

Welding Level 1 Syllabus

Teacher Mr. Jackson

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Room # 111

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Course Description:

The Welding course will provide students with an introduction into the welding field. The practical experiences in the shop are designed to broadly qualify the student for employment in the construction and repair industry and the boat building and repair industry. Students are trained in the use of the oxy-acetylene process, which includes metal cutting, welding, brazing and soldering. The various types of arc welding such as shielded metal ARC (SMAW) metal inert gas (MIG) and tungsten inert gas (TIG) are taught in depth. This is a three year program, with student work advancing through these standards.

Course Objective:

Students in this level will be taught how to weld, specifically they will focus on learning and practicing cutting, brazing and soldering, and high-energy beam welding. They will explore welding as a career and participate in the integration of academics, vocational, evaluation, technology and social skills required of becoming a welder.

Course Requirements:

Course activities and projects required for successful completion of the course includes meeting Cape Tech requirements, technical research paper, completing all class work (hands on & academic) and completing a senior project.

Criteria for Assessing Student Performance:

Class participation	80%	Conduct, citizenship complete class work
Test & Quizzes	10%	Classroom Theory, Classroom Textbook
Hands on projects	10%	Completing related welding projects

Note: Benchmark Mid-term and Final Exams are independently graded

Standards:

New Jersey Student Learning Standards (NJSL) in English Language Arts and Mathematics; 8.1 and 8.2 Technology Standards; 21st Century Life and Careers Standards that include: Career Ready Practices; 9.1 Personal Financial Literacy; 9.2 Career Awareness, Exploration, and Preparation; 9.3. Career and Technical Education aligned to industry standards.

Textbooks, Related Readings:

Welding Skills & Workbook; Oxyfuel Gas Welding Published by Goodheart-Willcox, Oxyfuel Gas Welding Write In Text By Kevin E. Bowditch

Welding Level 2 Syllabus

Teacher Mr. Jackson

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Course Description:

The Welding course will provide students with an introduction into the welding field. The practical experiences in the shop are designed to broadly qualify the student for employment in the construction and repair industry and the boat building and repair industry. Students are trained in the use of the oxy-acetylene process, which includes metal cutting, welding, brazing and soldering. The various types of arc welding such as shielded metal ARC (SMAW) metal inert gas (MIG) and tungsten inert gas (TIG) are taught in depth. This is a three year program, with student work advancing through these standards.

Course Objective:

Students in this level will be taught how to weld, specifically they will focus on solid state welding ferrous and non-ferrous materials, oxidation-reduction using the GTAW and GMAW process. They will explore welding as a career and participate in the integration of academics, vocational, evaluation, technology and social skills required of becoming a welder.

Course Requirements:

Course activities and projects required for successful completion of the course includes meeting Cape Tech requirements, technical research paper, completing all class work (hands on & academic) and completing a senior project.

Criteria for Assessing Student Performance:

Class participation	80%	Conduct, citizenship complete class work
Test & Quizzes	10%	Classroom Theory, Classroom Textbook
Hands on projects	10%	Completing related welding projects

Note: Benchmark Mid-term and Final Exams are independently graded

Standards:

New Jersey Student Learning Standards (NJSLS) in English Language Arts and Mathematics; 8.1 and 8.2 Technology Standards; 21st Century Life and Careers Standards that include: Career Ready Practices; 9.1 Personal Financial Literacy; 9.2 Career Awareness, Exploration, and Preparation; 9.3. Career and Technical Education aligned to industry standards.

Textbooks, Related Readings:

Modern Welding Text and Laboratory Manual By William Bowditch

Welding Level 3 Syllabus

Teacher Mr. Jackson

Voice 609-380-0200 ext. 111

Room # 111

E-mail* tjackson@capemaytech.com

Course Description:

The Welding course will provide students with an introduction into the welding field. The practical experiences in the shop are designed to broadly qualify the student for employment in the construction and repair industry and the boat building and repair industry. Students are trained in the use of the oxy-acetylene process, which includes metal cutting, welding, brazing and soldering. The various types of arc welding such as shielded metal ARC (SMAW) metal inert gas (MIG) and tungsten inert gas (TIG) are taught in depth. This is a three year program, with student work advancing through these standards.

Course Objective:

Students in this level will be taught how to weld, specifically they will focus on welding metallurgy, welding processes and heat treating structural design, safety and applicable codes and standards including the AWS Certification. They will explore welding as a career and participate in the integration of academics, vocational, evaluation, technology and social skills required of becoming a welder.

Course Requirements:

Course activities and projects required for successful completion of the course includes meeting Cape Tech requirements, technical research paper, completing all class work (hands on & academic) and completing a senior project.

Criteria for Assessing Student Performance:

Class participation	80%	Conduct, citizenship complete class work
Test & Quizzes	10%	Classroom Theory, Classroom Textbook
Hands on projects	10%	Completing related welding projects

Note: Benchmark Mid-term and Final Exams are independently graded

Standards:

New Jersey Student Learning Standards (NJSLS) in English Language Arts and Mathematics; 8.1 and 8.2 Technology Standards; 21st Century Life and Careers Standards that include: Career Ready Practices; 9.1 Personal Financial Literacy; 9.2 Career Awareness, Exploration, and Preparation; 9.3. Career and Technical Education aligned to industry standards.

Textbooks, Related Readings:

Modern Welding Text and Laboratory Manual By William Bowditch