BEAUFORT COUNTY COMMUNITY COLLEGE
Personal Protective Equipment (PPE) Procedures

A. General Procedures

1. Personal protective equipment must be worn, as required, for each job in all operations, where there is an exposure to hazardous conditions. This exposure is determined by a personal protective equipment hazard assessment of the workplace by the supervisor. Equipment selection and wearing requirements are determined from this assessment.
2. Safety glasses, goggles, or face shields will be worn in those areas where there is a reasonable probability of injury to the eye from flying particles, molten metal, chemicals/acids/caustics, light radiation, or other eye hazards.
3. Head protection (hard hats) will be worn for protection from falling objects or work near energized electrical contact.
4. Foot protection will be worn where there is danger to the foot from falling/rolling objects, objects piercing the sole, or electrical hazards.
5. Hand protection is required when hands could be exposed to severe cuts/abrasions, chemical/thermal burns, or chemical/bodily fluid absorption.
6. Appropriate gloves, aprons, goggles, and boots will be used when necessary for protection against acids, other chemicals, or bodily fluids, which could injure employees.
7. Respiratory protection equipment is needed for protection against toxic and hazardous vapors/fumes/dusts. Only MSHA/NIOSH approved respiratory equipment will be used.
8. The use of safety harnesses and lanyards is required when working more than four feet above a floor or ground level, and there are no guardrails or other form of fall protection, and on certain suspended scaffolds. Employees/contractors shall be tied off during construction of scaffolds or when there is no acceptable handrail.
9. Acceptable handrail, midrail, toe boards, & posts –
    a) Top handrails must be capable of accepting a minimum force of 200 pounds in any direction without failure.
    b) Top rail 42” high from floor. If steel cable is used, middle of the cable cannot deflect to no lower than 39”.
    c) If handrail is made of lumber, 2 X 4s minimum must be used as the handrail.
    d) Posts must be a minimum of 4 feet apart.
    e) Midrails must be placed in the middle between the handrail and the floor. Example, if handrail is 42” above the floor, then midrail must be 21” above the floor.
    f) Toe boards will be used to protect personnel below the scaffold from items falling from the scaffold to a lower level. Toe boards will be made of 2 X 4 lumber.
    g) If the decision is made to NOT use toe boards, then the area beneath the scaffold SHALL be barricaded off with red danger tape, so that no one will enter the taped area.
10. Each employee will be secured/tied off to a separate safety lanyard on a rated anchor point, so that the employee cannot fall more than four feet.

11. Anchor points shall be rated at 5000 pounds of shock load force. Only one person shall be tied off to one anchor, unless the anchor point is rated for 5000 pounds **per person.**
12. When working on flat roofs that do not have a parapet wall on the roof that is a minimum of 42" in height, the following are acceptable methods of fall protection:

    a) A flag system that restricts access to the roof edge to no closer than 36"
    b) A safety line that can hold 5000 pounds per person tied off to it. If the employee/contractor must go past this safety line to the roof edge, then all must be tied off.

B. Eye Protection- safety glasses, face shields, welding shields

Any BCCC employee and/or student operating the following equipment or performing the following procedure **ANY TIME** will be required to wear the prescribed equipment as detailed in these procedures:

1. Chain saw
2. Circular saw, table saw, band saw, router, radial arm saw, miter saw
3. Powered trimmers, pruners, hedge trimmers, blowers, edgers
4. Mowers – all types
5. Grinding machines of all types
6. Welders – all types; proper lens shade for welding
7. Oxygen/acetylene equipment-proper lens shade for cutting, heating
8. Propane torch
9. Sprayers – all types
10. Pressure washers
11. Sander
12. Planer
13. Mulching machine
14. Chemical mixing
15. Lathe and milling machines
16. Drill press and hand held drilling equipment
17. Parts cleaning machine
18. Air compressor & all air attachments used
19. Cleaning oven in cafeteria
20. Specialized precision machines – all types
21. Changing toner in printers, copiers, faxes
22. Changing filters on heating and air conditioning equipment
23. Print shop equipment
24. Hammers and impact equipment – all types

C. Hearing Protection – ear plugs, ear muffs

Any BCCC employee and/or student operating the following equipment or performing any of the following procedures **AT ANY TIME** will be required to wear either ear plugs or ear muffs.

1. Chain saw
2. Circular saw, table saw, band saw, router, radial arm saw, miter saw
3. Weed eater and hedge trimmer – fuel powered
4. Mowers – all types
5. Blowers
6. Mulching machine
7. Air compressor
8. Hammering (140 dBA slow response maximum) and any other equipment or procedure that causes impact or quick, impulsive noise
9. Tractor or any other type of heavy equipment– open cab
10. Printing presses and cutters
11. Outboard motors
12. Any other type of motorized or electric powered equipment found to emit 85 or higher decibels of sound measured on a dosimeter set on a sound level dBA slow response (per NCDOL standard 1910.95 (2))

NOTE: The written Occupational Noise Program is in a separate program. Audiometric testing will be make available at college expense to any BCCC employee found to meet or exceed exposure levels of 85 dBA, measured on slow response for an 8 hour duration. Disposable ear plugs are available at the maintenance shop building.

D. Hand Protection – gloves, all types

Any BCCC employee operating the following items of equipment or performing the following procedures AT ANY TIME will be required to wear gloves designed and made of materials that will offer the most protection for the specific type of equipment or task being done.

1. Welding machines
2. Oxygen/acetylene equipment
3. Propane torch
4. Chemical mixing – instruction and maintenance purposes, custodial, grounds maintenance, print shop, continuing education classes.
5. Parts cleaning machine
6. Oven cleaning – cafeteria
7. Specialized precision machines
8. Chain saw
9. Mowers or all types
10. Any equipment that causes extreme or continuous vibration
11. Medical emergencies – universal precautions
12. Toner
13. Copier, printer, fax machines
14. HVAC filter replacements
15. Handling metal, wood, or moving equipment

NOTE: it is the responsibility of the supervisor or department dean, to insure that the proper hand protection is secured and made available to affected employees and students in his/her department. All employees and students will further comply with safety guidelines found in his/her department Safety Data Sheets (SDSs) regarding hand protection during chemical mixing and handling. Disposable gloves will be available in department stock rooms.

E. Respiratory Protection – respirators, dust masks.

Any BCCC employee and/or student must read and follow safety instruction on the Safety Data Sheet before using any chemical. If the SDS requires the use of a respirator, proper medical review and fit testing must be performed before a respirator can be issued to an employee. Supervisors or division deans must approve issuing the respirator and ensure that it is being used properly. Any employee performing the following procedures shall have the chemicals used and work practices reviewed and approved to ensure respiratory protection is not required:

1. Applying, mixing, or storing chemicals
2. Dispensing aerosol can products
3. Applying insecticides and herbicides on campus grounds or inside building.

The voluntary use of respiratory equipment is found under a separate program.

F. Foot Protection

Any BCCC employee, as part of the everyday work routine, involved in lifting or moving objects that create a hazard for potential foot injury, due to the falling of such objects, must wear protective footwear, to protect the employee from such hazards. The following areas have been designated as those areas in which the activity requires the use of protective footwear:

1. Maintenance
2. Shipping and Receiving
3. Instructors in welding, machining, and agriculture technology
4. Industrial technology

NOTE: employees who are required to wear protective footwear will be reimbursed annually up to $75 for steel toed or Kevlar protective footwear. Protective footwear that becomes damaged or rendered unserviceable must be replaced immediately. Reimbursement of damaged footwear will be responsibility of the department dean.

G. Medical Emergencies Minimum PPE Requirements

Any BCCC employee and/or student who is involved at an incident that deals with contact with human blood or other human bodily fluids shall wear protective equipment as detailed in this section.

First responders to accidents or medical emergencies shall don the following equipment **BEFORE** dealing with a medical emergency or accident:

1. Safety glasses
2. Protective eye/face shield
3. Disposable gloves
4. Disposable gown or apron.

H. Shooting Range Minimum PPE Requirements

1. Safety Glasses or Prescription Glasses
2. Hearing Protection – ear plugs or ear muffs
3. A brimmed style cap – ball cap

I. Landscaping/Grounds Minimum PPE Requirements

1. Safety Glasses with side shields or
2. Mesh faceshield
3. Hearing Protection – ear plugs or ear muffs
4. Gloves, if hand hazards exist

J. Automotive Tech/Construction Equipment Minimum PPE Requirements

1. Safety Glasses with side shields
2. Hearing Protection – ear plugs or ear muffs
3. Gloves, if hand hazards exist
4. Cutting goggles, when gas cutting
5. Welding shield with proper shade when welding

K. Cosmetology/Nursing/MLT Minimum PPE Requirements

1. Safety Glasses, if eye hazards exist
2. Gloves, if hand hazards exist
3. Chemical clothing, if splash hazards exist

L. Sciences Lab Minimum Ppe Requirements

1. Safety Glasses with side shields and/or impermeable faceshield
2. Gloves, if hand hazards exist
3. Lab coats/chemical protective clothing, if splash hazards exist.

M. Welding and Machining Minimum PPE Requirements

1. Minimum eye protection – safety glasses with side shields
2. Impermeable faceshield, if splash or face hazards exist
3. Gloves, if hand hazards exist
4. Cutting goggles with proper shade when gas cutting
5. Welding shield with proper shade when welding

N. Revision History

Date	REV #	Changes
8/3/2015	2	Approved by Senior Staff
6/1/2015	1	Added New Divisions & PPE Assessments
February 1997	0	New Issue

O. Proper Cutting And Welding Lens Shades

Operation	Electrode Size	Arc Current	Minimum Shade Required *
SMAW	1/16" – 5/32"		10
	3/16" – ¼"		10-12
	5/16" – 3/8"		11-14
GMAW-GTAW (Ferrous)			10-12
GMAW-GTAW (Non Ferrous)			10-11
Carbon Arc Cutting		150-300 amps	10-12
		500-1000 amps	10-12
Plasma Arc Cutting		0-300 amps	10
		300-400 amps	10-12
		400-800 amps	10-14
Torch Brazing			3-4
Soldering			2
Thermal Spraying		3	
Operation	**Plate Thickness**	**Minimum Shade Required**	
Gas Welding	Up to 1/8"	4-5	
	1/8" – ½"	5-6	
	Over 1/2"	6-8	
Oxygen Cutting	Up to 1"	3-4	
	1" - 6"	4-5	
	Over 6"	5-6	

- **Individual should use the darkest shade which allows him sufficient view of the weld/cutting zone. Do not go below minimum shade required.**

P. Training Requirements:

- College/employee responsibilities
- Work area hazards
- How PPE will protect
- When PPE should be worn
- What PPE should be worn
- How to don, doff, assure proper fit, adjust, wear properly
- Limitations of the PPE
- Proper care, maintenance, cleaning (sanitation)
- Reporting and replacement of worn damaged PPE
- Useful life
- Proper disposal of PPE

All training shall be documented on the training form located at Section P below. Use of the below form will result of the training documentation being kept in an employee's training and/or personnel file.

Q. Certification of Employee Training on the Proper Use of Personal Protective Equipment

Instructor: _____
Date: _____
Type of PPE trained _____

Training Topics Covered**:**

1. College/employee responsibilities
2. Work area hazards
3. How PPE will protect
4. When PPE should be worn
5. What PPE should be worn
6. How to don, doff, assure proper fit, adjust, and wear properly
7. Limitations of the PPE
8. Proper care, maintenance, cleaning (sanitation)
9. Reporting and replacement of worn damaged PPE
10. Useful life, and
11. Proper disposal of PPE

The following employees have received training on their assigned PPE and have demonstrated an understanding of that PPE:

Department	Printed Name	Signature

Beaufort County Community College
Personal Protective Equipment (PPE) Hazard Assessment Form

R. Personal Protective Equipment (PPE) Hazard Assessment-Welding

Location/ Jobs	Potential Hazards	Body Parts	Required PPE
Indicate Department, Job Title, Equipment, Location or other identification of the task for which PPE is required:	1 Sharp/ Abrasive Objects 2 Flying Particles 3 Falling Objects 4 Acidic/ Caustic Chemicals 5 Toxic Chemicals 6 Chemical Absorption 7 Temperature Extremes 8 Sparks/ Hot Particles 9 Light Radiation 10 Chemical Gases/ Vapors 11 Wet/ Slippery Surfaces 12 Electrical Hazards 13 Biohazards 14 Noise 15 Vehicular Traffic 16 Fall from Heights 17 Other (describe)	18 Head 19 Face 20 Eye(s) 21 Ear(s) 22 Respiratory System 23 Trunk 24 Arm(s) 25 Hand(s) 26 Finger(s) 27 Leg(s) 28 Foot/ Feet 29 Toe(s) 30 Other (describe)	A Hard Hat/ Bump Cap B Safety Glasses C Chemical Splash Goggles D Face Shield E Welding Helmet F Ear Plugs G Ear Muffs H Personal Fall Protection (list) I Gloves (list type) J Shoes/ Boots (list type) K Respirator (list type) L High Vis Vest/Clothing M Gauntlets (list type) N Apron (list type) O Coat/ Coverall P Other (list type)
	***Potential Hazards**	***Body Part(s)**	***PPE Required**
Example: Disinfection	*Caustic chemicals*	*Hands*	*Heavy duty latex glove*
Cutting/Welding	1,2,3,5,7,8,9,10,11 14	All	A,B,D,E,F,G,H,I,J, K,M,N,O
Overhead hazards	3	All	Proper Job Procedures
Lifting material	3	All	Proper Job procedures
Handling material	1,2,3,17-muscle Strains	All	Proper Job Procedures

*Insert description or corresponding #.

CERTIFICATION

This hazard assessment has been performed to determine the type of PPE required for each affected employee. The assessment included a walk-through survey, specific job analysis, review of accident statistics, review of safety equipment selection guidelines, and selection of appropriate required PPE.

Assessment Certified by (Supervisor) Ted Clayton Date June 2, 2015

Beaufort County Community College

Personal Protective Equipment (PPE) Hazard Assessment Form

S. Personal Protective Equipment (PPE) Hazard Assessment – Maintenance

Location/ Jobs	Potential Hazards	Body Parts	Required PPE
Indicate Department, Job Title, Equipment, Location or other identification of the task for which PPE is required:	1 Sharp/ Abrasive Objects 2 Flying Particles 3 Falling Objects 4 Acidic/ Caustic Chemicals 5 Toxic Chemicals 6 Chemical Absorption 7 Temperature Extremes 8 Sparks/ Hot Particles 9 Light Radiation 10 Chemical Gases/ Vapors 11 Wet/ Slippery Surfaces 12 Electrical Hazards 13 Biohazards 14 Noise 15 Vehicular Traffic 16 Fall from Heights 17 Other (describe)	18 Head 19 Face 20 Eye(s) 21 Ear(s) 22 Respiratory System 23 Trunk 24 Arm(s) 25 Hand(s) 26 Finger(s) 27 Leg(s) 28 Foot/ Feet 29 Toe(s) 30 Other (describe)	A Hard Hat/ Bump Cap B Safety Glasses C Chemical Splash Goggles D Face Shield E Welding Helmet F Ear Plugs G Ear Muffs H Personal Fall Protection (list) I Gloves (list type) J Shoes/ Boots (list type) K Respirator (list type) L High Vis Vest/Clothing M Gauntlets (list type) N Apron (list type) O Coat/ Coverall P Other (list type)
	***Potential Hazards**	***Body Part(s)**	***PPE Required**
Example: Disinfection	*Caustic chemicals*	*Hands*	*Heavy duty latex glove*
Mowing Grass	Flying Particles/Noise	Eyes/Ears	Safety glasses/ear plugs
Using blower	Flying particles/noise	Eyes/ears	Safety Glasses/ear plugs
Edging	Noise/flying particles	Eyes/ears	Safety glasses/ear plugs
Weed eating	Noise/flying particles	Eyes/ears	Safety glasses/ear plugs
Working near streets or within 15' of Hwy 264	Struck by vehicles	Torso	High visibility/reflective vest
Lifting heavy objects from 15-200 pounds	Struck by/strains	Feet, arm, back strains	Steel toed shoes, back brace, hand cart, forklift
Changing oil & filter on vehicles	Chemical exposure	Eyes, skin	Safety glasses, work gloves
Using compressed air gun for cleaning	Flying particles, air embolism in blood stream	Eyes, internal body functions	Safety glasses, chip guard on air nozzle, reduce air pressure to less than 30 PSI
Using grinder	Flying particles, noise, strike against	Eyes, torso, hands, arms, legs	Safety glasses, face shield, gloves, grinder guard, ear plugs
Drill press	Struck by rotating chuck or drill bit	Hands, arms	Barrier guard for chuck & drill bit
Drill Press	Flying particles	Eyes, face, neck, arms, hands	Safety glasses, face shield, gloves
Chain saw	Flying particles, cuts, noise, struck by, burns	Eyes, face, neck, hands, arms, legs, head, feet	Safety glasses, hard hat, mesh face shield, ear plugs, leg chaps, steel toed shoes.

*Insert description or corresponding #.

CERTIFICATION

This hazard assessment has been performed to determine the type of PPE required for each affected employee. The assessment included a walk-through survey, specific job analysis, review of accident statistics, review of safety equipment selection guidelines, and selection of appropriate required PPE.

Assessment Certified by (Supervisor) Melvin Lodge Date June 2, 2015

Beaufort County Community COLLEGE
Personal Protective Equipment (PPE) Hazard Assessment Form

T. Personal Protective Equipment (PPE) Hazard Assessment -- Machining

Location/ Jobs	Potential Hazards	Body Parts	Required PPE
Indicate Department, Job Title, Equipment, Location or other identification of the task for which PPE is required:	1 Sharp/ Abrasive Objects 2 Flying Particles 3 Falling Objects 4 Acidic/ Caustic Chemicals 5 Toxic Chemicals 6 Chemical Absorption 7 Temperature Extremes 8 Sparks/ Hot Particles 9 Light Radiation 10 Chemical Gases/ Vapors 11 Wet/ Slippery Surfaces 12 Electrical Hazards 13 Biohazards 14 Noise 15 Vehicular Traffic 16 Fall from Heights 17 Other (describe)	18 Head 19 Face 20 Eye(s) 21 Ear(s) 22 Respiratory System 23 Trunk 24 Arm(s) 25 Hand(s) 26 Finger(s) 27 Leg(s) 28 Foot/ Feet 29 Toe(s) 30 Other (describe)	A Hard Hat/ Bump Cap B Safety Glasses C Chemical Splash Goggles D Face Shield E Welding Helmet F Ear Plugs G Ear Muffs H Personal Fall Protection (list) I Gloves (list type) J Shoes/ Boots (list type) K Respirator (list type) L High Vis Vest/Clothing M Gauntlets (list type) N Apron (list type) O Coat/ Coverall P Other (list type)
	***Potential Hazards**	***Body Part(s)**	***PPE Required**
Example: Disinfection	*Caustic chemicals*	*Hands*	*Heavy duty latex glove*
Cutting, welding	1,2,3,7,8,9,10,14	All	B,D,E,F,G,N
Machine Use	1,2,3,4,6,7,8,14	All	A,B,C,D,F,G,I,J,N
Lifting Material	3	All	Proper Job Procedures
Overhead Hazards	3	All	Proper job procedures

*Insert description or corresponding #.

CERTIFICATION

This hazard assessment has been performed to determine the type of PPE required for each affected employee. The assessment included a walk-through survey, specific job analysis, review of accident statistics, review of safety equipment selection guidelines, and selection of appropriate required PPE.

Assessment Certified by (Supervisor) Matt Lincoln Date June 2, 2015

Beaufort County Community COLLEGE
Personal Protective Equipment (PPE) Hazard Assessment Form

U. Personal Protective Equipment (PPE) Hazard Assessment -- Labs

Location/ Jobs	Potential Hazards	Body Parts	Required PPE
Indicate Department, Job Title, Equipment, Location or other identification of the task for which PPE is required:	1 Sharp/ Abrasive Objects 2 Flying Particles 3 Falling Objects 4 Acidic/ Caustic Chemicals 5 Toxic Chemicals 6 Chemical Absorption 7 Temperature Extremes 8 Sparks/ Hot Particles 9 Light Radiation 10 Chemical Gases/ Vapors 11 Wet/ Slippery Surfaces 12 Electrical Hazards 13 Biohazards 14 Noise 15 Vehicular Traffic 16 Fall from Heights 17 Other (describe)	18 Head 19 Face 20 Eye(s) 21 Ear(s) 22 Respiratory System 23 Trunk 24 Arm(s) 25 Hand(s) 26 Finger(s) 27 Leg(s) 28 Foot/ Feet 29 Toe(s) 30 Other (describe)	A Hard Hat/ Bump Cap B Safety Glasses C Chemical Splash Goggles D Face Shield E Welding Helmet F Ear Plugs G Ear Muffs H Personal Fall Protection (list) I Gloves (list type) J Shoes/ Boots (list type) K Respirator (list type) L High Vis Vest/Clothing M Gauntlets (list type) N Apron (list type) O Coat/ Coverall P Other (list type)
	***Potential Hazards**	***Body Part(s)**	***PPE Required**
Example: Disinfection	*Caustic chemicals*	*Hands*	*Heavy duty latex glove*
Broken glass	17-glass	24,25,26,27,28	I-gloves
Chemical Use & Storage	4,5,6,7,10,13	All	B,C,I,K,N,O, P-Proper procedures

*Insert description or corresponding #.

CERTIFICATION

This hazard assessment has been performed to determine the type of PPE required for each affected employee. The assessment included a walk-through survey, specific job analysis, review of accident statistics, review of safety equipment selection guidelines, and selection of appropriate required PPE.

Assessment Certified by (Supervisor) Teresa Crozier Date June 2, 2015

Beaufort County Community College
Personal Protective Equipment (PPE) Hazard Assessment Form

V. Personal Protective Equipment (PPE) Hazard Assessment – Construction Equipment

Location/ Jobs	Potential Hazards	Body Parts	Required PPE
Indicate Department, Job Title, Equipment, Location or other identification of the task for which PPE is required:	1 Sharp/ Abrasive Objects 2 Flying Particles 3 Falling Objects 4 Acidic/ Caustic Chemicals 5 Toxic Chemicals 6 Chemical Absorption 7 Temperature Extremes 8 Sparks/ Hot Particles 9 Light Radiation 10 Chemical Gases/ Vapors 11 Wet/ Slippery Surfaces 12 Electrical Hazards 13 Biohazards 14 Noise 15 Vehicular Traffic 16 Fall from Heights 17 Other (describe)	18 Head 19 Face 20 Eye(s) 21 Ear(s) 22 Respiratory System 23 Trunk 24 Arm(s) 25 Hand(s) 26 Finger(s) 27 Leg(s) 28 Foot/ Feet 29 Toe(s) 30 Other (describe)	A Hard Hat/ Bump Cap B Safety Glasses C Chemical Splash Goggles D Face Shield E Welding Helmet F Ear Plugs G Ear Muffs H Personal Fall Protection (list) I Gloves (list type) J Shoes/ Boots (list type) K Respirator (list type) L High Vis Vest/Clothing M Gauntlets (list type) N Apron (list type) O Coat/ Coverall P Other (list type)
	***Potential Hazards**	***Body Part(s)**	***PPE Required**
Example: Disinfection	*Caustic chemicals*	*Hands*	*Heavy duty latex glove*
Air Tools	1,2,14,	18,19,20,21,24,	B,D,F,G,I,
Cutting/Welding	1,2,3,7,8,9,10,14,16	18,19,20,21,22,23,24,25 26,27,28,29	A,B,D,E,G,H,I,J,K Welder's gloves
Hand tools	17-muscle strains	24,25,26,27,30-shoulder	None
Struck by/against	17-equipment movement	All	None-proper job tasks

*Insert description or corresponding #.

CERTIFICATION

This hazard assessment has been performed to determine the type of PPE required for each affected employee. The assessment included a walk-through survey, specific job analysis, review of accident statistics, review of safety equipment selection guidelines, and selection of appropriate required PPE.

Assessment Certified by (Supervisor) s/ Haywood Broome Date June 2, 2015