San Diego Community College District  
Miramar College  
Course Syllabus  
Fall 2010

Instructor: Wheeler North  
Hours: 1:00PM - 2:00PM Mondays
Location: F108 D  
Telephone: Office: (619) 388-7662 Tool Crib: (619)388-7305 Voice Mail:(619) 388-7662  
E-Mail: wnorth@sdccd.edu

Course Title: Aircraft Landing Gear

Subject Area and Course Reference Number:
Aviation Maintenance Technology 103D   CRN  43781

Class Meets: Lecture: 7:00 AM - 9:50 AM Mondays Room F106 3 hours 3 units

Catalog Course Description:
The study of inspection, checking, servicing and repair of landing gear and retraction systems, shock struts, wheels, brakes, tires and steering systems. The inspection, checking troubleshooting, servicing, and repair of speed and take-off warning systems, electrical brake controls, anti-skid systems, landing gear position indicating and warning systems. Ref. (FAR 147 Appendix C: Section II, Subjects A,H)

Course Objectives:
Successful completion will enable the student to demonstrate with entry level proficiency, knowledge of, and manipulative skills in diagnosing, servicing, and repairing landing gear and retraction systems, shock struts, wheels, brakes, tires, steering systems, speed and take-off warning systems, electrical brake controls, anti-skid systems, landing gear position indicating and warning systems. Successful completion will enable the student to meet the standards for the Federal Aviation Administration comprehensive testing, leading to an Airframe Mechanic certificate.

Evaluation:
A. Lecture Course grade determined on the following criteria:
   1. Tests = 40%
   2. Quizzes = 10%
   3. Homework and required notebook = 20%
   4. Final Exam = 30%

B. Test and Quizzes will be given at various stages throughout the course. There will be a minimum notice of one class period. Homework due dates will be announced in class when they are assigned. Required Notebook will be due on the day of the final exam.
C. A maximum grade of 70% will be given for all make-up tests and/or projects as a result of unexcused absence. There will be no make-up for Quizzes. (The current College Catalog is a legal extension of this syllabus).

D. Federal Aviation Regulation requires that all grades and attendance be recorded and maintained on file subject to Federal Audit. A copy of the Course Record Sheet used to fulfill this regulation is attached. A student may review this document upon request at any time.

E. Time cards are used to document makeup attendance, failure to punch in and/or out will result in the loss of that time. Time cards must have the student's name and the course title, in ink, and a Program Instructor's signature with every "start" and "stop" time-clock entry stamp. It is required that students document makeup time on one time card per student per course. All makeup time must be spent working on coursework. Time can be made up under the supervision of any Program Instructor, who may assign makeup activities at their discretion. Make-up time may not be "banked" ahead of the missed time. Time cards will be turned in on the day of the Final Exam.

F. All tests, written assignments, lab projects, and final exams are MANDATORY. If any class assignments, projects, test/exams or Federal time minimums are not completed by the end of the semester an "I" incomplete grade may be issued. If the missing work/time is not completed within one year of the end of this semester a less than satisfactory grade will be issued. Course repetition will not remove an incomplete. Copies of these records will be maintained by AMT Dept. for the FAA required period of time.

G. As per SDCCD and FAA requirements students may not miss any class time. You must make up any time missed. The instructor may elect to drop or issue a failing grade to any student who has missed more than 6% of the total class time and the student will be dropped or issued a failing grade if they have more than 12% accumulated missing time. Missed time must be made up by prior arrangement with any Program Instructor. Makeup time may not be "banked" ahead of the missed time. Any student who is late or leaves early in combination three or more times will be dropped from the course or will receive a failing grade if this limit is exceeded after the final drop date. Exceptions to this limit may be made by prior arrangement with the instructor limited to two exceptions and any excused tardiness may not exceed ½ hour. All missed time must be made up per the make-up requirements included in this syllabus (Item E). Withdrawal add/drop dates may be found in the college catalog or online class schedule at http://schedule.sdccd.edu/

H. Homework not turned in by the due date will receive a maximum of 70%. Any homework turned in after the end of the week before finals will receive a grade of zero. Regardless of grades received, all assigned homework is mandatory and must be at least a 70% quality for a final passing grade in the course.

I. NOTICE: For safety and the protection of property, video monitoring equipment is being utilized in this facility.

J. Inappropriate utilization of these facilities, to include all shop equipment, buildings, furniture, computer equipment etc. is grounds for dismissal from class and disciplinary action by the appropriate authorities. This can include, but is not limited to unescorted presence in secure areas such as the tool room or faculty office areas, kicking or slamming doors and furniture, modifying settings or software on computing equipment, inappropriate utilization of Internet access such as adult or hate websites, chat rooms or other activities as deemed inappropriate by District policies.
**Method of Instruction:**
Lecture, demonstration and class discussion, supported by various forms of audio-visual and multi-media aids.

**Text and Supplies:**
Fluid Power for Aircraft; Kamair Publications Merril, Kroes, Mick (optional)
FAA Advisory Circular AC 65-15A
FAA Advisory Circular AC 43.13-1B/2A
Federal Aviation Regulations for Mechanics
Three-ring loose leaf binder
Pen and #2 Pencil
Scantron Test Answer Sheets

**Calendar**
For better retention and understanding of the materials to be covered it is recommended to complete reading assignments prior to class time. Students will be expected to know and understand information contained in these assignments. The following assignments are general in nature, student’s are expected to be able to locate and study the appropriate sections in the required texts to prepare for each lecture session. Additionally it is suggested that students review the “Internet” notes listed below prior to each session.

<table>
<thead>
<tr>
<th>Week#</th>
<th>Subject</th>
<th>Recommended Reading assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>AC65 15A Cpt 9</td>
</tr>
<tr>
<td>2</td>
<td>Suspension</td>
<td>AC 43.13-1B Cpt 9 - Sec 1, 2A Cpt 5</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Fluid Power Cpt 10</td>
</tr>
<tr>
<td>4</td>
<td>Test #1</td>
<td>AC65 15A Cpt 9</td>
</tr>
<tr>
<td>5</td>
<td>Retraction</td>
<td>Fluid Power Cpt 11</td>
</tr>
<tr>
<td>6</td>
<td>Steering</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Test #2</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Brakes</td>
<td>AC65 15A Cpt 9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>AC65 9A Cpt 6</td>
</tr>
<tr>
<td>11</td>
<td>Actuators</td>
<td>Fluid Power Cpt 9, 11, 12</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>AC 43.13-1B Cpt 9 Sec 2</td>
</tr>
<tr>
<td>13</td>
<td>Test #3</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Wheels and Tires</td>
<td>AC65 15A Cpt 9 All written assignments due</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td><strong>Final Examination</strong></td>
<td>(notebooks due)</td>
</tr>
</tbody>
</table>
Additional Notes:
Notebooks are required and due at the beginning of the final. Notes must be in ink or typed. They may not be produced from any source other than personal student notes taken in class, from the AMT103D website, or from the assigned reading material. They should be organized, and should include all class materials, handouts, projects, and written assignments, except for those not yet returned.

Course Website:
http://faculty.sdmiramar.edu/faculty/sdccd/wnorth/index.asp
This website is posted as an addendum to some of the Miramar Aviation classes. Students are encouraged to use these resources to assist their learning process. Directly downloading any unauthorized material for reproduction, such as course notes, from this site is a copyright infringement and is grounds for dismissal from this class. You may use this site to complete, confirm or add to course notes taken in class. These notes are a framework for the course and the student is expected to include additional material from course discussion, homework, and reading assignments. It is expected that students will have prepared for each class session by reading appropriate texts, and pre-reviewing course notes. Due to the compressed calendar course content will be covered at a rate that requires you to come to class prepared.
The instructor reserves the right to change the above Syllabus and schedule with prior notice.

Writing Assignments:

1. Describe the requirements for landing gear position indicating and warning systems used in civilian certificated aircraft. Provide a reference for the requirements.

2. Provide a list of ten (10) brake malfunctions in independent brake systems. Describe each malfunction in detail, including the symptoms, conditions or causes, and acceptable corrections for each problem.

3. A notebook covering all materials pertaining to the course.

NOTE #2: All writing assignments shall be typed or written legibly in ink. Each assignment is to be completed by you, not by anyone else, nor is it to be plagiarized from any other source such as the internet. If you do use verbiage from another source for clarification, put it in quotes and properly site the source as per MLA Writers’ Guide.

NOTE #3: The writing assignments will not be completed in the order listed above but as assigned by the instructor.