



MFG 336	CNC Plasma Operations	3 credits
Spring 2015	W F	7:30-11:00 a.m. 1:00-2:30 p.m.

Darwin Wetzel, Instructor
Email: Wetzel@swccciowa.edu
Phone: 641-782-1312
Office: Rm. 133

Catalog Description

CNC Plasma Operations (3.0) Credits

This course introduces students to computer numerical control as related to CNC plasma cutting. The use of computers and related software is covered. It will emphasize input language, codes, machine setup and operation, and inspection of parts. Safety is always emphasized throughout all courses. Parts produced with the CNC plasma will be used for welding projects in the program. (1, 4)

Materials

The book Welding by David J. Hoffman, Kevin R. Dahle and David J Fisher will be use along with handouts and power points. The CAD program from Torch Mate Co. will also be used.

Learner Outcomes

The student will be able to:

1. Create a blueprint using the Torch Mate CAD Program. (RC-C, CT-A)
2. Demonstrate the ability to create a cut path, put it in a DXF file for the CNC computer. (CT-A, IS-A)
3. Apply the skills that the student has learned to set up the computer, the cutting control module, the plasma, and cut the part out. (IS-A, CT-A)
4. Analyze the part for accuracy and if needed, make the adjustments necessary to make sure that the part meets the blueprint's tolerances. (CT-C, RC-A)

Grading Criteria

Quizzes	20% of total grade
Tests	30% of total grade
Lab Performance	50% of total grade

Grade Scale

100-90	A
89-80	B
79-70	C
69-60	D
59 and below	F

Late Assignments

All late assignments must be made up within two days of a student's return from absence or by the instructor's ruling.

Makeup Tests

Tests must be made up within three days of the student's return from absence.

Class Expectations

- ☐ As you are training to be professionals, your conduct is very important. People's perception of you can mean everything in a competitive job market. Exercising respect, courtesy, manors and professionalism will be expected in this program. In other words, treat one another the same way that you would like to be treated.
- ☐ I will strive to treat students with civility and respect. Civility in the classroom is expected of all members of the class. Anyone who disrupts class to the extent that other's educational opportunities are diminished may be asked to leave the classroom.
- ☐ Participation: This is a course or career that you have chosen, so it is up to you to get everything from this program that you possibly can. If you don't participate, you are letting yourself down. Set your standards high and remember, this is for you.
- ☐ Students are expected to show up for class as scheduled, on time and prepared for each daily activity. It is the responsibility of the student to notify the instructor if he or she will be absent or late. If the student is sick or for any circumstances where they are absent, call in and let the instructor know.
- ☐ A maximum of three days absence per semester are allowed for the student. Any more absentees may result in termination from the program. It is up to the instructor to make this decision.
- ☐ The instructor will keep the students informed of their grades in a timely manner. Grades will be posted every two weeks or monthly depending on the circumstances.
- ☐ Plagiarism will not be tolerated and will result in a zero for that particular assignment.

Class Schedule

Class schedules are subject to change, any changes made will be announced in advance.

Course Name	Number	Sec	Class Time	Instructor	Cred	Room	Notes
Advanced Welding Techniques	CRR 116	01 02 03	M 7:30-10:30 F 7:30-10:30 F 2:05-3:05	Wetzel Wetzel Rich	2	1TC138	
Maintenance Welding	WEL 124	01	TTH 8-10	Wetzel	3	1TC201	
Advanced Shielded Metal Arc Welding	WEL 224	01	MW 12-3 F 10:30-12:30	Wetzel	3	1TC201	Jan 12 – Mar 6
Intro to Gas Metal Arc Welding	WEL 225	01	TTH 10:30-12:30; 1:30-3:30	Wetzel	3	1TC201	Jan 12 – Mar 6
Advanced Gas Metal Arc Welding	WEL 227	01	TTH 10:30-12:30; 1:30-3:30	Wetzel	3	1TC201	Mar 9 – May 8
Intro to Gas Tungsten Arc Welding	WEL 229	01	MW 12-3 F 10:30-12:30	Wetzel	3	1TC201	Mar 9 – May 8
Sheet Metal Restoration	WEL 232	01	MTTHF 7:30-11	Rich	4	1TC201	Jan 12 – Mar 6
Welding Capstone	WEL 800	01	MTTHF 7:30-11	Rich	4	1TC201	Mar 9 – May 8
CNC Plasma Operations	MFG 336	01	W 7:30-11 F 1-2:30	Wetzel	3	1TC201	

Syllabus Standard Policy Statements

Academic Integrity Policy

Academic freedom is a fundamental right in any institution of higher learning. Honesty and integrity are necessary preconditions of this freedom. Academic integrity requires that all academic work be wholly the product of an identified individual or individuals. Joint efforts are legitimate only when the assistance of others is explicitly acknowledged. Ethical conduct is the obligation of every member of the college community, and breaches of academic integrity constitute serious offenses. Refer to this section of the Student Handbook for further details.

Plagiarism

Plagiarism is the representation of the words or ideas of another as one's own in any academic exercise. To avoid plagiarism, every direct quotation must be identified by quotation marks or by appropriate indentation and must be properly cited in the text or in a footnote or in a bibliography or works cited page. Acknowledgment is required when material from another source stored in print, electronic or other medium is paraphrased or summarized in whole or in part in one's own words. Refer to Student Handbook for examples of plagiarism.

Temporary Closing Policy

Every effort will be made to keep the college open. However, should inclement weather or other emergencies necessitate closing the college or delaying the start of classes, the decision will be made between 5:00-5:30 a.m. and will be announced on the following:

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(This information is also posted on Southwestern's website www.swcciowa.edu)

Radio Stations

KSIB-KITR	Creston	AM 1520 FM 101.3
KOAK/KCSI	Red Oak	AM 1080 FM 95.3
KMA	Shenandoah	AM 960 FM 99.1
WHO	Des Moines	AM 1040 FM 100.3 FM 107.5
KJAN	Atlantic	AM 1220
KSOM	Atlantic	FM 96.5 and 95.7
KSOI	Murray	FM 91.9

Television Stations

KCCI-TV8	Des Moines
WHO-TV13	Des Moines
WOI-TV5	Ames/Des Moines
KMTV-TV3	Omaha
WOWT-TV6	Omaha
KETV-TV7	Omaha

2-Hour Late Start Information

When inclement weather causes the college to have a two-hour delay, the following procedures will be followed: If the two-hour delay occurs on a Monday, Wednesday or Friday, then classes will start at 9:40 a.m. (7:30 a.m. and 8:35 a.m. classes will not meet). Offices will open at 9:00 a.m. If the two-hour delay occurs on a Tuesday or Thursday, then classes will start at 9:00 a.m. (7:30 a.m. classes will not meet). Offices will open at 9:00 a.m. Career and Technical courses do not follow the same 1 hr./1 ½ hr. schedule. Please refer to your instructor for more details. Nursing 4 hr. class will start at designated late start time (9:40 a.m. or 9:00 a.m.). The college also utilizes text messaging through e2campus™ as another means to notify students, faculty and staff of important announcements. Please refer to the student handbook for information about this service.

Cell Phone Policy

The college believes in providing an environment conducive to learning. For this reason, cellular phone use should be kept to a minimum on campus and conducted in appropriate locations only. Cell phone users should be respectful of others.

1. Students are to turn cell phones off or to silent mode upon entering any classroom, computer lab, library or auditorium.
2. If necessary, students may conduct short, quiet cellular phone conversations in the hallways, away from doorways or outside of the buildings.
3. Cellular phones with picture taking capabilities are not allowed in locker rooms or weight rooms.
4. Faculty members have the right to limit the use of cell phones with picture taking and text messaging capabilities in their classrooms.
5. Students who fail to comply with the above regulations will be referred to the Dean of Student Services and will be considered in violation of the student code of conduct.

Children on Campus Policy

The college strives to maintain a quality learning environment and has established the following guidelines regarding children on campus.

1. Students will not be allowed to bring children with them in the instructional setting which includes, but is not limited to, the classroom, library, student center, etc.
2. When children are present on campus, they must be under the direct supervision of a parent, legal guardian, registered student or other authorized adult.
3. This policy does not intend to conflict with Southwestern's programs designed for the involvement of children. For example: 8th grade career day, youth-camps, business contests, vocational open house, etc.
4. Students who fail to comply with the above regulations will be referred to the Dean of Student Services and will be considered in violation of the student code of conduct.

Nondiscrimination Statement

Southwestern Community College prohibits discrimination on the basis of race, color, national origin, sex, disability, age in employment, sexual orientation, gender identity, genetic information, creed, religion, veteran status, associational preference and actual or potential parental, family or marital status in its programs, activities or employment and personnel policies and practices. Southwestern also affirms its commitment to providing equal opportunities and equal access to its facilities. Inquiries regarding compliance with the nondiscrimination policy and the appropriate grievance procedure may be directed to: Educational Equity Coordinator, Southwestern Community College, 1501 W. Townline St., Creston, IA 50801, 641.782.1456 or 800.247.4023, ext. 456.

Accommodations

Southwestern is committed to the regulations of the American with Disabilities Act in making reasonable accommodations for students, staff, or patrons of the College in accessing its facilities. Any student with a disability wanting to request accommodations should notify the College administration of his/her needs, and the College will do what is reasonable to effect changes and assist the individual in being successful in the College environment. Steps for obtaining such accommodations are listed in the Student handbook (Disability/Special needs at Southwestern). For further assistance regarding accommodations or to identify special needs, students should contact Deb Pantini, Director of Student Development, Administration Center, at 641.782.1458.

Emergency Notification Policy Statement

SWCC has a campus-wide emergency notification system (e2Campus) to send instant text messages and/or e-mail messages to all students, faculty, and staff who have elected to receive them. This system will be utilized to immediately notify the campus community upon the confirmation of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students or employees occurring on campus. This service also allows users to receive messages when classes are canceled and/or messages when the college is closed due to weather. With this system in place, SWCC can instantly and simultaneously distribute brief time-sensitive messages

in emergency situations. Although there is not one system that is 100 percent guaranteed effective, this is an important method of communication.

In order to alert students and employees that an emergency text has been sent, an Emergency Alert sound will be activated. This sound (as well as the tornado and fire alarm sounds) can be heard on the Emergency Notifications page on the SWCC Web site. If the **Emergency Alert sound** is activated on campus, students and staff should immediately check their text messages. Some carriers may charge for incoming text messages so keep this in mind should you decide to sign up. You may also sign up to receive the same messages via email with or without signing up your cell phone number. To sign up, students will need to log on to SWCC's Campus Connect system. New students will receive training on Campus Connect at Success Seminar, The College Experience course, and orientation.

Class Attendance Related to School-Sponsored Activities

- Students involved in activities (excluding practices) must give written notice to the instructor at least three days in advance of the anticipated absence.
- Students must be given the opportunity to independently make up course work or work of equal value for the day(s) the event was scheduled or to take a scheduled exam at an alternative time.
- Make up work that meets the agreed upon deadline will be graded as regular work.
- School-sponsored absences shall not result in a reduction in attendance or participation grades.
- If the scheduled event is canceled, students are expected to be in class as normal or they will be counted absent.

Syllabus Disclaimer Statement

This syllabus is representative of materials that will be covered in this class; it is not a contract between the student and the institution. It is subject to change without notice. Any potential exceptions to stated policies and requirements will be addressed by the instructor on an individual basis, and only for reasons that meet specific requirements.

(11/12/14)