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**REEDLEY COLLEGE – MANUFACTURING TECHNOLOGY**

**FALL 2016 MFGT 21 – #59005 & #59007 BLUE PRINT READING**

**2 Units, 9 weeks (08/26 - 10/14)**

**Friday: #59005 - 7:30 am to 12:45 pm**

**Friday: #59007 - 1:00 pm to 6:15 pm**

**Instructor:** Darrell Hirschler

**Phone:** (559) 638-3641 ext. 3477

**E-mail:** [darrell.hirschler@reedleycollege.edu](mailto:darrell.hirschler@reedleycollege.edu)

**Office:** IND 22

**Classroom:** IND 17

**Lab:** IND 19 & 24A

**Office hours: Tue/Thurs** 5:30 pm–6:00 pm, **Mon/Wed** 12:00 pm –1:00 pm & **Friday** 7:00 am-7:30 am

**Text Book:**

* **BASIC BLUE PRINTING AND SKETCHING** ; 9th Edition, Delmar Learning, Thomas P. Olivo

**Description:**

The Techniques of graphic interpretation, technical sketching, reading pictorial drawings and dimensioning systems.

**Expected Outcomes:**

1. Interpret blueprints using common manufacturing terms and conventions.
2. Identify different blueprint views and relate them to real world parts.
3. Determine the size, shape, type of material and finish requirements from standard manufacturing drawings.
4. Make sketches and working drawings with enough detail and dimensions to enable them to manufacture the part from their drawing.
5. Communicate part specifications using standard blueprint terminology

**COURSE OUTLINE:**

**Lecture Content:**

1. **LINES**

* Alphabet of lines
* Hidden Lines
* Center Lines
* Extension Lines
* Projection Lines

**2. VIEWS**

* One
* Two
* Three
* Auxiliary

**3. SKETCHING**

**•** Lines

• Basic Forms

• Pictorial Drawings

**4. WORKING DRAWINGS**

* Shop Drawings
* Notes

**5. DIMENSIONING**

* Size and location
* Arcs and angles
* Thread dimensioning and tolerances

**6. WELDING DRAWINGS**

* Representations
* Dimensioning
* Symbols

**7. CNC DRAWINGS**

* Datums
* Ordinates
* Dimensioning

**8. SKETCH OUTS**

* Parallel development
* Radial development

**Lab Content:**

* Creating Lines
* Views
* Sketching
* Working Drawings
* Dimensioning
* Welding Symbols

**\*NOTE: Content may be changed as deemed necessary by the instructor.**

**Basic Skills Advisories:**

Eligibility for English 126 and Math 101

**Prerequisites: None**

**Required Materials: \*Optional but recommended**

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| --- | --- |
| **#2 Pencil** | **Compass** |
| **Eraser** | **Protractor** |
| **Basic Calculator** | **Graph Paper & White Printer Paper** |
| **3-ring Binder w/ Lined Paper** | **Scan-Tron for Final #882E (50 front/50 back)** |
| **12” Ruler** | **\*Tape Measure (at least 12’)** |

**How class will be conducted:**

* Lecture/Discussion
* Instructor Demonstrations
* Practical Lab Assignments (Drawing)
* Quizzes
* Homework Assignments
* Final Exam**-** Friday 10/14/2016

**Attendance:**

* Arrive on time and prepared for class
* Attendance and participation is very important. You must attend class (on time and on a regular basis) in order to participate and complete the required work.
* Campus policy requires that all students who miss 2 consecutive weeks before the add/drop deadline to be dropped (2 class sessions for a 9 week class)
* Campus policy requires students who have nonconsecutive absences which total the equivalent of two or more weeks are subject to being dropped from the class.
* Two tardies are equivalent to one absence. If you are tardy you must check with the instructor to ensure you are not marked absent.
* Contact the instructor if you know you will be missing two classes.

**Grading Procedure:**

**Grades are based on your weighted combined points earned in Lab and Lecture:**

* Lab Assignments 25% of Grade
* Homework Assignments 25% of Grade
* Quizzes 20% of Grade
* Final 20% of Grade
* Participation 10% of Grade

**Grades are calculated on the total amount of weighted points available.**

100% - 90% = A 89%-80% = B 79%-70% = C 69%-60% = D 59% - 0% = F

**Essential Information:**

* You are responsible to bring required tools and materials to class.
* Do not leave the classroom or shop area without the instructor’s permission.
* Leave anything that is not yours or associated with the classwork/labs alone.
* Any assignment turned in up to one week late will receive 50% credit.
* Home work will not be accepted more than two weeks late.
* There are no excused absences.
* In the event of class being cancelled you will be notified by a sign on the door.
* If you carry a cellphone, please be respectful and set to vibrate before class starts.
* Cell phones, computers and other devices are off and out of site during tests.

**IMPORTANT DATES:**

AUGUST 15 M START OF FALL SEMESTER

AUGUST 15 - OCT 14 M-F SHORT TERM CLASSES, FIRST NINE WEEKS

AUGUST 26 F LAST DAY TO DROP A FULL-TERM CLASS FOR REFUND

SEPTEMBER 2 F LAST DAY TO REGISTER FOR A FULL-TERM FALL CLASS

SEPTEMBER 2 F LAST DAY TO DROP A FALL FULL-TERM CLASS TO AVOID A W

SEPTEMBER 5 M LABOR DAY (NO CLASSES HELD)

SEPTEMBER 9 F LAST DAY TO CHANGE FROM A PASS TO A NO PASS

OCTOBER 14 F LAST DAY TO DROP A FULL-TERM CLASS

OCTOBER 17 - DEC 16 M-F SHORT TERM CLASSES, SECOND NINE WEEKS

NOVEMBER 11 F VETERANS DAY (NO CLASSES HELD)

NOVEMBER 24 - 25 TH-F THANKSGIVING HOLIDAY (NO CLASSES HELD)

DECEMBER 12 - 16 M-F FINAL EXAM WEEK

DECEMBER 16 F SEMESTER ENDS

DECEMBER 17 - JAN 8 M-W WINTER BREAK (NO CLASSES HELD)

**Academic Dishonesty:**

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Cheating, plagiarism, and collusion are dishonest activities and erode the integrity of the college. Each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences. Plagiarism or cheating of any kind will result in a grade of “F” for the course.

**Having Trouble?**

If at any time you find you are having trouble succeeding in this course whether because of a change in your life circumstances or because of something you do not understand about the material – please see me. There are a number of services available to assist Reedley College students to succeed in their course work. I would be happy to recommend one of these to you.

**Accommodations for students with disabilities:**

If you have needs as addressed by the Americans with Disabilities Act (ADA), or Section 504 of the Rehabilitation Act, please notify me immediately. Reasonable efforts will be made to accommodate your needs.

**Keep track of returned work.**

You should save all of your work until the end of the semester so you can double check the final grade earned as recorded by the instructor.

Assignment Sheet

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| --- | --- | --- | --- | --- | --- |
| Week | SECTION | UNIT | ASSIGNMENT | PAGE(S) | QUESTIONS |
| 1 | Lines | 2 –Alphabet of Lines | Pressure Pad (BP-2) | 12 | 1-7 =  11 pts. |
| 1 | Lines | 3- Hidden Lines & Center Lines | Cam Plate (BP-3) | 15 | 1-10 =  10 pts. |
| 1 | Lines | 4- Extension Lines and Dimension Lines | Angle Brace (BP-4A) | 17 | 1-9 =  9 pts. |
| 1 | Lines | 4- Extension Lines and Dimension Lines | Corner Plate (BP-4B) | 18 | 1-12 =  12 pts. |
| 1 | Lines | Units 2-4  Extension Lines and Dimension Lines |  | Reference  10-11, 13-14 & 16 | Homework  Assignment  25 pts. |
|  |  |  |  |  |  |
| 2 | Views | 5- Three-View Drawings | Angle Bracket (BP-5A) | 24 & 25 | 1-20 =  22 pts. |
| 2 | Views | 5- Three-View Drawings | Cross Slide (BP-5B) | 26 & 27 | 1-24 =  24 pts. |
| 2 | Views | 6- Arrangement of Views | Block Slide (BP-6) | 30 | 6 pts. |
| 2 | Views | 7- Two-View Drawings | End Shaft (BP-7A) | 34 & 35 | 1-20 =  20 pts. |
| 2 | Views | 8 – One-View Drawings | Shoulder Pin (BP-8A) | 42 & 43 | 1-15=  15 pts. |
| 2 | Views | 9- Auxiliary Views | Shaft Support (BP-9) | 48 & 49 | 1-20 =  22 pts. |
| 2 | Views | Units 5-8  Views | **Ammo Box**  **\*Sketch & 3-view drawing** | Reference  19 -23 | Homework Assignment  25 pts. |
|  |  |  |  |  |  |
| 3 | Sketching lines and basic forms | 31-Sketching Horizontal, Vertical, and Slant Lines | Punch Plate  Assignment A | 194 & 195 | Assignment A  10 pts. |
| 3 | Sketching lines and basic forms | 32- Sketching Curved Lines and Circles | Shaft – BP-32A | 200 & 201 | Assignment A  10 pts. |
| 3 | Sketching lines and basic forms | 33 – Sketching Irregular Shapes | Tool Block (BP-33) | 208 & 209 | Assignment – Unit 33  10 pts. |
| 3 | Sketching lines and basic forms | Units 31 – 33  Sketching lines and basic forms | **Shop Table**  **\*Sketch & 3-view drawing** | Reference 191,192& 193 | Homework Assignment  25 pts. |
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| 4 | Dimension & Notes | 10 – Size and Location Dimensions | Die Shoe (BP-1-10) | 54 & 55 | 1-3=  13 pts. |
| 4 | Dimension  & Notes | 11 – Dimensioning Cylinders, Circles, and Arcs | Gear Arm (BP-11) | 60 & 61 | 1-7=  12 pts. |
| 4 | Dimension  & Notes | 12 – Size Dimensions for Holes and Angles | Sliding Support (BP-12) | 66 & 67 | 1-25=  25 pts. |
| 4 | Dimension& Notes | 13 – Location Dimensions for Points, Centers, and Holes | Coupling  (BP-13) | 70 & 71 | 1-25=  27 pts. |
| 4 | Dimension & Notes | Units 10-13  Dimensions and Notes | **Leaf Spring Plate**  **\*Sketch & 2-view drawing** | Reference  62 & 63 | Homework  Assignment  25 pts. |
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| 5 | Dimension & Notes | 14 – Dimensioning Large Arcs and Base Line Dimensions | Base Plate (BP-14) | 74 & 75 | 1-20=  28 pts. |
| 5 | Dimension & Notes |  |  |  |  |
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