



# Atlantic Technical College

## Welding Technology

### Program Syllabus

### 2023-2024



**Instructor Name:** Mr. Dustin Welch  
**Department Name:** Technical Trades Department  
**Office/Classroom Location:** Building 15, Room 263  
**Phone Number:** (754) 321-5125.  
**Email Address:** [dustin.welch@browardschools.com](mailto:dustin.welch@browardschools.com)

**Instructor Office Hours:**  
**M-F:** 1:50 PM - 3:50 PM  
(By appointment only)

**Student Hours:**  
**Monday – Friday**  
**7:05 AM to 10:10 AM**  
(Adults & High School)

**Lunch: 10:10 AM to 10:40 AM**

**10:50 AM to 1:50 PM**  
(Adults & High School)

*NOTE: All students are expected to be present during their entire scheduled class time(s). All classroom breaks will occur on an “as needed” basis.*

**Program Name:** Welding Technology  
**Career Cluster:** Manufacturing

OCP	Course Number / Title	Course Length
A	PMT0070 / Welder Assistant 1	150 hours
	PMT0071 / Welder Assistant 2	150 hours
B	PMT0072 / Welder, SMAW 1	150 hours
	PMT0073 / Welder, SMAW 2	150 hours
C	PMT0074 / Welder	<u>450 hours</u>
		<b>1050 hours total (Full-time, including summer)</b>

#### College Policy/Adult Student Attendance:

- A student must be withdrawn after being absent for six (6) consecutive days.
- Two (2) additional absences may be allowed under certain circumstances with appropriate documentation.
- Please refer to the Broward Technical College Student Handbook for postsecondary students.  
<http://www.atlanticttechnicalcollege.edu/atc-student-handbook/>

#### Dual Enrollment/Magnet High School/Attendance Policy:

A student who has had at least five unexcused absences, or absences for which the reasons are unknown, within a calendar month, or 10 unexcused absences, or absences for which the reasons are unknown, within a 90-calendar-day period, may be exhibiting a pattern of non-attendance (F.S.1003.26 (1) (b)) and the School Board of Broward County, Policy 5.5.

<b>Required Books and Supplies (Available at Campus Bookstore):</b>	<b>Required Tools / Retail Supplies (Some items are available at ATC (Atlantic Technical College) Bookstore):</b>
<ol style="list-style-type: none"> <li>Online Course: American Welding Society curriculum (Pending approval)</li> <li>Welding Print Reading, 7<sup>th</sup> Edition ISBN# <b><u>978-1-63563-681-9</u></b> <b><u>(We would keep this book if the AWS curriculum were not going to be used for 2023-24)</u></b></li> </ol>	<ol style="list-style-type: none"> <li>Welding Shield with a #10 or Auto welding hood shades 9-13</li> <li>* Approved A.N.S.I. Z87 Clear Safety Glasses</li> <li>* Welding gloves (thick, Insulated for stick welding)</li> <li>* Canvas jackets with leather sleeves. (Sized to fit)</li> <li>* Chipping hammers</li> <li>* 6" inch wire brush and small wire brush 1" &amp; 2"</li> <li>* Cutting Goggles or (approved A.N.S.I. Z87 Cutting Safety glasses with a #5 Lens (not part of the kit)</li> <li>* Flint Striker</li> <li>* Tip Cleaner</li> <li>* TIG welding gloves</li> <li>* Soap stone (used for marking metal during cutting) 2 pack sharpie markers</li> <li>Tape Measure 25ft</li> <li>Wire Cutters</li> <li>10" Vise Grips</li> <li>10" Adjustable Wrench.</li> <li>* Items included in the <u>Tillman Premium Protection Kit</u></li> <li>4.5" Angel grinder</li> </ol> <p><b>Items below must be purchased by H.S. students</b></p> <ol style="list-style-type: none"> <li>Ear Plugs</li> <li>Cotton welding hat (no synthetic materials)</li> <li>Leather work boots (must be above the ankle Steel Toe is preferred)</li> <li>Two locks for lockers with 2 combination locks</li> <li>Work clothing (100% cotton or wool or blend of both)</li> </ol>

**ADULT STUDENTS:** All required books & some materials/supplies can be purchased from the school bookstore. Stop by during operational hours for pricing & purchasing information. All other required materials/retail supplies not available at the bookstore need to be purchased elsewhere. All required books and materials/retail supplies must be obtained before the program starts.

**HIGH SCHOOL STUDENTS:** Students who receive a required book will be issued one, if lost or missed placed the student will have to replace it at their own expense. Most of the required tools/supplies are on loan, high school students are responsible for the care and return of all of the required books and required tools/supplies on loan and will be issued an obligation for damaged or missing books and/or tools/supplies. Some of the required materials/supplies can be purchased from the school bookstore. All other required materials/retail supplies not available at the bookstore need to be purchased elsewhere.

Employability	30 %
Classroom projects/ Assessments	30%
Lab Work	40%

Online Assignments / Teams assignments will be graded just like classwork.

1. Go to <https://browardfocus.com>
2. Student ID which is on your student schedule.
3. Passcode: Student's date of birth formatted as PMM/DD/YYYY.  
*Two digits for the month, two digits for the day and Four digits for the year.*

1. Students are expected to be in their seats and ready to work when the bell rings.
2. Students are required to always adhere to the Code of Conduct, as set forth by the School Administration and the Broward Technical College Student Handbook. No sleeveless shirts will be worn at any time.
3. Students must always show respect to other students and the teacher.
4. Good manners are necessary for a pleasant classroom environment. Please raise your hand to be recognized. Do not speak when someone else is speaking. Rudeness, bullying or disruptive behavior will NOT be tolerated.
5. Students are responsible for always keeping their personal belongings with them.
6. All electronic devices must be silent and out of sight during instructional time. This includes cell phones, earbuds, smartwatches, headphones, mp3 players, etc. The school and/or teacher are not responsible for lost or stolen devices/personal belongings of any kind.
7. Computer use is to complete required assignments / classwork.
8. Log off computer & turn off monitor before leaving class each day (except on Thursdays, when Updates occur).
9. No food and/or drinks are permitted around any computers.
10. Chairs will be placed on the tables in the classroom at the end of class.
11. Remain seated, when the bell rings, until you are dismissed.
12. Students must notify the teacher, in advance, if planning to miss a portion of class time(s) for ANY reason.
13. Students shall familiarize themselves and adhere to all safety procedures in the Classroom Safety Manual and Lab.
14. No student should work in or enter the lab until they have had a lab orientation.
15. Student(s) must not operate any piece of equipment until they have been trained and have been authorized to operate it.
16. Wear approved A.N.S.I. Z87 safety glasses in the lab. **No Exceptions!** NO SUNGLASSES in the classroom and or lab at any time.
17. A shirt or any loose clothing must be tucked in or tied out of the way of hazards.

18. A face shield must be worn when operating a hand grinder, power wire brush, bench grinder, belt sander, or any power tool.
19. Long hair must be tied back out of the way of any hazards.
20. No jewelry is to be worn in the lab at any time.
21. General work clothing used in the lab must be 100% cotton or wool, 100% cotton hat or blend of the above. (Refer to Chapter 2 in the welding textbook or Tooling-U, Per. Protect Equip. 120 (PPE 120)).
22. Special protective clothing must be worn during the welding operation, proper hand, body waist and lap, arm protection etc. are required to be used during the above operation(s).
23. Boots (read chapter 2 in the welding textbook or Tooling-U, PPE 120).
24. No matches or cigarette lighters in the lab area or on your body at any time.
25. Student(s) will not talk or interrupt other students while welding or operating equipment, you must wait for the operator to stop operating the equipment first.
26. No liquids will be placed on any device that contains electric, welding machines, electrical boxes, etc.
27. No smoking, nor (E-Cigs) on ATC's campus of any kind.

**Lab Clean-up will be consisted of:**

28. Return all tool(s) and your electrode can, that were checked out, to the tool room each day.
29. Sweep off your work bench, the floor in the welding booth and under the welding machine. Roll up the welding cables and place them on the hook in the welding booth.
30. Remove all metal from the welding booth and place it in your metal locker or scrap bin. If it is still hot, cool the hot metal first.
31. First, turn off the power to the welding machine.
32. Second, turn off the power at the electrical breaker box, outside the welding booth.
33. Return your welding equipment to your locker.
34. Return your chair to the top of the work bench.
35. Sweep your assigned lab area and dust off equipment in your area.

**NOTE: All the rules above must be followed by each student every day (no exceptions).**

<p><b>Industry Credentials:</b> American Welding Society Welding Certification available at an extra cost.</p> <p>Price for the A.W.S. Welding Qualification(s),</p> <ul style="list-style-type: none"> <li>• \$25 for steel plate each and \$30 for steel pipe each.</li> <li>• 3G/4G SMAW</li> <li>• 3G/4G FCAW</li> <li>• 1G/2G/3G GTAW (Steel, Stainless Steel and Aluminum)</li> </ul>	<p><b>Outstanding Student Recognition Information:</b></p> <p>A gold seal will be applied to a Program Completion Certificate or an Applied Technology Diploma if the student has earned a 3.5 GPA (Grade Point Average) or higher in their Career and Technical Education (CTE) classes.</p>
<p align="center"><b>Program Name:</b> Welding Technology</p>	
<p><b>Course Number:</b> PMT0070  <b>Course Title:</b> Welder Assistant 1  <b>Occupational Completion Point:</b> A  <b>Intended Outcomes:</b>  01.0 Demonstrate an understanding and apply workplace safety and workplace organization skills.  02.0 Demonstrate basic knowledge of industrial and manufacturing processes.  03.0 Describe and identify metal and its properties accurately.  04.0 Demonstrate basic knowledge of drawing and interpreting AWS welding symbols.  05.0 Apply basic Oxyfuel gas cutting principles and practices.  06.0 Create a product using basic Oxyfuel gas cutting principles and practices.</p>	
<p><b>Course Number:</b> PMT0071  <b>Course Title:</b> Welder Assistant 2  <b>Occupational Completion Point:</b> A  <b>Intended Outcomes:</b>  07.0 Apply intermediate Oxyfuel gas cutting principles and practices.  08.0 Demonstrate plasma arc cutting principles and practices.  09.0 Demonstrate a basic understanding of shielded metal arc welding (SMAW).  10.0 Create a product using basic shielded metal arc welding (SMAW) principles and practices.</p>	
<p><b>Course Number:</b> PMT0072  <b>Course Title:</b> Welder, SMAW 1  <b>Occupational Completion Point:</b> B  <b>Intended Outcomes:</b>  11.0 Apply basic shielded metal arc welding (SMAW) skills.  12.0 Demonstrate and apply Carbon Arc Gouging (GAC) principles and practices.  13.0 Apply visual examination skills.  14.0 Create a product using Carbon Arc Gouging and basic shielded metal arc welding (SMAW) principles and practices.</p>	
<p><b>Course Number:</b> PMT0073  <b>Course Title:</b> Welder, SMAW 2  <b>Occupational Completion Point:</b> B  <b>Intended Outcome:</b>  15.0 Demonstrate and understanding of employability skills and career opportunities related to the welding industry.  16.0 Apply intermediate shielded metal arc welding (SMAW) skills.</p>	

17.0 Create a product using intermediate shielded metal arc welding (SMAW) principles and practices.

**Course Number:** PMT0074

**Course Title:** Welder

**Occupational Completion Point:** C

**Intended Outcomes:**

18.0 Apply basic gas metal arc welding (GMAW) skills.

19.0 Apply intermediate gas metal arc welding (GMAW) skills.

20.0 Apply basic flux-cored arc welding (FCAW) skills.

21.0 Apply intermediate flux-cored arc welding (FCAW) skills.

22.0 Apply basic gas tungsten arc welding (GTAW) skills.

23.0 Apply intermediate basic gas tungsten arc welding (GTAW) skills.

24.0 Demonstrate an understanding of pipe welding principles and practices.

The School Board of Broward County, Florida, prohibits any policy or procedure which results in discrimination based on age, color, disability, gender identity, gender expression, national origin, marital status, race, religion, sex, or sexual orientation. Individuals who wish to file a discrimination and/or harassment complaint may call the Director, Equal Education Opportunities/ADA Compliance Department at 754-321-2150 or Teletype Machine (TTY) 754-321-2158. Individuals with disabilities requesting accommodations under the Americans with Disabilities Act Amendments Act of 2008, (ADAAA (Americans with Disabilities Act Amendments Act)) may call Equal Educational Opportunities/ADA Compliance Department at 754-321-2150 or Teletype Machine (TTY) 754-321-2158.