation: • **KBOR initiative on articulation** • **SCOPS initiative on articulation**	Penny Quinn	N/A	N/A
Note: Evelyn Parker is retiring May 15th. A replacement will need to be found for her chair.	Evelyn Parker	N/A	N/A

Absent: Kim Brennan, Deanna Heier, and Stephannie Goerl have no concerns. Voted in advance to approve should majority agree.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Regular Meeting of the Board of Trustees
Barton Community College
March 26, 2015

ATTENDANCE
Trustees Present: Leonard Bunselmeyer, Don Learned, Mike Johnson, Brett Middleton, Mike Minton and John Moshier.

Other Attendees: Elaine Simmons; Mary Foley; Kathy Kottas; Penny Quinn; Shelli Schmidt; Michelle Kaiser; Charles Perkins; Rob Dove; Marsha Miller; Richard Abel; Mark Dean; Dr. Gene George; Brandon Steinert; Joseph Harrington; Susan Thacker, Great Bend Tribune; President Carl Heilman; Amye Schneider; and via Go to Meeting, Bill Nash; Ashley Arnold; Ange Sullivan; Brenda Moreno; Mike Cox.

CALL TO ORDER AND PLEDGE OF ALLEGIANCE
Chairman Johnson called the meeting of the Board of Trustees of Barton County Community College to order at 4:00p.m. on March 26, 2015 In F-30 in the lower level of the Fine Arts Building. He then led in the Pledge of Allegiance.

INTRODUCTION OF GUESTS AND NEW EMPLOYEES There were no new employees for introduction.

PUBLIC COMMENT
Chairman Johnson invited public comments; there were none offered.

STRATEGIC PLANNING FRAMEWORK
Carl Heilman, President and Dr. Gene George presented to this overview.

Trustee Learned moved that the Board approve the strategic planning framework as *presented. The motion was seconded by Trustee Moshier.* Following discussion, the motion carried 6·0.

OSHA DEGREE AND CERTIFICATES
Bill Nash, Dean of Fort Riley Technical Education & Military Outreach Training presented these overviews.

Trustee Moshier moved that the Board approve the OSHA degree and certificates as *presented. The motion was seconded by Trustee Learned.* Following discussion, the motion carried 6-0.

FACULTY COUNCIL REPORT
Mike Cox, Faculty Council Chair gave this report.

MONITORING REPORT END #3: ACADEMIC ADVANCEMENT
Penny Quinn, Vice President of Instruction and Student Services facilitated this presentation.

TUITION AND FEES
Carl Heilman, President and Mark Dean, Dean of Administration facilitated this presentation.

Trustee Moshier moved that the Board approve an increase in tuition of $3 per credit hour for all student sectors for Fall FY16 (effective fall 201601) as *presented. The motion* was *seconded by Trustee Middleton.* Following discussion, the motion carried 6-0.

CONSENT AGENDA
The following was included in the consent agenda for consideration. a. Personnel
b. BOT Meeting Minutes of February 26, 2015

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Trustee Learned moved that the Board approve the consent agenda as presented. T/1e motion was seconded by Trustee Moshier. Following discussion, the motion carried 6-0.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Regular Meeting of the Board of Trustees
Barton Community College
March 26,2015

INCIDENTAL INFORMATION AND DISCUSSION ITEMS

The following reports were presented for the Board's Information:

a. President's Report of Monthly Activities
b. KACCT/Board Chair Report by Mike Johnson, Board Chair
   - June 12-13, 2015 Quarterly meeting
c. KBOR Update by Carl Heilman, President
d. Upcoming Events
e. Miscellaneous

EXECUTIVE SESSION

Chairman Johnson advised that an executive session would be necessary for the purpose of discussing non-elected personnel matters.

Trustee Moshier moved that the Board recess to executive session *for 15 minutes at 5:20p.m. to* discuss *non-elected personnel matters, in order to protect the privacy interests of the individuals to be discussed, to reconvene In Room F-30 in the Fine Arts Building at 5:35p.m. In compliance with this Act, no binding action will be taken in execulive* session. *The motion* was *seconded by Trustee Bunselmeyer.* Following discussion, the motion carried 6-0.

Open Session - The recessed session of the Board of Trustees of Barton County Community College reconvened at 5:35p.m. in the Seminar Room (F-30) of the Fine Arts Building. Chairman Johnson advised that matters pertaining to non-elected personnel matters were discussed and no action was taken.

PUBLIC COMMENT

Chairman Johnson again invited public comments. Clarification on the amount of tuition for in-county residents was given.

ADJOURNMENT

The meeting adjourned at 5:37 p.m.

Mike Johnson, Chairman

Recorded by Amye Schneider

Student Name:_____ **ID#:**_____ **Placement Scores: ___English ___Math ___Reading**

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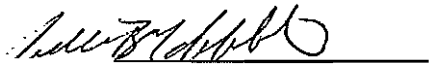

.vareti Middleton, Secretary

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Revised July 2010

Advisory Board

Safety and Health AAS Degree Advisory Board Members

	Name	Employer/ Job Title	Email	Phone #	Mailing Address
1	Ron Clasberry	Ft Riley Garrison Safety	ronald.clasberry.civ@mail.mil	(785)239- 8469	Bldg. 500 Huebner Rd. Fort Riley, KS 66442
2	Allen Vinyard	KS DOL (Safety Consultant)	allen.vinyard@dol.ks.gov	(785)296- 4386 x 2312	417 SW Jackson St. Topeka, KS 66603-3327
3	David Mc Donnell	OSHA (Compliane Assistance Specialist)	mcdonnell.david@dol.gov	(316)269- 6644 x 140	100 N. Broadway Ste 470 Wichita, KS 67202
4	Derrick Gage	Armour-Eckrich	Derrick.Gage@jmfg.com	(785) 762-3306	1920 Lacy Drive, Junction City, KS 66441
5	Mike Grier	EBY Construction CO INC	mgrier@ebycorp.com	316-268-3500	610 NORTH MAIN STE 500 WICHITA, KS 67203
6	Aaron Jantz	MAX JANTZ EXCAVATING INC & MJE LLC & JANTZ MANAGEMENT LLC	ajantz@maxjantzexcavating.com	620-846-2634	26503 11 RD MONTEZUMA, KS 67867
7	Terri Sanchez	KS DOL (Director)	Terri.Sanchez@dol.ks.gov	(785) 296- 4386 x 2310	417 SW Jackson St. Topeka, KS 66603-3327
8	Jennifer Diers (PTA)	Physical Capacity Profile (Occupational Performance Corporation)	jenniferd@pcpworks.com	(785)823- 0329 x 35	519 S. Santa Fe, Salina, KS 67401
9	Jean M McCauley	Midwest Construction Co., Inc. (Safety Manager/Secretary/Treasurer)	midwest1946@yahoo.com	785-364-3819	19830 Q Road Holton, KS 66436
10	Alicia Ochs	* Mark Borecky Construction Inc.	alicia@markboreckyconstruction.com	(620) 664- 7175	201 N. Van Buren, Hutchinson, KS 67501
11	Jeff Wineinger	Frito Lay (Topeka) Safety Person	Jeff.B.Wineinger@pepsico.com	(785) 862-1207	7215 Southwest Topeka Boulevard Topeka, KS
12	Jason Wiegert	Safety Person at Mars (Topeka)	jason.wiegert@effem.com	(785) 861-1800	100 Mars Boulevard, Topeka, KS 66619
13	Wally Mack	Enviornmental Scientist KDHE	wmack@kdheks.gov	(785) 296- 1614	1000 SW Jackson, Suite 320 Topeka, KS
14	Derrick Farmer	Olsson Associates	dfarmer@olssonassociates.com	(913) 515- 9000	KC metro area (Olathe or Overland Park)

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15	Darren Heyka	Vortex Valves	dheyka@vortexvalves.com	(785) 825-7177	1725 Vortex Avenue Salina, KS 67401
16	Kelly Gaer	KS DOT (Safety Coordinator)	kellyg@ksdot.org	(785) 296-4256	700 SW Harrison St., Topeka, KS 66603-3745
17	Marshall Greene	Great Plains Manufacturing	marshall.greene@greatplainsmfg.com	(785) 823-3276	1525 E. North St, Salina, KS 67402-5060
18	Pat Bush	Westar Electric (Manager, Labor Relations & Safety Compliance)	pat.bush@westarenergy.com	(785) 575-1941	4001 NW 14th St, Topeka, KS 66618
19	Pat Flynn	Pittsburg State University	pflynn@pittstate.edu	(620) 235-4638	1701 South Broadway, Pittsburg, KS 66762
20	Steve Reed	KASA Companies	sreed@kasacompanies.com	(785) 452-2360	418 East Ave B, Salina, KS 67401
21	Vaugn Mortimer	Exline Corporation (Manager of Industrial Health & Safety)	v.mortimer@exline-inc.com	1-800-255-0111	3256 East Country Club Rd., Salina, KS 67402-1487
22	Yvonne Shea	Philips Lighting (Health and Safety Manager)	yvonne.shea@philips.com	(785) 826-3500	3861 S 9th St, Salina, KS 67401
23	Michelle Kolinek	Grainger	Michelle.Kolinek@grainger.com	847-753-5412	1657 Shermer Rd, Northbrook, IL 60062
24	Jean Thompson	DUSTROL INC	jthompson@dustrol.com	316-536-2262	1200 E MAIN (P O BOX 309) TOWANDA, KS 67144-0309

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Hazardous Materials & Emergency Services Training Institute
BARTON COMMUNITY COLLEGE
100 Continental Ave., Grandview Plaza, KS 66441 Ph: 785-238-8550 Fax: 785-238-8593

OSH Advisory Committee Meeting
Grandview Plaza, KS
Minutes Notes
27 March 2015 11:00 am

Attendees: Bill Nash, John Truitt, Brandon Green, Lindsay Holmes, Allen Vinyard, Walter (Wally) Mack, Ron Clasberry, Kelly Gaer , Remote Attendees: Yvonne Shea, Michelle Kolinek, Jonathan Grebb, Steve Reed, Dick Heitman

Recorder: Karla Givens

Handouts provided to attendees: Folder to include: Occupational Safety & Health Degree Template, Certified Safety & Health Official (CSHO) Construction Industry Certificate Template, Certified Safety & Health Official (CSHO) General Industry Certificate Template, Specialist in Safety & Health (SSH) Construction Industry Certificate Template, Specialist in Safety & Health (SSH) General Industry Certificate Template, OSHA Education 2015 OSHA & EMSM Courses handbook and Brandon Green's business card.

Introductions

Bill-

Bill stated, we will get started with the meeting. We have several people at different locations. We will go around the table and introduce ourselves. Bill said he would start. Bill is the Fort Riley Dean of Technical & Military Outreach. The purpose of this meeting is to introduce a two-year Occupational Safety & Health degree and professional certificates for submittal to the State (KBOR) for approval. The process is to submit application, then it goes to HLC out of Chicago, the accrediting body. There are also several industry certifications, CSHO and SSH. KBOR and Perkins require Barton Community College to have professionals in the field to help tweak the curriculum, serve as advisory board member, provide internships, mentor or instruct classes. The advisory board is required to meet two times a year with at least one of those meetings being face-to-face (F2F).

This will be the first two-year degree in OSH in the state of Kansas. Pittsburg State University (PSU) has a BS degree in Environmental and Safety Management which doesn't include the OSHA professional Certifications. The intent once our two year degree is approved is to establish a 2+2 degree with Pittsburg State. We currently have one with Kansas State University that would include the OSH degree once the degree is approved by KBOR.

Pittsburg State University is currently a HOST site for Midwest OSHA Education Center, Barton Community College allowing them to conduct some of the OSHA classes.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Let's start the introductions with the distance attendees, Jonathan:

Jonathan-
He stated, he is the District Sales Manager for Granger. He has been at Granger for five years.

Michelle-
Bill ask, Jonathan and Michele where are you located at? and she replied Chicago. Michelle said she is the Barton Community College Representative Account Manager for Granger. She works under Jonathan.

Steve-
Steve works for KASA in Salina, Kansas. He is Vice President of Safety and Engineering. He said he recruits and does training also, safety control and design. He said he started with the company in 1987.

Yvonne-She was hooked up but had her equipment muted. She works for Philips Lighting out of Salina, Kansas.

Bill-
Let's start with Allen (attendees in physical attendance).

Allen-
He is the Kansas Department of Labor, Assistant Director of Safety and Health, Instruct out of Topeka, Kansas. He does private and public consulting.

Ron-
Ron said, he is with the Fort Riley Garrison Safety Office since 2004. I have also been an Instructor for Barton Community College (BCC) for five or six years.

Kelly-
He said, he works for KDOT out of Topeka for 14 years. He was the first graduate out of the Hazardous Materials Degree at BCC.

David-
Davis stated, he is the Compliance Officer for OSHA, Wichita area OSHA.

Carol-
She stated, she is the Administrative Assistant at BCC. Carol has worked for the college for 16 years.

John-
He stated, he is the Executive Director of Technical and Military Programs for BCC for 19 years.

Wally-
He said, he is the Geologist and Safety Officer for KDHE/BWM since 1999 out of Topeka, Kansas.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Brandon-
He stated, he is the OSHA Program Coordinator at BCC and has worked for Barton for three years.

Lindsay-
Lindsay is the Program Coordinator and Advisor for BCC and has worked for the college for seven years.

Karla-
She is the Divisional Administrative Assistant for BCC for four years.

Bill-
Bill noted not to forget, Dick, one of our distant attendees.

Dick-
He is the Trainer and Safety Advisor for ONEOK for 12 years.

Associate of Applied Science

Bill-
Bill stated, in front of you is a folder and distant attendees you should have had a chance before the meeting to look at the information.
The Associate of Applied Science (AAS) is pretty much the same as other colleges. Fifteen credit hours: Five, three credit hours to equal 15 credits. Usually, BCC has 18 hours. We topically add an additional class.
National Institute Occupational Safety and Health (NIOSH) book showed the study that polled companies over 200 employees and companies under 200 and asked the companies to identify: Positions, hires in the future, provide shortfalls, what classes would be needed in OSH?-that is why the major requirements were but into the program.

Major Requirements

Bill-
Bill said, the requirements do not get deep into regulations. If a student has taken an OSHA 510 or 511 BCC would give the student credit for those classes.
Classes are available online except for the OSHA numbered classes.
The first four classes are HZMT classes.
The OSHA 1930-Practicum in Occupational Safety & Health has the practicum built into the class. The students will learn through experience. BCC gets adults, not young adults. These students do not have the time to do an internship because most of them have full-time jobs. BCC will partner with companies to give practicum experience to students through field experience. An instructor will work with the students to give grades and access final product. BCC has several business that would like to participate. The students would take the OSHA 1930-Practicum in Occupational Safety & Health class at the end of the degree.
The OSHA 1932-Work Practices Control/Safety Audits class is a job analysis class.
The OSHA 1931-Safety Training Methods for Adult Learners class is a class focusing on training that most business require their employees to have because it gives them skills. This class models the National Environmental Safety and Health Trainers Association certification, Certified Environmental Safety and Health Trainer, CET® program curriculum.

David asked Bill-

Does BCC offer the student the option of taking Organic Chemistry?

Bill-
In respond to the question, Bill replied, yes we do. Lindsay and Brandon will be able to advice students about the degree program. Students can take Organic Chemistry or Algebra through BCC it would count for the degree (Math) and it would transfer most other colleges. BCC has a 2+2 program with Kansas State University.

Ron asked Bill-
How long does the approval process take?

Bill-
Bill responded, that the KBOR process can take three months. He has 160 pages. He will submit next week. April 6th it will be submitted to the Board of Regents, the Technical Education Authority will review it. Then he goes to Topeka to defend it. Then it will go to the NCA Accreditation for Higher Learning. January 1, 2016 could be the kick-off but maybe as early as October 2015 because BCC Fort Riley and online works in cycles.

SSH and CSHO Certificates
Bill-
Bill stated, the SSH and CSHO certificates are recognized nationally and being offered in the state of Kansas for the first time through Barton. The General education classes 18 credits, plus 46 credits equals 64 credits for the degree.

Jonathan asked Bill-
Are all classes offered online?

Bill-
Bill stated, that all classes under General Education and Major Requirements classes can be done online. OSHA numbered (CERT) courses (part of SSH/CHSO) cannot be offered online per OSHA but students can complete the degree by taking optional classes online or take the OHSA Cert classes at any OSHA Education Center.

Jonathan decision with Bill-
Jonathan stated, from his stand point that his employees do not need a Bachelor's degree in Safety.

Bill responded, that BLS, NIOSH as well as several other agencies conduct surveys or studies but usually target jobs desiring a BS degree. In BLS and NIOSH reports education is listed as high school, high school plus and then Bachelor degree. An Associate degree is not even listed.

Larger companies with at least 200 employees tend to want someone with a BS degree but many hire those with 2 year or someone who has worked in the field for many years and has some education or certifications.

Ron-
Ron commented, his two-year degree from BCC opened up the door to go on to a Bachelor's degree-2+2 program and then on to a Masters, which gave him a position at Ft Riley as a Safety Officer.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Bill-
Bill stated, moving forward, tweaks or changes to the curriculum from the practitioners in the field. Changes can be made as needed. We need safety professionals to share the needs and concerns. If BCC is doing good say that too.

Brandon-
Brandon stated he received an email from Great Plains Manufacturing Company about capturing someone with no education but has work experience.

Bill-
Bill responded, that the employee can put together a work portfolio. CSU does this. This takes a lot of time for the employee to put a portfolio together and then for the academic side to review. The college charges the student about the same amount of money as taking the classes. BCC can explore this option.

David-
The Practicum/ Internship will have more opportunities with Allen's business than his.

Allen-
Allen responded, consultation is private. This is the problem with bringing another person into the consultation as a student in an intern setting. Confidentiality is a liability issue.

Bill-
Bill stated, would like students to get involved to review written programs for companies as well as assist with the development and conducting training.. BCC does Quantitative and Qualitative Fit Testing so students would be able to also help with fit testing as well as PPE selection and Job hazard analysis, JHA. Hoping to offer lots of opportunities for students as well as help employers.

Allen-
Have you talked with Johnson Community College (JCC)? There last hurdle did not go through KBOR. To see why?

Bill-
Bill stated, it is somewhat different with BCC because we are the first and only OSHA Training Institute Education Center in the state of Kansas. The college already provides OSHA and safety classes as well as OSHA's HAZWOPER classes that are conducted for KDHE, KDOT, DOD as well as business and industry throughout the state. . BCC is also better able to cover the state with campuses located at Fort Leavenworth, Fort Riley/Junction city and Great bend. Also with Hutchinson CC and Pittsburg State being OSHA HOST sites for Barton classes are available almost anywhere in the state.

Go through the template. If you need further looking at, send Brandon an email and he will send you a copy of the syllabi. If the question is about an HZMT class refer to Lindsay.

Next Advisory Board Meeting
Bill-

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Bill stated, the next meeting can be done by email, distant, F2F or a combination.

David-
David stated, June and F2F is better. Fridays work for him.

Brandon-
Brandon stated, this would give everyone time to look over everything.

Brandon-
Brandon to David, could Non-Disclosure forms be signed by the students?

David-
David responded, this could be a big problem for field work; easier in the office setting. Great opportunities.

Allen-
Allen stated, he has a Sharp Co to take students on a field trip.

David-
David said, field trips to businesses and government industries would be better than a classroom setting.

Closing

Bill-
Bill said, the final thing: Are there currently any issues with the curriculum that need to be addressed prior to submission to KBOR/HLC with the understanding that the board will provide continue to provide recommendations on curriculum as needed. If none currently, is there a consensus from the members to move forward with the degree and industry certificates?

Steve-
Steve said, proceed.

Everyone said they were in agreement.

Ron-
Ron asked, need any help building classes?

Bill
Bill stated, Brandon and John will be sending out emails to see who is interested in helping.
Brandon will contact everyone next week about the next meeting and the status of the program within the process. If anyone would like to go to Topeka (KBOR) with Bill, or you can call in with comments, Bill will review the process and provide guidance and directions for those wanting to participate or listen in.

Anything else. Appreciate everyone attending and see you in June.
(Meeting adjourned.)

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Would anyone like a tour of our facility?

Several will participate in tour.

KG

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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APPENDIX F

OSHA Instructor Qualifications

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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OSHA Training Institute (OTI) Education Centers
Revised Instructor Minimum Qualifications (Revised June 1, 2014)

Listed below are the minimum qualifications that all qualified instructors must meet *before* they can teach an OTI Education Center course. OTI Education Centers may add additional requirements as required by their institution. OTI Education Centers are not authorized to waive or grant "equivalent credit" for these requirements.

1. A *Qualified Instructor* is defined as an instructor who teaches more than 10% of the course contact hours.
2. A *Guest Instructor* is defined as an instructor who teaches 10% or less of the course contact hours.

Please note that guest instructors may not comprise more than 20% of the course contact hours for any given course.
OTI Education Centers are required to document that each Qualified Instructor meets the minimum requirements listed below. OTI Education Centers must provide this documentation to OSHA upon request.

Criteria	Description	Verification
Work experience related to the subject(s) to be taught or within the industry	Instructor must demonstrate work experience of at least three years within the subject area for a technical course or five years of work experience within the industry for an industry-specific course such as construction, maritime, or oil and gas. This experience must be within the last ten years. Experience may include relevant academic work experience, or industry association work experience sufficient to demonstrate a working knowledge of the industry and to yield a quality course delivery. Examples of work experience may include, but are not limited to, the following: ▪ Inspect or evaluate workplace environments, equipment, machinery, and safety equipment to identify and correct potential hazards and to ensure safety regulation compliance ▪ Investigate workplace accidents, injuries, and/or occupational diseases to	Resume

Criteria	Description	Verification
Work experience related to the subject(s) to be taught or within the industry.	determine causes and preventive measures ▪ Report or review findings from accident investigations, facilities inspections, construction site inspections, or industrial hygiene sampling results ▪ Develop, review, and implement safety and health programs to ensure safety regulation compliance and worker protections ▪ Develop or maintain industrial hygiene programs, such as noise surveys, air monitoring, or ventilation surveys ▪ Develop, evaluate, and conduct safety and health training or education programs for workers and management ▪ Conduct Job Hazard Analysis to determine potential workplace hazards and corrective action	Resume
Occupational safety and health experience	Instructor must demonstrate occupational safety and health experience of at least three years within the industry or subject area. This experience must be within the last ten years. Two years may be waived with any of the following: CIH, CSP, Master's degree or PhD in an occupational safety and health field.	Resume for experience Copy of certification(s) Diploma or transcript
Instructional experience for teaching adults	Instructor must demonstrate the ability to effectively deliver training and education to adults. Examples may include: ▪ Demonstration of two years' experience teaching adults in a training/academic environment, or ▪ Documented observation and evaluation of the instructor as capable of utilizing effective adult training techniques	Resume Documented observation and evaluation results

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Criteria	Description	Verification
Demonstrated ability to achieve OTI Education Center course learning objectives	Instructor must have the ability to achieve the learning objectives for the respective OTI Education Center course being delivered. This must include both of the following: ▪ Demonstration of experience teaching subject materials ▪ Documented observation and evaluation of the instructor as capable of meeting course objectives	Resume for experience Documented observation and evaluation results
Professional development in occupational safety and health subject materials	Instructor must maintain current knowledge in the subject material being presented. Outreach trainer courses and the 10- and 30-hour Outreach Training Program classes are not acceptable for maintaining knowledge in subject materials. Maintaining current knowledge includes completion of the following every five years. Occupational safety and health training course(s) reflecting a minimum of 30 hours. This cannot include training in which the instructor delivers all or part of the course.	Course completion certificate or transcript
Professional development in teaching adults	Instructor must maintain current knowledge in the subject area of teaching adults. Maintaining current knowledge includes completion of the following every five years. Training course(s) directly related to teaching adults reflecting a minimum of seven hours. This cannot include training in which the instructor delivers all or part of the course. Examples include, but are not limited to, the following: ▪ Adult learning techniques ▪ Needs assessments ▪ Curriculum development ▪ Classroom technology ▪ Hands-on techniques ▪ Handling difficult students ▪ Outreach or update trainer course (one of these courses may count once towards fulfilling this requirement)	Course completion certificate or transcript

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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APPENDIX G

Business/Student Survey

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Good Afternoon Everyone!

Barton Community College is seeking Kansas Board of Regents approval of an AAS degree in Occupational Safety and Health. KBOR requires we show a demand for the program. We currently have over 200 students who have taken OSHA classes with us this past year with at least 14 of those students requesting to complete a certification and degree. We also have provided data from the BLS occupational projections both from Kansas and the federal reports however they only list High School or 4 year programs not 2 year programs. The Westat NIOSH study also used the same criteria. KBOR has requested we provide data that supports the need for a 2 year program. We have had many employers state they wanted/needed 2 year graduates but we don't have a report to back this up. To address this we are soliciting your help by requesting a response to the following questions.

Is there a need for someone with this degree?
Would you as an employer hire someone with an AAS in Occupational Safety and Health such as the one being proposed by Barton?
Would the starting salary be between $38,000 - $48,000 per year? If not what range?

Please provide your comments and name of company.

Respectfully,

Brandon Green

OSHA Program Coordinator
Midwest OSHA Education Center
Barton Community College
100 Continental Ave.
Grandview Plaza, KS 66441
(785) 238-8550 ext. 735
855-509-3376
www.bartonsafety.com

From: "**Koehn, Jeff A**" <Jeff.Koehn@worthingtonindustries.com>
Date: Wed, Jul 8, 2015 at 7:26 AM -0700
Subject: RE: Data for KBOR approval of OSH degree
To: "Green, Brandon" <greenb@bartonccc.edu>

Is there a need for someone with this degree? Absolutely
Would you as an employer hire someone with an AAS in Occupational Safety and Health such as the one being proposed by Barton? The degree would definitely be a plus

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Would the starting salary be between $38,000 - $48,000 per year? If not what range? Honestly, with a 2 year degree I could see a starting salary close to 50-55k

Please provide your comments and name of company.
Brandon – this program would be great, interested in class hours, days, etc.

JEFF KOEHN
ENVIRONMENTAL, HEALTH & SAFETY | WI – GARDEN CITY
O 620.765.5332 | F 620.275.7464
WorthingtonIndustries.com | NYSE:WOR

WORTHINGTON INDUSTRIES

From: Marshall Greene [mailto:marshall.greene@greatplainsmfg.com]
Sent: Wednesday, July 08, 2015 7:49 AM
To: Green, Brandon
Subject: RE: Data for KBOR approval of OSH degree

Brandon,

Having devoted almost 30 years to Occupational Safety and Health and Emergency Management, it is my firm conviction that anyone entering into this field needs a basic understanding of OSHA and OSHA Standards in order to grasp the complexities of this discipline. A degree program of this nature would provide that basic understanding and help prepare the graduate for entry into the work force.

Great Plains would certainly be open to hiring someone with a degree in Occupational Safety and Health, as needs arise, after an interview process to determine suitability to the position.

A starting salary of $38,000 to $48,000 would be adequate to attract a graduate into the job and Great Plains would support that, if the need arose for new or additional safety staff.

Marshall Greene
Safety Director
Great Plains Mfg., Inc.
Ph. 785.823.9556 Ext. 2226

From: Smith, Roger {FLNA} <roger.smith3@pepsico.com>
Sent: Wednesday, July 8, 2015 6:25 AM

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Subject: FW: Data for KBOR approval of OSH degree
To: Green, Brandon <greenb@bartonccc.edu>

Brandon;
If we had an open position for a Health and Safety Role, we would consider someone with an AAS in Occupational Safety.

Thanks

Roger R. Smith CSP
Health & Safety BUL
Frito Lay
4236 SW Kirklawn
Topeka, KS 66609
Phone
Cell: 219-712-8159
Office: 785-338-4243
roger.smith3@pepsico.com

BE SAFE!!

From: Matt Vogler [mailto:mvogler@frontieraginc.com]
Sent: Tuesday, July 07, 2015 2:19 PM
To: Green, Brandon
Subject: RE: Data for KBOR approval of OSH degree

Brandon,

I believe that there is a need for this program. I am currently in contact with Eastern Kentucky University regarding their online Bachelors in Occupational Safety and Health. A local alternative start that process would be very appealing.

Being a former Compliance Investigator with the Kansas Department of Agriculture, I know that regulatory pressure along with good business practices is causing most businesses to have an increased need for a person or team of safety professionals. Since 2006, my company has gone from one operations manager, who also happen to be the safety representative for the company, to three dedicated positions managing all safety and

compliance issues. In the past, our safety program was supplemented by consultants. Due to the growth of our company we currently manage our entire safety program in-house. Undoubtedly we will have the need for additional safety professionals as part of our team in the future.

During the last four years, while working for KDA, I observed this same trend with most of the businesses that I regulated.

A candidate that may have the skills for this job would start at around $40,000, with the AAS around $50,000 and a BS or AAS +experience around $60,000.

Good luck,

Matt Vogler
Safety and Compliance

FRONTIER AG INC
Delivering Quality Solutions

Phone: 785-443-4470
mvogler@frontieraginc.com

WWW.FRONTIERAGINC.COM

From: Steve Reed [mailto:sreed@kasacompanies.com]
Sent: Tuesday, July 07, 2015 2:14 PM
To: Green, Brandon
Subject: RE: Data for KBOR approval of OSH degree

Brandon, Please see comments below to the following questions:

Is there a need for someone with this degree? Yes. As the director of the safety and health program at Kasa, I can see the need for assistance with many tasks associated with safety and health. Some tasks might include OSHA/NFPA/IEEE/ANSI/NIOSH code review, internal program review and development, job hazard analysis, risk assessment, safety committee interaction, KDoL interaction, SDS research with the new GHS standard, safety and health monitoring, KDHE compliance, and many others.

Would you as an employer hire someone with an AAS in Occupational Safety and Health such as the one being proposed by Barton? Yes. These credentials would be very helpful.

Would the starting salary be between $38,000 - $48,000 per year? If not what range? Yes, this is the starting range.

Please contact me with questions.
Steve Reed
Kasa Companies
785-452-2360
From: "**Brandon Schuessler**" <Brandon.schuessler@eldorado-bus.com>
Date: Fri, Jul 10, 2015 at 1:01 PM -0700
Subject: RE: Data for KBOR approval of OSH degree
To: "Green, Brandon" <greenb@bartonccc.edu>

Brandon,

There is a need for someone with this degree. It is very difficult to find qualified candidates for this type of position. Our starting salary would fit within the range below.

If you need any additional information please let me know.

Thanks,

Brandon Schuessler
Director of Human Resources
ElDorado National - Kansas
785.827.1033 x417
785-493-2045 fax
brandon.schuessler@eldorado-bus.com

From: Terri Sanchez [mailto:Terri.Sanchez@dol.ks.gov]
Sent: Monday, July 13, 2015 8:35 AM
To: Green, Brandon
Subject: RE: Data for KBOR approval of OSH degree

Brandon,
Kansas Dept of Labor, Division of Industrial Safety and Health gives high priority to individuals with an AAS or BS degree in Occupational Safety and Health. The starting salary for our new hires is $41,000/year.

Terri S. Sanchez

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Director, Div of Industrial Safety & Health
KS Dept of Labor
(785)296-4386, ext 2310
(785)438-7950 (cell)

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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CLASSIFICATION: UNCLASSIFIED

Brandon,

There is defiantly a need. As our is Soldiers going through their transition to the civilian life the Department of Defense Safety Career field (CP12) is looking for qualified Occupational Safety and Health Specialist. The goal of the Army Safety and Occupational Health Career Program (CP-12) is to develop a professional group of Department of the Army civilians whose focus is to assist commanders and directors to protect the force through risk management to enhance mission accomplishment. To do this, there must be a group of professionals who at the appropriate locations, assist commanders and staffs in protecting assets and supporting Army force protection requirements.

Effective civilian Safety and Occupational Health Management professionals are critical to ensuring the Army's readiness through protection of Army personnel, facilities, and materiel, and compliance with safety and occupational health statutes. The CP-12 was established to meet that requirement.

By Barton Community College offering an AAS degree in Occupational Safety and Health this will open employment opportunities which will allow Soldiers to be hired all over the World.

The starting pay $34K (GS-7) - 61K (GS-12) a year.

V/R

Mr. Ronald Clasberry (Safety Ron)
Deputy Garrison Safety Manager
CSHO, ASHM, CSMP, CP12
Building 200, Room 107C
Fort Riley, Kansas
Com: 785-240-4748
DSN: 520-4748
Cell BB: 785-226-9060
FAX: 785-239-0741
Email: ronald.clasberry.civ@mail.mil

"Secure Yourself First" - Be Aware of your surroundings and the risks involved, and then taking actions to protect yourself!!!
-----Original Message-----

From: Black, Grant J CW2 USARMY 1 ID CAVN BDE (US) [mailto:grant.j.black.mil@mail.mil]
Sent: Thursday, July 16, 2015 9:42 AM
To: Green, Brandon
Subject: RE: Data for Proposed AAS Degree

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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1. Beings that having an AAS in Occupational Safety and Health is a stepping stone for other certifications, and continuing education requirements, yes, there is a need for people with this degree.
2. In the safety job market, an AAS in Occupational Safety and Health from an OTI would be important. It is standardized by both an education governing body, and OSHA itself. So you will know what you are getting in the final product.
3. The second it is available, if I am still here, I will be enrolling.

From: Ron Meziere [mailto:rmeziere@alogcorp.com]
Sent: Thursday, July 16, 2015 9:37 AM
To: Green, Brandon
Subject: RE: Data for Proposed AAS Degree

Brandon,
I do believe that the AAS would be beneficial with in our surrounding community, and help students that are just starting or getting ready to start their safety careers in the safety field.
There are so many safety personnel that are beginning their careers with little or no safety back ground and this could only help them in their endeavors.

As for myself I do believe that I would pursue the AAS if Barton would offer it.

Ron

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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Barton Community College
Student Feedback (Consolidated)

Do you think there is a need for Barton to offer a degree in Occupational Safety & Health?
0 No 15 Yes
2 Comments: Beneficial to students to have an Associates and a Bachelor Degree.
There are no educational centers in this area that offers this program for students.

Do you work in the safety field?
6 No 9 Yes
1-Senior Safety NCO; 2-Military; 1-Instructor; 1-Safety Specialist and Consultant/Inspector at a Metal Manufacturing Plant; 10- No Response

Would you be interested in completing the degree if offered?
4 No 8 Yes 1 Undecided 2 No Response
3 Comments: Student will continue to improve knowledge and future career opportunities.
Student is interested in ASP or CSP.
Student has a Bachelors in Environmental Health and Safety Management. Looking to work in Occupational Safety & Health after military.

How many years of experience do you have?
0 to 10 years- 5 11 to 20 years – 4 21 to 30 years – 2 40+ years - 1
Comments: 2-Military

Would the SSH or CHSO certificates benefit your career progression?
2 No 13 Yes
3 Comments: Any safety training is beneficial in the manufacturing industry, to the student.
Yes, if student chooses a safety related career.
Any certificate will help the student progress in their career and in knowledge of the safety field. If possible, the student would like to achieve at least one of the certificates.

If interested in the degree program how would you prefer the classes to be offered? (Can choose more than one.)
Online – 5 Resident – 3 Both - 12
3 Comments: Hybrid classes are a good learning environment for students.
Could be useful to some students.
The student has considered an online degree from CSU. If Barton offered an online program the student would much rather get it from Barton.

Two OSHA classes (15 students) where surveyed to obtain the information.
OSHA- Machine Guarding

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

Fall Protection

APPENDIX H

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading

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National Partnership
PETE
for Environmental Technology Education

584 Main Street
South Portland, Maine 04106

tel: 207.771.9020
fax: 207.771.9028
email: natlpete@maine.rr.com
www.nationalpete.org

July 30th 2015

The National Partnership for Environmental Technology Education has received a one million one hundred fifty one thousand seventy four dollar ($1,151,074.00) one year grant from the National Institute for Environmental Health Sciences funding the Community College Consortium for Health and Safety Training supporting Community College based *Hazardous Waste Worker Training.* This award is the first year of a five year cycle of grants that will ultimately grant PETE $6,232,481.00 to support community college based hazardous waste worker and emergency response training.

The National Partnership for Environmental Technology Education, ME, in partnership with the Hazardous Materials Training and Research Institute, IA, submitted the proposal on behalf of the Community College Consortium for Health and Safety Training (CCCHST) to provide convenient, memorable, and cost-effective training for hazardous materials and waste workers engaged in waste treatment, storage and disposal, hazardous waste generation, clean up and remedial action, emergency response and hazardous materials transportation. CCCHST membership consists of community colleges partnered with business and industry, universities, and community-based organizations offering a consistent and quality response to the national training need for hazardous waste workers and emergency response personnel.

The goal of CCCHST is to make NIEHS-approved worker training nationally available through over 100 CCCHST organizations, whose instructors are prepared through a Train-the-Trainer model program, offering hazardous materials instruction in nearly all states of the nation. CCCHST instructors, prepared and supported by PETE and HMTRI, will annually train a minimum 30,000 students, workers, and supervisors to protect themselves and their communities from exposure to hazardous materials encountered during hazardous waste site cleanup, brownfields redevelopment, transportation of hazardous materials, and response to spills and releases of hazardous materials, offering a minimum 300,000 contact hours of instruction each year. New to the grant cycle 2015-20, PETE will add two new missions to its core Train-the-Trainer model program.

(1) Veterans Haz Mat Worker Training. PETE, partnering with Barton Community College, Grandview Plaza, KS will add a direct worker training program for Army personnel transitioning to the public sector. Annually, 200 US Army personnel leaving the service from Fort Riley (KS), Fort Leonard Wood (MO), Fort Sill (OK), Fort Carson (CO) will participate in 76 hours of training, leading to certificates in 40-hr HazWoper, 26-hr OSHA 2015 Haz Mat, and OSHA 10-hr General Industry.

(2) Haz Mat Disaster Preparedness Training Program. Partnering with Indian River State College, Fort Pierce, FL. PETE will provide a six-day Haz Mat Disaster Preparedness Train-the-Trainer program for 20

instructors annually, and in subsequent years, a Refresher for trainers who serve a wide variety of students. They include Boat People SOS instructors teaching Vietnamese in the disaster-prone areas of the Gulf; CERT High School and AmeriCorps instructors preparing disadvantaged alternative high school students and CCCHST instructors who teach our first responders and industrial workers.

The PETE college network represents more than 400 community colleges nationwide including Tribal and minority colleges. PETE is an Affiliated Council of the American Association of Community Colleges and has a long history administering major national and international grants with the Environmental Protection Agency, National Science Foundation, U.S. Department of Energy, U.S. Department of Labor, the U.S. Department of State and the Department of Homeland Security/FEMA.

For more information contact Kirk Laflin, PETE Executive Director, Douglas Feil or Pat Berntsen co PIs for the grant.

Student Name:_____ ID#:_____ Placement Scores: ___English ___Math ___Reading