



# MASTER COURSE SYLLABUS

## BCT-105 ~ Tool Usage & Safety

*Department of General Technology*  
*Your College, Your Future*  
*Established 1969*

Course Number	BCT-105
Course Title	Tools Usage & Safety
Credit Hours	2
Prerequisites	None
Course Description	This course covers tool skills and their safe use in construction.
Student Learning Goals/Objectives	Perform the skills necessary for an entry level position in the construction field or post-secondary education. Demonstrate the ability to identify, use, and maintain tools and equipment. Practice proper safety procedures when using tools, handling materials, or performing tasks. Students shall exhibit critical reasoning when confronted with technical day-to-day problems. Students will demonstrate safe usage and maintenance of power tools.
Course Developer	Randall Nesmith
Means of Instruction	Lecture/Lab
Required Textbook/Written Materials/Supplies	<i>See Booklist online for current book.</i> Safety glasses Student may bring hand tool set as long as it is inspected by the instructor and found to be safe for use.

### General Education Core Competencies

General Education Core Competencies	Course Methodology, Content and/or Assessment
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<p><b>Communication:</b> Students will be able to communicate effectively through reading, writing, speaking and listening.</p> <ul style="list-style-type: none"> <li>• Prepare written documents in a professional manner.</li> <li>• Develop oral communication skills to present information in a professional and appropriate manner.</li> <li>• Demonstrate appropriate listening skills in one-on-one and small and large group settings.</li> </ul>	<p><b>Participation in class discussions is recommended and encouraged.</b></p> <p><b>The lab consists of exercises that are self-paced using hands on construction shop tools.</b></p> <p><b>The Instructor will work with each individual student to assure quality workmanship.</b></p>
<p><b>General Education Core Competencies</b></p>	<p><b>Course Methodology, Content and/or Assessment</b></p>
<p><b>Mathematical Reasoning:</b> Students will apply those mathematical skills appropriate to their program of study.</p> <ul style="list-style-type: none"> <li>• Analyze and solve mathematical problems needed in the workplace, daily life and educational environment.</li> <li>• Interpret data using analytical methods.</li> </ul>	<p><b>Students will be able to measure to 1/16 inch accuracy with a tape measure.</b></p> <p><b>Students will be able to Calculate Square Footage within .01 accuracy.</b></p>
<p><b>Critical Thinking:</b> Students will employ effective processes for resolving problems and making decisions.</p> <ul style="list-style-type: none"> <li>• Identify problems and potential causes.</li> <li>• Solve problems using basic research, analysis and interpretation.</li> <li>• Evaluate results of solutions and revise strategies as indicated by findings.</li> </ul>	<p><b>Students will utilize and demonstrate safety precautions when using tools to preforming construction task.</b></p> <p><b>Students will diagnosis construction problems safely using tools.</b></p> <p><b>Students will safely repair construction trades problems with a variety of different tools.</b></p>
<p><b>Technology Utilization:</b> Students will apply knowledge of computers on a level compatible with job and/or educational demands.</p> <ul style="list-style-type: none"> <li>• Demonstrate a basic knowledge of computer applications including word processing, spreadsheets, databases, and presentation software.</li> <li>• Use basic operating system functions competently (e.g. store and retrieve data, load software).</li> <li>• Demonstrate communication and research skills through use of the internet.</li> </ul>	<p><b>N/A</b></p>
<p><b>General Education Core Competencies</b></p>	<p><b>Course Methodology, Content and/or Assessment</b></p>

<p><b>Interpersonal Skills:</b> Students will deal effectively and appropriately with others.</p> <ul style="list-style-type: none"> <li>• Interact well with individuals and groups from diverse backgrounds and cultures.</li> <li>• Work with others in situational analysis, problem solving, and task accomplishment.</li> <li>• Demonstrate respect for the rights, work, and views of others.</li> </ul>	<p>Can work effectively with other students in completing assignments as a project team.</p> <p>Is able and willing to instruct less experienced students in completing work assignments.</p> <p>Is willing and able to explain the nature of a problem and the action taken to make necessary adjustments or repairs.</p> <p>Demonstrates flexibility in assigned shared responsibilities.</p> <p>Interacts well with individuals from diverse backgrounds and cultures while refraining from discriminatory practices. (ex. Gender)</p>
<p><b>Professionalism:</b> Students will exhibit professionalism through observances of a code of ethics, a sense of responsibility, good habits, and a positive attitude.</p> <ul style="list-style-type: none"> <li>• Demonstrate personal and business integrity and ethics.</li> <li>• Recognize, manage, and cope with the transitions of change.</li> <li>• Utilize informational resources for lifelong learning.</li> </ul>	<p>The student will have to show the ability and proper attire to project professionalism in the Construction field.</p> <p>Be eager for a lifelong learning career.</p>

### College Policies

Policy Type	Policy Description
<p><b>Attendance Policy</b></p>	<p>Williamsburg Technical College does not require specific attendance in a course. Acknowledging that participation supports student success in coursework, however, individual instructors may set attendance guidelines for the course. Those specific guidelines must be included in the course syllabus. (<i>See Syllabus Addendum provided by the instructor.</i>)</p> <p>In addition, students must attend during the first two weeks of class or inform the instructor of their intent to attend to remain on the class roster. If no prior arrangements have been made and the student does not attend during the first two weeks following the semester start date, the student will be dropped as a “no show” from that course following the second week of class. Class rosters will be final as of the end of the second week of classes.</p> <p>Students may withdraw from a class at any time by completing a withdrawal form in the Student Services Office. A student can only receive a “WP” grade if withdrawal is completed in the Student Services Office prior to the last date to receive a “WP” grade published in the academic calendar. Students who fail to withdraw by the specified time will receive a letter grade for the course. For specific procedures related to this policy, refer to WTC Procedure D-23.1.</p>

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Policy Type	Policy Description
Policy for Students with Disabilities	<p>The Student Affairs Division provides counseling and support services which help students with disabilities to pursue academic programs of their choice and participate fully in campus life.</p> <p>The AVP for Student Affairs can arrange counseling, special parking, priority registration, and other reasonable services needed by students with disabilities. Students with disabilities are encouraged to contact the AVP for Student Affairs to discuss needs and concerns as they arise.</p>
Policy for Academic Misconduct	<p>All forms of academic dishonesty including, but not limited to, cheating on tests, plagiarism, collusion, and falsification of information will call for discipline. See the Student Code &amp; Grievance Procedure in the Williamsburg Technical College Catalog for details.</p>
Grading Policy	<p>The College operates on the semester hour system, and the following symbols are used in grading:</p> <p>A = Excellent      B = Above Average      C = Average      D = Passing      F = Failure      I = Incomplete      WF = Withdrawal while failing      WP = Withdrawal while passing</p>
Policy for Class Safety and Emergencies	<p>Please refer to the college catalogue for more information on how Williamsburg Technical College addresses safety and emergency issues. For additional information, contact Student Affairs at 843.355.4162. Students taking coursework at off-site locations are responsible for reading and adhering to all safety instructions and guidance at the off-site location.</p> <p style="text-align: center;"><b>Health Services and First Aid</b></p> <p>Williamsburg Technical College is a commuter institution; therefore, infirmary facilities are not provided. Basic first aid for minor injuries is available, and first aid kits are located in various departments of the College. Major illness or injury will be treated by health professionals. The campus is located adjacent to Williamsburg Regional Hospital.</p> <p>Each student is covered by accident insurance at no additional cost. This group insurance covers the student ion.</p>

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**Williamsburg Technical College**  
***Department of Construction Trades***  
**Syllabus Addendum**  
**BCT-105 Tool Usage and Safety**  
**Academic Year 2021-2022**

<b>Department Chair</b>	<b>Mike Cumbie</b>
<b>Room Number</b>	<b>415</b>
<b>Office Telephone</b>	<b>355-4155</b>
<b>E-mail Address</b>	<b>cumbiem@wiltech.edu</b>

<b>Course Developer</b>	<b>Randall Nesmith</b>
<b>Room Number</b>	<b>400</b>
<b>Office Telephone</b>	<b>355-4159</b>
<b>E-mail Address</b>	<b>nesmithr@wiltech.edu</b>

<b>Required Textbooks</b>	<b>Modern Carpentry 12<sup>th</sup> Edition</b>
<b>Required Materials, Supplies, and/or Tools</b>	<b>Safety Glasses</b>

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# **Departmental Learning Outcomes**

**Students will be able to perform basic carpentry skills in a safe manner**

## **Student Learning Outcomes**

<b>#1 Students shall exhibit proper OSHA code and conduct procedures.</b>
<b>#2 Students shall demonstrate workplace safety needed to finish a project.</b>
<b>#3 Students shall demonstrate safe usage and maintenance of power tools.</b>
<b>#4 Students will perform skills needed for entry level positions.</b>

## **Attendance Policy**

**Students must attend 90% of the hours assigned to the class for a semester to receive credit for the course.**

## **Class Policy**

**Students will not be allowed to have cell phones, music playing devices or other items not related to class.**

**No smoking will be allowed except at designated area during instructor assigned break periods.**

**Students must display proper student ID at all times while in class**

## **Grading Policy**

### **Evaluation Method Total Points**

**Lab/shop Projects -50%**

**Final Exam -25%**

**Book Work-25%**

**A=93-100**

**B=85-92**

**C=77-84**

**D=70-76**

**F=69-0**

**\*\*Lab/shop projects are determined by:**

- \* Safely Cut material to precise length**
- \* Safely Operation of hand drills**

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- \* **Safely Operation of table saw**
- \* **Safely Frame and square a wall**

### Drop Policy

**Last day to drop with “WP” 11-11-21**

### Course Schedule

Week/Date	Chapter	Lessons/Key Points	Tests / Assignments
<b>Wk-1</b>	Ch. 4, section 1	Measurement and Layout Tools Key Point: Tape Measure	Class Assignment #1
<b>Wk-2</b>	Ch. 4, section 1	Measurement and Layout Tools Key Point: Folding Tape Rule	Class Assignment #2
<b>Wk-3</b>	Ch. 4, Section 1	Measurement and Layout Tools Key Point: Squares	Quiz #1
<b>Wk-4</b>	Ch. 4, Section 2	Saw Types Key Point: Hack Saw	Test: Chapter 4, Section 1 - 2
<b>Wk-5</b>	Ch. 4, Section 2	Saw Types Key Point: Circular Saw	Class Assignment #3
<b>Wk-6</b>	Ch. 4, Section 2	Saw Types Key Point: Miter Saw	Class Assignment #4

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<b>Wk-7</b>	Ch. 4, Section 2	Saw Types Key Point: Table Saw	Quiz #2
<b>Wk-8</b>	Ch. 4, Section 2	Saw Types Key Point: Router	Test: Chapter 4, Section 2
<b>Wk-9</b>	Ch. 4, Section 5	Prying Tools Key Point: Hammer	Class Assignment #5
<b>Wk-10</b>	Ch. 4, Section 5	Prying Tools Key Points: Pry Bar & Crow Bar	Class Assignment #6
<b>Wk-11</b>	Ch. 4, Section 5	Fastening Key Point: Philip Screw Driver and Flat Screw Driver	Quiz #3
<b>Wk-12</b>	Ch.4, Section 5	Fastening Key Point: Battery Power Drill	Test: Chapter 4, Section 5
<b>Wk-13</b>		Review and Exam	Final Exam