

<b>INSTRUCTOR:</b>	JAMES LANGLEY	<b>E-MAIL:</b>	jlangley@alvincollege.edu
<b>OFFICE:</b>	N109	<b>PHONE:</b>	281-756-3784
<b>OFFICE HOURS:</b>	MONDAY THROUGH THURSDAY 4:30PM-6:30PM / FRIDAY 9:00AM-11:00AM		
<b>WEBSITE:</b>	<a href="http://www.alvincollege.edu">www.alvincollege.edu</a>		

**WELCOME TO:**

**Course Title: MACHINE DESIGN**

**Course Number: DFTG 2406 HY60**

**Credit Hours: 4**

**Lecture Hours: 2**

**Lab Hours: 6**

**Total Contact Hours: 128**

**Term and Year: SPRING 2017**

**Class Days & Times: Mondays – Lecture: 6:30pm – 7:50pm / Lab 8:00pm – 9:20pm**

**Classroom Location: N108**

**A. COMMUNICATING WITH YOUR INSTRUCTOR**

The preferred method of communicating with your instructor is through the ACC email or you may call me at 281-756-3784.

Please leave your first and last name, a phone number or an e-mail address where I can contact you and explain what you need to discuss with me.

**B. COURSE DESCRIPTION**

Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components.

**C. STUDENT LEARNING OUTCOMES**

Utilize the steps used in the design process, terminology, mechanical processes to produce drawings.

**D. PRE-REQUISITE COURSES:**

DFTG 1433 Mechanical Drafting

**E. REQUIRED TEXTBOOK AND SUPPLEMENTAL READINGS**

None

For more information about the textbooks, including details about how to order your book online and have it delivered to you, visit the ACC College Store at [www.alvincstore.com](http://www.alvincstore.com).

**F. COURSE OUTLINE**

WEEK 1      JAN 23      COURSE INTRODUCTION

WEEK 2      JAN 30      DESIGN PROCESS

WEEK 3	FEB	6	PRINCIPLES OF MECHANISMS
WEEK 4	FEB	13	POWER TRANSMISSION - GEARS
WEEK 5	FEB	20	POWER TRANSMISSION - CAMS
WEEK 6	FEB	27	POWER TRANSMISSION - PULLEYS
WEEK 7	MAR	6	STRESS ANALYSIS USING SOLIDWORKS SIMULATION
WEEK 8	MAR	13	SPRING BREAK
WEEK 9	MAR	20	EXAM
WEEK 10	MAR	27	STRESS CONCENTRATION
WEEK 11	APR	3	INTERFERENCE FIT & CONTACT ANALYSIS
WEEK 12	APR	10	WELDMENTS
WEEK 13	APR	17	HOLIDAY
WEEK 14	APR	24	DESIGN OPTIMIZATION
WEEK 15	MAY	1	FINAL EXAM REVIEW
WEEK 16	MAY	8	FINAL EXAM

## **G. EXAMS AND MAJOR ASSIGNMENTS**

There will be lab assignments given for the material covered within the course. The lab assignments are to be completed during lab time. Each lab assignment varies in points and will be graded via Blackboard. There will be home assignments given for the material covered within the course. The home assignments are to be completed and submitted by the date given on Blackboard. Each home assignment varies in points and will be graded via Blackboard. There will be 2 exams given for the semester. Each exam will cover material covered within the course. Each exam is 100 points each and will be graded via Blackboard. Exam dates will be on Blackboard. All exams are to be taken in the Industrial Design Technology lab.

## **H. POLICIES ABOUT COURSEWORK AND DEADLINES**

Lab assignments are due at the end of the lab time. Home assignments and exams with due dates will be posted on Blackboard. **NO LATE OR INCOMPLETE LAB ASSIGNMENTS, HOME ASSIGNMENTS OR EXAMS WILL BE ACCEPTED.** Missing labs, home assignments and exams will be given a grade of zero. Lab assignments, home assignments and exams will be submitted in Blackboard. Do not email your assignments.

### **COURSE WORK SECURITY**

Be sure to back up all of your work on additional devices (flash drives, computers etc.) Software, computer, flash drive, internet, or Blackboard errors and/or mishaps will not be an excuse for late or missing course work. **ALL COURSE WORK WILL BE DUE ON THE DUE DATE GIVEN!** Just to be safe, attempt to submit home assignments at least 24 hours before the due date. It is your responsibility to know the due dates and times.

## **I. GRADING SUMMARY**

Grading System:  
90-100 A

80-89 B  
70-79 C  
60-69 D  
Below 60

**Grade Break-Down:**

Total Lab Assignment points + Home Assignment points + Total Exam Points = Total Points Earned  
(Total Points Earned / Total Possible points) x 100 = Final Grade

**J. WITHDRAWING FROM CLASS/COLLEGE**

It is recommended that the student talk to the instructor before withdrawing. Current course withdrawal information can be found in the printed version of the ACC Schedule for this semester or online at [ACC Course Withdrawal Instructions](#). Students who file withdrawal requests by the published deadline and have not exceeded the withdrawal maximum will receive a grade of W.

**Six Drop Limit**

The Texas Legislature passed a ruling that limits the number of classes a student can drop during their years as an undergraduate student to six. This policy applies to any student who was a first time college freshmen fall, 2007, or later, who attends a Texas public institution of higher education. Courses dropped while attending a private or out of state college do not count toward the six drop limit. For further information, refer to the [ACC Catalog](#) or contact Student Services.

**K. GRADE APPEAL PROCESS**

Students have one year from the date of the grade assignment to challenge a grade. Refer to the grade appeal process as published in the ACC Catalog at <http://www.alvincollege.edu/Programs-Degrees/Course-Catalogs>.

**L. CLASS ATTENDANCE POLICY**

Alvin Community College students are required to attend classes. If an absence is unavoidable, the student is responsible for completing all work missed during the absence. Instructors will not withdraw students for non-attendance, except in developmental courses. Absences in excess of two weeks are to be reported to the Office of Advising Services, along with appropriate recommendations. Departments and faculty may have other attendance policies for their course.

**M. CODE OF ACADEMIC INTEGRITY AND HONESTY**

Alvin Community College students are members of an institution dedicated to the pursuit of knowledge through a formalized program of instruction and learning. At the heart of this endeavor, lie the core values of academic integrity which include honesty, truth, and freedom from lies and fraud. Because personal integrity is important in all aspects of life, students at Alvin Community College are expected to conduct themselves with honesty and integrity both in and out of the classroom. Incidents of academic dishonesty will not be tolerated and students guilty of such conduct are subject to severe disciplinary measures.

**N. CLASSROOM PROTOCOL**

It is the right of each student to participate in his or her learning, and it is the responsibility of each student to not interfere with the learning of other students. It is the expectation of the college that each student assumes the responsibility to follow college policies and procedures governing classroom conduct on campus and online. This information is published in the ACC Student Handbook on page 42.

**O. EVALUATION OF INSTRUCTION**

Alvin Community College is dedicated to student success. As part of its ongoing improvement efforts, students will provide input for each course prior to the end of the semester enrolled. Evaluations will be completed in either online or paper format as directed by the Office of Institutional Effectiveness & Research.

**P. ACC ACADEMIC SUCCESS AND SUPPORT SERVICES**

The [ACC Tutoring/Learning Lab](#), located upstairs in building A, provides students with a variety of services including tutoring (math, writing, and other disciplines); computers and printers; and tables/carrels. Call 281-756-3566 or visit the **ACC Tutoring/Learning Lab Website** for more information.

The [ACC Library](#) is an excellent source for research and writing help. Quiet rooms are available for studying and doing class work. For more information, visit the **ACC Library Website** or call 281-756-3559.

[ACC Counseling Services](#) assist students with issues that may negatively impact academic success. To contact a counselor, call the office of Advising Services at 281-756-3534.

#### **Americans with Disabilities Act**

ACC complies with ADA and 504 Federal guidelines by affording equal access to individuals who are seeking an education. Students who have a disability and would like classroom accommodations must register first with the Office of Disability Services, A 136, or call 281-756-3533. Instructors are not able to provide accommodations until the proper process has been followed.

#### **Assessment and Care Team (ACT)**

The Assessment and Care Team is committed to improving community safety through a proactive, collaborative, coordinated, objective, and thoughtful approach to the prevention, identification, assessment, intervention and management of situations that pose a threat to the safety and well-being of the campus community. To educate and empower all members of the College community, resources and procedures are in place to prevent, deter, and respond to concerns regarding acts of violence. Alvin Community College offers assistance to departments and individuals in detecting indicators for concern and resources to protect themselves and their environments.

The Alvin Community College ACT accepts reports regarding any individual or incident at any time through an online referral form on the Assessment and Care Team page at <http://www.alvincollege.edu/ACT>, direct email to: [ACareTeam@alvincollege.edu](mailto:ACareTeam@alvincollege.edu), or by contacting the Alvin Community College Police Department at 281-756-3700 or 832-250-3365 (after hours).

[MY Blackboard](#) support can be obtained by completing the **Online Support Form**.

**WEBACCESS, Passwords or ACC Computer Lab Information:** If you experience problems with WebACCess, please call the Help Desk at 281-756-3544 or email [helpdesk@alvincollege.edu](mailto:helpdesk@alvincollege.edu).

#### **Q. MENTAL HEALTH COUNSELING AND SUICIDE PREVENTION SERVICES**

As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating, and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. Advising services employs two Licensed Professional Counselors who can assist students with issues that negatively impact academic success. Consultation and referrals are confidential. The Counseling Referral form is located at: <http://www.alvincollege.edu/CounselingServices.aspx>

#### **Emergencies:**

If you or someone you know at ACC feels overwhelmed, hopeless, depressed, and/or is thinking about dying by suicide, supportive services are available by requests at the Enrollment Services Center or by calling 281-756-3531, ask for a Counselor. You may also call the National Suicide Prevention Hotline 1-800-273-8255. This is a 24 hour, toll free, confidential suicide prevention hotline available to anyone in suicidal crises or emotional distress. If, however, you or someone you know is in an immediate crisis, go to the nearest Emergency Room, or call 911.

#### **R. DISCLAIMER**

(The instructor reserves the right to modify this syllabus as needed and will notify the students of any changes using email or Blackboard.)