

Advanced Sheet Metal Layout – Fall 2017

Course #: MFG K131, CRN 33046/33050

Instructor: John T. Genna, Jr
Office: Room C158
E-mail: jgenna@trcc.commnet.edu
Telephone: (860)215-9408

Class Hours: Thursday 3:45-9:51PM Room D108/D110
Office Hours: M 2:00 – 3:00PM
T 3:30 – 4:30PM
W 2:00 – 3:00PM
T 2:30 – 3:30PM
F By appointment

Required Text: None

Course Description:

In this continuation of the fundamentals course, students gain further skills in metal fabrication techniques. Advanced cutting and bending are covered. Through lab projects, they develop skills learned in previous classes, such as using blueprints and taking accurate measurements. Labs allow for experimentation with fabrication tools, especially automated devices, such as shears, lasers and press brakes, as well as those that use computer numerical control (CNC). Embedded in the course will be additional lessons on metallurgy, quality control, application of lean principals, and following work place standard operating procedures, such as work order instruction and employment standards.

Course Objectives:

Information covered in class and assigned projects is intended to further develop your knowledge of basic and advanced manufacturing fundamentals. This includes shop safety, materials, hardware and fabrication techniques including the proper use of hand tools, automated machinery and inspection equipment. This knowledge will be applied to hands on work of fabrication projects utilizing knowledge gained from this course, Sheet Metal Layout, Lean and Quality / Metrology.

1. Further develop and demonstrate necessary sheet metal fundamental knowledge and skills that are applicable to the manufacturing process.
2. Develop and demonstrate the ability to think critically and identify evaluate and solve technical and nontechnical problems.
3. Develop and demonstrate the ability to work independently and as a team.

Disabilities Statement:

Students with disabilities are guaranteed reasonable accommodation under the provisions of the Americans with Disabilities Act of 1992. Disclosure of a disability must be voluntary and initiated by the student. For further assistance, please contact Matt Liscum in the Office of Disability Services at 860.215.9265 or mliscum@threerivers.edu. Please note that an instructor cannot provide disability accommodations until a student provides the necessary paperwork from the college's Office of Disability Services.

Academic Integrity:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

Plagiarism:

Plagiarism is the unacknowledged use of another person's work or ideas in your writing. It is often known as copying word-for-word. However, even paraphrasing without acknowledgement or using the ideas of peers garnered from class discussion or a study group is considered plagiarism. Whether it is conscious or unconscious, plagiarism is a serious academic offense. Your writing for this course, and any other course at TRCC, is expected to be original, and the product of your own thinking. A student who has plagiarized will receive a ZERO on his/her assignment and may be reported to the Academic Dean and/or Student Services Dean for disciplinary action.

Technology Statement:

The use of cell phones or other technological devices is not permitted during class time, unless deemed appropriate by the instructor.

Electronic Learning Portfolios:

All students are required to maintain an online learning portfolio in [Digication](#) that uses the college template. Through this electronic tool students will have the opportunity to monitor their own growth in college-wide learning. The student will keep his/her learning portfolio and may continue to use the Digication account after graduation. A Three Rivers General Education Assessment Team will select and review random works to improve the college experience for all. Student work reviewed for assessment purposes will not include names and all student work will remain private and anonymous for college improvement purposes. Students will have the ability to integrate learning from the classroom, college, and life in general, which will provide additional learning opportunities. If desired, students will have the option to create multiple portfolios.

Email:

Correspondence by email is considered a method of formal communication. Emailing an instructor is not the same as emailing or texting a friend. Please use a proper salutation, complete sentences, punctuation, proper spelling and identify yourself by name in the body of the email. **Students must use their [college issued email account](#). College issued email is the official mode of communication used by the college to contact students.**

Class Cancellation:

To determine if the college is closed, please visit the TRCC webpage at <http://www.trcc.commnet.edu/> and/or sign-up for notification through MyCommNet ALERT.

College Withdrawal Policy:

Course withdrawals are accepted up until the week before classes end. Withdrawal forms are available online or at the Registrar's office. The withdrawal does not have to be signed by the instructor but it is strongly advised that you speak with your instructor before withdrawing. If necessary, you can withdraw over the phone by calling the Registrar's Office at 860.215.9064. Emails and faxes are also accepted. If you are receiving financial aid, it is strongly recommended that you contact the [Financial Aid Office](#) before withdrawing. Withdrawal may affect your financial aid for current and/or future semester(s). It is your responsibility to confirm that the withdrawal has been received.

The last day to withdraw from the Fall 2017 semester is December 11, 2017

Class Attendance and Homework:

Class Attendance is expected and vital (see Classroom Participation below). Missing class will negatively impact your grade. You are expected to arrive on time, be ready to take notes, participate in discussions and lab exercises.

****I do not accept late work in this class.**** If you know you are going to miss a class, please speak with me in advance to make appropriate accommodations. Your missed work will need to be turned in on the day you return to class after your excused absence.

Evaluation Criteria:

The following criteria will be considered in evaluating student performance:

- a. Attendance and class participation
- b. Weekly lab assignments
- c. Midterm and final exams

a. **Attendance and class participation**

Lateness and absences will have a negative impact on your grade. This class is comprised of lecture followed by lab. You can't gain the knowledge if you are not present when it is delivered.

b. **Weekly lab assignments**

There will assigned lab exercises throughout the semester. Please have them completed by the scheduled due date. Late assignments are not accepted.

c. **Midterm and final exams**

During the semester, there will be a midterm and final exam. Exams will consist of (but will not be limited to) multiple choice, short answer, true/false, matching, and practical exercises. Exams cannot be made up unless arrangements have been made with the instructor *prior* to the time of the exam.

Grade Computation:

The following is a breakdown of the final grade:

| | |
|-----------------------------------|-------------|
| a. Attendance/Class Participation | 10%. |
| b. Lab Assignments | 40% |
| c. Midterm | 25% |
| d. <u>Final Exam</u> | <u>25%</u> |
| TOTAL | 100% |

Grading Distribution:

| | | | |
|----|--------|----|-------|
| A | 94-100 | C | 73-76 |
| A- | 90-93 | C- | 70-72 |
| B+ | 87-89 | D+ | 67-69 |
| B | 83-86 | D | 63-66 |
| B- | 80-82 | D- | 60-62 |
| C+ | 77-79 | F | 0-59 |

Class Schedule (subject to change at instructor's discretion):

| <u>Week(s)</u> | <u>Topic</u> |
|----------------|-----------------------|
| 1 | Introduction, Review |
| 2-3 | Flat Layout for Punch |
| 4-5 | 3D to Flat Layout |
| 6-7 | Advanced 3D Layout |
| 8 | Midterm |
| 9-10 | Advanced 3D Layout |
| 11-13 | Assembly Project |
| 14 | Catch-Up Week |
| 15 | Final Exam |

FALL 2017 Standard 15 Week Session

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|-----------|--|
| Aug 28 | Registration deadline and last day to drop classes for full tuition refund |
| Aug 29 | Classes begin, add and drop periods begin |
| Sep 4 | Labor Day - college closed |
| Sep 4 | Last day for registered students to add a class - online (Sep 1 in person) |
| Sep 5-8 | Welcome Week |
| Sep 11 | Last day to drop classes and partial tuition refund |
| Sep 18 | Constitution Day observed (classes in session) |
| Sep 22 | Professional Day (classes in session) |
| Sep 26 | Last day to select audit option |
| Oct 17 | Reading Day *See Additional Notes |
| Oct 31 | Advising Day (classes in session) |
| Nov 1 | Continuing Degree-Seeking Student Registration for Winter '17 Intersession and Spring '18 Semester Advising day (classes in session) |
| Nov 7 | Last day to select pass/fail option, last day to submit incomplete work from Spring '17 and Summer '17 |
| Nov 15 | New Student and Non Degree-Seeking Student Registration for Winter '17 Intersession and Spring '18 Semester; and last day to apply for spring graduation (May '18) |
| Nov 22 | College open - no classes in session |
| Nov 23-26 | Thanksgiving recess |
| Dec 11 | Last day to withdraw from classes |
| Dec 18 | Last day of 15 Week Session |
| Dec 22 | Final grades due to Registrar's office |
| Dec 25 | Christmas Day - college closed |
| Dec 27 | Grades available on web |