



Mt San Antonio College

Aeronautics & Transportation, 1100 N Grand Ave, Walnut CA 91789
(909) 594-5611 Ext 3098

TO: Interested Students

This is in answer to your inquiry regarding our college. Our aeronautics program is the largest two-year college program of its type in California and is nationally recognized as one of the finest. Currently, approximately 260 students are enrolled in our aeronautics courses.

College credit for flight training is available through concurrent enrollment in our flight courses, but flying is not required to obtain any of the degrees within our department. We sponsor the Mt SAC Flight Training Association, which owns and operates training aircraft at College Aviation, our flight facility at nearby Brackett Airport. Additionally, the Mt SAC Flying Team competes with other colleges throughout the nation in aeronautics events, giving our students an opportunity for exceptional professional experience. Our ATC training program is FAA approved (CTI Program).

Mt SAC is designed for commuting students – no college dormitories are available. California residents are subject to course and material fees that typically total slightly over \$300 per semester for full-time students, but residents of other states and international students pay approximately \$2900 per semester. I suggest that you review our College Catalog early in your planning for important information about admission, registration, and general education course requirements. Your local library should have a copy, but you can download your own copy by visiting the Mt. SAC web page at:

<http://www.mtsac.edu/catalog>

Once you have reviewed the enclosed materials, feel free to contact me if there are any areas in which I may be of any further assistance. My email address is rrogus@mtsac.edu. Good luck with you aviation career!

Robert Rogus
Chairman
Aeronautics and Transportation

This packet is available for download at <http://aeronautics.mtsac.edu>

Department of Aeronautics & Transportation

Commercial Flight and Air Traffic Control Student Handbook

Handbook Contents:

- Employment Opportunities
- Laboratory Facilities
- The Southern Illinois University Connection
- The A.S. Degree
- A.S. Degree in Commercial Flight
- A.S. Degree in Aviation Science (ATC)
- Flight Training
- FAA Written Exams
- Mt SAC Flight Training Association
 - Who Can Join?
 - What are the Costs?
 - How Do I Join?
- Mt SAC Flying Team
 - What are the Competitive Events?
 - Who is Eligible?
 - How do I Join?
- University Transfer Programs
- Credit for Prior Aviation Experience: Bypassing Courses
- Military Educational Planning
- Departmental Activities
- FAA Air Traffic Control Hiring Procedures
- Simulator Training
- Financial Aid
- FAA Pilot Certificates and Ratings

January 2007

**Mt San Antonio College
Walnut CA**

This handbook is designed for students in the A.S. Degree programs in Commercial Flight and Aviation Science (ATC-CTI). Our department is the largest of its type in the state of California, and it is one of the finest aviation programs in the nation. Mt SAC is well known among professionals throughout the field of aviation. For details and the latest information about our aviation programs, visit our web site at:

<http://aeronautics.mtsac.edu>

To obtain our complete Aeronautics and ATC Student Information Packet or to seek answers to specific questions, contact our department office at:

Email: rrogus@mtsac.edu

Telephone: (909) 594-5611, ext. 3098

Employment Opportunities

Aviation is an exciting and challenging career field, and employment opportunities are varied. Pilot opportunities are dependent upon economic cycles, so students pursuing careers as professional pilots should plan their academic career with some flexibility to assure a backup skill. For example, most pilot opportunities require a four-year degree, so a student might prepare for aviation at Mt SAC while simultaneously working on a four-year degree through a college transfer program. Air traffic controllers do not require a four-year degree, but an age limitation is established by the Federal Aviation Administration – new controllers must not exceed age 30 at time of first employment by the FAA. Additional information regarding FAA Air Traffic Control employment requirements may be found in later portions of this handbook, with details in our ATC Student Handbook Supplement.

Many of our students enter the military as the route to an aviation career. Military pilot applicants need no advance flight experience. Mt SAC has a cooperative Air Force ROTC program in conjunction with Cal State University, San Bernardino.

Laboratory Facilities

Our primary laboratories are located in 28B-112. An ATC Tower Simulator and flight simulators (officially designated as flight training devices) provide realistic career training. Our flight simulators are available to students enrolled in any of our courses. We offer simulator instruction as part of our non-credit simulator labs (hourly instruction) and as basic and advanced credit labs which include complete structured agendas. We utilize both the single-engine Elite PC-ATD and the advanced multi-engine ATC-810 simulator. Enrollment in the non-credit simulator labs is conducted through the Community Services Office in Bldg. 4.

The Southern Illinois University Connection

Southern Illinois University program is an accelerated bachelors degree program in Aviation Management, held in our classrooms at Mt San Antonio College. Students completing the A.S. degree at Mt SAC (with special attention to the specific details of SIU general education requirements) can enter the SIU B.S. degree program in Aviation Management immediately after completion of their A.S. degree. With the A.S. degree and general education requirements met prior to entry to the SIU program, the B.S. degree is completed in 16 months in our Mt SAC aeronautics classrooms.

Classes are in a weekend format, allowing students to pursue full-time jobs while completing their B.S. degree. Southern Illinois University is one of the nation's leaders in aviation education, and Mt SAC is privileged to have such a unique university connection on our campus. For further information regarding this program, visit our web site:

<http://aeronautics.mtsac.edu>

An SIU program advisement office is available on our campus adjacent to our Aeronautics department office. For further details regarding this program contact:

Email: jeannes@siu.edu
Telephone: (909) 594-5611, ext. 4800
MSAC-SIU Office: Bldg. 28B, Room 101-H

The A.S. Degree

Graduation Requirements

A minimum of 60 units of credit is required for graduation. In our programs, approximately half of those units are within your selected major. All courses within your major must be completed with a minimum grade of "C". There are also residency requirements and a variety of college A.S. degree completion procedures that require your attention. Consult the college catalog for details, and then discuss your requirements with a counselor in the Student Center.

General education requirements outside of the Department of Aeronautics and Transportation include a minimum of 24 units from a list specified in the college catalog. Since this list changes regularly, students may graduate under the criteria of the list that is current at the time of graduation or under the list that was current at the time of entry to the college. All students must file a petition for graduation with the Admissions and Records Office at least two months prior to expected graduation date.

ATC & Commercial Flight - Complimentary Programs

Students do not need to decide on whether they desire the A.S. degree in Commercial Flight or Aviation Science (ATC) until at least the second semester of study. The first semester courses are normally the same. If you are unsure of your major, you might consider taking courses that apply to the requirements of both A.S. degrees until you make your decision.

Dual majors are also possible but involve extra courses. The similarities of these two fields make a dual major in Aviation Science (ATC) and in Commercial Flight practical. Dual majors require an additional 20 units beyond the original 60 units required for the first degree.

A.S. Degree in Commercial Flight

Courses required in our department have been arranged below in a recommended sequence. This sequence is only one of the many ways that the requirements can be met, but it does assure all prerequisites are met along the way. Our college catalog provides course descriptions and details regarding prerequisites. General education course requirements must be completed in conjunction with the courses listed below.

Semester A

AERO 23	Primary Pilot Ground School	4 units
AERO 26	Aviation Weather	3 units
AERO 29	Federal Aviation Regulations	2 units

Semester B

AERO 25	Commercial Pilot Ground School	3 units
TRAN 17	Air Transportation	3 units

Semester C

AERO 27	Aviation Safety & Human Factors	3 units
AERO 28	Aircraft & Engines	3 units

Semester D

AERO 24	Navigation	3 units
AERO 30	Instrument Ground School	3 units
		—————
		27 units

A.S Degree in Aviation Science

The A.S. Degree in Aviation Science prepares our students for air traffic control careers. The recommended sequence of courses listed below does not include the general education courses required for the A.S. degree. Consult our college catalog for these requirements. It is recommended that you integrate your general education courses into your course schedule carefully, since these courses fill faster than our aviation courses.

Semester A

AERO 23	Primary Pilot Ground School	4 units
AERO 26	Aviation Weather	3 units
AERO 29	Federal Aviation Regulations	2 units

Semester B

TRAN 17	Air Transportation	3 units
CIS B11	Computer Information Systems	3.5 units
AIRT 41	Aircraft Recognition and Performance	2 units

Semester C

AERO 27	Aviation Safety and Human Factors	3 units
AIRT 42	Air Traffic Control Environment	3 units

Semester D

AERO 24	Navigation	3 units
AERO 30	Instrument Ground School	3 units
AIRT 43	Air Traffic Control Team Skills	1.5 units
		—————
		31 units

Flight Training

Our college offers flight training in conjunction with our aeronautics academic program, but participation is not a required part of the A.S. degree. Many of our students desire to pursue flight training as part of their career preparation. Commercial Flight majors need such training for all civilian pilot occupations, and some flight training is highly desirable before entering military pilot training programs. ATC majors find such flight training extremely helpful in their career development.

Flight training is available through College Aviation, Mt SAC's own flight school that provides flight instruction in college-owned aircraft. College Aviation is a service provided to Mt SAC students enrolled in our credit programs. Interested students are required to join the Mt SAC Flight Training Association, a student organization that has competitive application procedures due to limited membership slots. Entry to our flight program is not guaranteed by admission to our academic program. Students compete via application each semester for available flight training slots.

Many students pursue flight training while enrolled in AERO 40 (Flight class) and earn college credit for their flying. The college's Flying Team is designed for serious students who desire to increase their skills by competition with other aeronautics colleges. The Mt SAC Flying Team has the financial backing of the college's Associated Student Body and the local community. Some student flying expenses can be reimbursed. Many of our best students get involved with the Flying Team even before they become qualified in flight events by participating in ground events. Perfection of aeronautics skills is the goal of the Flying Team, and such goals enhance formal flight training. A Private Pilot certificate is required for Flying Team flight events, but ground events have no minimum qualifications.

FAA Computerized Knowledge Exams

At the end of each semester our students take their FAA Computerized Knowledge Exams (written examinations) for the Private, Commercial, and Instrument Pilot at our on-campus FAA Testing Facility (Bldg. 6). These exams are valid for a period of two years. The FAA exams are administered at times appropriate for students completing course work in aeronautics specialties. Since our programs cover all aspects of the FAA required material, no additional study for these exams is required. FAA licensing regulations require completion of these FAA exams prior to completion of the applicable flight test.

Mt SAC Flight Training Association

The Flight Training Association is a nonprofit organization that provides aircraft to our students for the purpose of flight training. Flight training is supervised by the Department of Aeronautics & Transportation at Brackett Airport through our own flight training facility (College Aviation).

Who Can Join?

Any student who is currently enrolled at MT SAC in our credit program is eligible for membership. A membership application, course grade report, and an essay must be submitted (along with a flight instructor's evaluation for our renewal applicants). Membership slots are limited, but we can usually find room for most of our career-oriented students. Membership terminates when the semester ends or your classroom enrollment terminates.

What are the Costs?

Membership Fee \$50 (6 month membership)

Aircraft Rental \$50/hr - \$90/hr (includes fuel) (dependent on aircraft)

Flight Instruction \$30/hr (basic and advanced flight instruction, ground instruction)

How Do I Join?

Students may join the Flight Training Association or renew their membership for the new semester by completing the appropriate application forms at the beginning of each semester. Informational briefings are held periodically to review membership procedures. Check the department bulletin board outside classroom 28B-103 for details on open membership periods, which normally include the months of February and September.

Mt SAC Flying Team

Mt SAC is a member of the Pacific Coast Intercollegiate Flying Association (PCIFA). We are financially supported by the Associated Student Body and by donations from local aviation organizations. As a team, we compete with other colleges and universities in both flying and ground events.

What are the Competitive Events?

Flight Events

- 1 - Power-Off Landings
- 2 - Short-Field Landings
- 3 - Navigation (VFR)
- 4 - Instrument Flight
- 5 - Message Drop
- 6 - Flight Instructor Event

Ground Events

- 1 - Simulated Comprehensive Air Navigation
- 2 - Preflight Inspection
- 3 - Aircraft Recognition
- 4 - Flight Simulator
- 5 - Navigation Computer Accuracy
- 6 - Taxi Event

Who is Eligible?

Any student enrolled in at least 6 units during the Spring semester is eligible to be a team member. A private pilot certificate is required for most flight events but not for ground events. Introductory team orientation sessions are conducted during the Fall semester. Team members are responsible for renting your own aircraft for practice and competition. Limited reimbursement for flight expenses is available. Mt SAC Flight Training Association aircraft are available for use during all team activities.

How do I Join?

Attending Flying Team meetings is the first step in being involved. Meetings are conducted in conjunction with our Flight Class on Tuesdays at 11:30 in 28B-103. You need not be enrolled in Flight Class to attend the meetings and become an active team member.

University Transfer Programs

Since most professional flying careers require a four-year degree, many of our students transfer to universities after receiving their A.S. degree. Although you can transfer without completing all of the A.S. degree requirements, your future job potential will benefit from the A.S. degree. In some instances (such as the MSAC-SIU Connection), the A.S. degree provides advanced standing and fewer general education courses. The Mt SAC A.S. Aeronautics degree is well recognized throughout the nation.

Although the four-year degree is the desired credential for employment as a professional pilot, aviation employers do not specifically require that the degree be in aviation. Many of our students choose to major in a business management program or a technical field as a backup to their aviation career plans. Your selection of a four-year degree program (whether in aviation or another field) should be determined by individual considerations.

Some of the popular four-year programs in aviation that attract our students include:

Southern Illinois University (Extension at Mt SAC, Aviation Management)

Cal State University, Los Angeles (Articulation Agreement, Aviation Administration)

Embry-Riddle University Extension, Long Beach CA (Articulation Agreement)

Embry-Riddle University (Prescott, AZ)

San Jose State University

San Diego Christian College

University Of North Dakota

Arizona State University

Students planning to enter such aviation programs should consult our Counseling Office in the Student Center early in their studies to assure that appropriate courses are taken in the proper sequence. Helen Lawrence is considered our local expert counselor in aviation transfer matters, but all counselors are well qualified to help you.

Selected University Transfer Programs

Southern Illinois University

This university extension program is offered on the Mt SAC campus, with all classes on weekends. Students can complete the program in 16 months, if entry to the program occurs after completion of our A.S. degree. To attain this accelerated goal, SIU general education course requirements must be completed during your A.S. degree program at Mt SAC. More information regarding this B.S. degree in Aviation Management is available at:

<http://aeronautics.mtsac.edu>

The Cal State L.A. Program

The Aviation Administration program at Cal State, L.A. is very popular with Mt SAC students. It is a quality aviation program, the university is nearby, and it is strictly an upper division program – i.e. the program requires the first two years of study to be conducted at a community college that offers an aviation degree. To prepare for this program, there are many additional general education requirements that can be met at Mt SAC before you transfer. Students should consult a counselor in the Student Center. Taking these applicable transfer courses may, in some cases, satisfy other general education requirements needed for your A.S. degree while reducing the necessity of an overload of general education courses at Cal State, L.A. Remember, college degree requirements change regularly, so the help of a counselor is extremely important in your academic planning.

Embry-Riddle University (Arizona)

We maintain close links with this university program, one of the finest aviation programs in the nation. Located at Prescott, Arizona, advisers from this university visit our college regularly. In recent years, Embry-Riddle has supported our college with a generous scholarship program for transfer students. This major aviation program owns and operates an extensive fleet of flight training aircraft. Embry-Riddle also has a popular off-campus program located in Long Beach, CA.

Credit for Prior Flight Experience – Bypassing Courses

If you enter our program with prior flight experience, you may qualify to challenge courses (credit by examination). Most (but not all) courses can be challenged by examination, and a maximum of 12 units may be credited in this manner. Challenge exams can only be administered during the first six weeks of the semester, and these exams are scored on a percentage basis with 90% or above being an “A”, 80% or above a “B”, etc.... Courses completed in this manner count towards your graduation requirements but do not count in your grade point average (GPA) computation. An important limitation involves a college restriction on "challenging downward". For example, if you desire to challenge Primary Pilot Ground School, you must do so before you take a more advanced course (such as Commercial Pilot Ground School). If you feel you are eligible, be sure to contact the department chairman during your first weeks of study at Mt SAC.

The only course that may be waived due to prior flight training experience is AERO 23 (Primary Pilot Ground School). If you have received your private pilot certificate prior to entry to our program, you may request such a waiver from the department chairman during your first semester of study. This waiver counts toward your 12 unit maximum for "challenge by exam" (see previous paragraph).

Military Educational Planning

In aviation fields, military employment opportunities are enormous. For example, the U.S. Air Force pilot training program will enroll qualified students with a four-year degree without prior flying experience (but it certainly helps). Within a year you are flying the most advanced jet aircraft in the world! Such opportunities, however, require academic planning, particularly since military opportunities are increasingly limited to only the most highly qualified students.

Mt SAC has an Air Force Reserve Officer Training Corps (ROTC) Program in conjunction with the University of Southern California. This program is administered Cal State San Bernardino and involves academic classes one afternoon per week. Both a four-year ROTC program (which begins with Mt SAC and ends at a four-year university of your choice) and a two-year program (involving only your last two years of university study) are available. However, both programs require advance academic planning early in your studies at Mt SAC. The Air Force encourages you to sample military careers during your studies at Mt SAC by joining ROTC without obligation until completion of your sophomore year. In general, the four-year program has more options for the student.

Mt SAC and Southern Illinois University work together to provide students a commission as a second lieutenant in the U.S. Air Force upon completion of the A.S. degree at Mt SAC followed by the B.S. degree at SIU. For further information on these ROTC programs, contact Cal State University, San Bernardino (909) 880-7322 or afrotc@csusb.edu (<http://afrotc.csusb.edu>).

Other branches of the military offer extensive opportunities in aviation. Recruiters visit our campus regularly. Our alumni, now serving in all branches of the military, also return to our campus regularly as guest speakers to assist students in their military career goals.

Departmental Activities

Many students utilize Flight Class (Tuesdays at 11:30) as their opportunity for more information about aviation careers. Visitors are welcome, even if they are not enrolled in this course. During Flight Class, guest speakers from civilian and military occupations are often available to aid you in your career decisions. Also during this class, the Mt SAC Flying Team holds regular meetings. Join us each Tuesday in Bldg.28B, Room 103.

The Department of Aeronautics & Transportation maintains a bulletin board outside of Room 103 to keep you posted on aviation activities and our academic programs. Check this bulletin board regularly for information about upcoming events, scholarships, and other important information. An area of this bulletin board has been set-aside for Flying Team business and information regarding the Flight Training Association.

FAA Air Traffic Control Hiring Procedures

Mt SAC is a partner with the FAA in the FAA College Training Initiative, a program involving academic training at Mt SAC with follow-up training at the FAA ATC Academy in Oklahoma City. This program involves assignments to ATC facilities in the student's local community.

Further information regarding this FAA program is contained in our Collegiate Training Initiative Student Handbook Supplement. The details on this program are constantly evolving, so you can receive an update at our FAA Collegiate Training Initiative web page:

<http://aeronautics.mtsac.edu>

FAA Air Traffic Controller Qualifications

All controllers must meet the following qualifications, including graduates of our program:

1. Maximum age limit of 30 years (at time of FAA hiring). There are no exceptions to this limitation since Public Law 92-297 governs this requirement.
2. U.S. citizenship is required.
3. Medical examination: equivalent to the FAA Class II medical exam.
4. National security investigation.

Simulator Training

Take advantage of our fine flight simulators (flight training devices). Bring you pilot's logbook to each simulator session so that our instructors may endorse it for each lesson. Lessons are 50 minutes in duration. During that period of time, expect to receive approximately 0.7 hours of official logbook time. Our simulator instructors are trained to evaluate your level of experience and tailor each simulator session accordingly. The FAA allows students to log 20 of the required 40 hours of instrument time required for the instrument rating in our simulators.

Simulator experience is available through enrollment in credit classes (AERO 41 and 42) and on a non-credit basis (Basic and Advanced Simulator). Register at the Community Services Office in Bldg.4. Hourly lessons may be purchased through this program at rates of \$30/hour for the Basic Lab and \$40/hour for the Advanced Lab (ATC-810) for full-time students. These rates include the cost of the flight instructor, an outstanding bargain in your personal flight training program. You may purchase individual lessons or blocks of simulator time.

Financial Aid

The college administers a variety of financial aid programs that consist of federal and state grants and loans. Contact the Financial Aid Office in the Student Center for details. In general, these programs are based upon a demonstrated financial need, but many scholarships are available based on academic performance. In all instances, students must register at the Financial Aid Office to be eligible for financial aid, so it should be done early in your academic career. The paperwork that you will be asked to complete is intense; however, those students who complete the application requirements usually succeed in obtaining financial aid.

Limited financial assistance is available to students enrolled in flight training programs. For federal and state financial aid of this type, you must first complete your private pilot certificate (or meet all of the experience requirements), complete AERO 23, obtain an FAA Class II medical certificate, and be a Commercial Flight major. These restrictions are intended to prevent recreational pilots from obtaining the financial aid that is reserved for students pursuing flying careers. In general, applications in this area allow increased financial aid awards to cover the added expenses of flight training. To obtain this assistance, it is necessary to first complete the basic financial aid package of paperwork, complete the private pilot certificate (and other requirements listed above), and then contact the Aeronautics & Transportation Department Chairman for an eligibility certificate. Students are advised that state and federal funding in this program is extremely limited, and there have been very few awards in recent years.

Interest-free loans (up to \$500) for flight training are available by application through our department office. These loans must be repaid within 6 months, so they should be carefully considered before applying.

The Department of Aeronautics and Transportation offers individual scholarships in conjunction with donations from our local community. These scholarships are based primarily on academic progress, with our top students often receiving scholarships. Involvement in campus aviation activities is a part of scholarship consideration (Flying Team, Flight Training Association, Women in Aviation, Student Air Traffic Controller Association). These scholarship recipients are selected by our aeronautics faculty during the Spring semester.

FAA Pilot Certificates and Ratings Costs & Time Considerations

FAA Private Pilot Certificate

The entry-level pilot certificate for aviation careers requires a minimum of 40 hours flying time, with a minimum of 20 of those hours dual and 10 hours solo (FAR Part 61). However, the national average is closer to 75 hours, and an industrious Mt SAC student can expect to spend at least 50 hours in attainment of the Private Pilot Certificate. The 10 hours of solo time is somewhat realistic, but the dual flight hours normally far exceeds 20 hours, considering the unique nature of flight within the Los Angeles basin. We fly in an airspace region that requires some additional training and occasional air traffic control delays even during initial training. Taking all costs into consideration, including those of medical certificates, flight test examiner fees, and the expected cost of the additional dual flight instruction, the minimum cost at which a private pilot certificate can be obtained is \$5000. This projected minimum cost is based upon 50 total flight hours (30 of which are dual) at the Mt SAC Flight Training Association rates of \$50/hour for a Cessna 152 aircraft (wet rate) plus \$30/hour for the flight instructor.

The minimum time required for the Private Pilot Certificate is usually about 10 months. Since there is no problem beginning your flight training commensurate with your initial ground school course (AERO 23), this certificate can be obtained in two semesters. However, cost considerations and student schedule considerations may necessitate that the training be spread over three full semesters. Flying at a rate of 2 hours per week would allow attainment of the private license in a 6 month period. However, this is seldom realistic – personal schedules, weather cancellations, and financial considerations usually become a factor. There is an advantage in taking your flight lessons concurrently with AERO 23, since the ground school and flight training tend to compliment each other and speed the student's progress.

Statistics show that the Private Pilot Certificate is obtained in the minimum number of flight hours when individual lessons are sequenced with only a few days between lessons. Probably an ideal situation would involve flying three times per week. Once again, individual considerations often prohibit this, but it does seem to produce the lowest total cost in the long run.

The Student Pilot Certificate (accompanied by a Class III medical certificate) is not required prior to first solo, so it is not a prerequisite for your first lesson. The first solo flight normally does not occur until at least ten hours of dual flight instruction have been received. The FAA computerized knowledge exam (written exam) need not be completed until you are approaching the date for your final flight test. Thus, there is no fear of your flight training getting ahead of AERO 23. The flight test cannot be scheduled until you have passed your computerized knowledge exam (minimum grade 70%).

The Private Pilot Certificate is the entry-level certificate for the building of flight time towards higher certificates and ratings. The good news is that a private pilot can share the operating expenses of an aircraft with passengers, so Mt SAC students routinely utilize this as a tool for advancing towards higher flight credentials. Usually there are lots of other Mt SAC students who are quick to share flight expenses with new private pilots in mutual advancement towards flying careers.

Military aviation does not have an entry-level flight requirement, since the military services train their pilots from the beginning. However, a private pilot certificate (especially with an instrument rating) is a great credential for entry into the very competitive military environment.

Advanced FAA Certificates & Ratings

Instrument Rating

The first rating after attainment of the private pilot certificate is normally the instrument rating, typically obtained at approximately 200 hours of total flight time – the FAA no longer requires specific minimum total hours for this rating). The instrument rating prerequisite includes 50 hours of pilot-in-command cross-country after the private pilot certificate (each flight at least 50 nautical miles from point of departure) and 40 hours of instrument flight time. The most efficient route to the instrument rating involves beginning work on the instrument rating immediately after receiving the private pilot certificate. Your flying schedule after the private license should be oriented towards the 50-hour cross-country requirement, and considerable instrument experience can be accumulated by utilization of a vision limiting device (an instrument hood) with an appropriately rated safety pilot aboard. This experience can be attained without a flight instructor aboard during cross-country flights, but the safety pilot must be a private pilot (although not necessarily instrument rated). This all takes a lot of personal discipline when sight-seeing flights might be the preferred way to travel, but it does provide a more efficient route to the instrument rating.

Simulators (flight training devices) are an excellent method of obtaining instrument experience. In many ways, flight simulators are superior to aircraft for instrument training, and up to 20 of the required 40 hours may be completed in an approved simulation device (such as those utilized in the Mt SAC program). Academically, this is the most advanced license or rating, since it

requires considerable coordination and mental skills at a time when the student is still fairly low in flight experience. Under ideal conditions, the student could obtain the private pilot certificate during the second semester at Mt SAC and the instrument rating by the end of the fourth semester.

The approximate cost of the instrument rating would be approximately \$4,000, dependent upon type of aircraft selected for the instrument rating. Most of our students prefer to complete their instrument rating in Mt SAC's Cessna 172 due to its cockpit instrumentation and the increased stability of a larger aircraft for instrument flying. These prices also assume maximum utilization of the college's flight simulators, an innovative method of reducing the total cost of the rating. The same medical certificate (Class III) obtained as a student pilot may be utilized for the instrument rating (it is valid for a total period of three years, under age 40). And, of course, the flight time towards the instrument rating can also be utilized as required flight experience towards the Commercial Pilot Certificate.

Commercial Pilot Certificate

The minimum required hours for this license is 250 hours total time, with 50 of those hours acceptable in a flight simulator. This flight experience can be obtained by the end of the student's second year of study at Mt SAC under ideal conditions. Assuming the instrument rating is received at the 200 hour mark, the commercial pilot license could then be obtained for an additional \$4000. This is based on most flight experience being built in the Cessna 152, with the final 20 hours of training in a complex airplane (the flight test must be conducted in an airplane with retractable landing gear such as the Piper Arrow). Only 10 hours must be in the complex airplane, but 20 hours is probably more typical. Required maneuvers are a simple extension of private pilot flight skills, with many of the private pilot requirements being repeated to higher levels of precision. Many of our students complete training for this certificate after transfer to their chosen four-year university. Students attending our college part-time require more than two years to complete our program, so the commercial pilot certificate is more common before Mt SAC graduation in these instances. A Class II medical certificate is required for the commercial operations (valid for one year).

Flight Instructor

In the normal sequence of certificates and ratings for pilots who select a commercial airline career, the certificated flight instructor (CFI) is typically the next license sought. Although the commercial pilot certificate does allow flight for hire, it is usually the flight instructor who first finds work in the flying field. Even a brand new CFI is immediately employable, since flight instructors are in continual demand. Additionally, CFI's build valuable pilot-in-command time whenever they are flying with a student pilot. Thus, this certificate is usually the key to progression within a civilian flying career. The new CFI is building important experience, while

finally being paid to fly by someone else. There are few career CFI's, but most airline pilots have passed through this career briefly en route to the jet cockpit.

There are no minimum hours for the flight instructor certificate, but a commercial license is a prerequisite. Normally at least 50 hours beyond the commercial certificate is required, with some of it in a complex airplane (once again, the flight test must be in a retractable gear aircraft). In the process, the student learns the details of precision flying along with basic teaching techniques. Based on 50 hours of training (half of it in a complex airplane) the additional cost after the commercial license is estimated as \$5000. Since a flight instructor is a commercial pilot, a Class II medical certificate is required. Normally, the flight instructor certificate is not obtained until after graduation from Mt SAC. Students with an A.S. degree in Commercial Flight or Aviation Science who complete their flight instructor certificate are offered an interview for employment with our college's flight training program (College Aviation).

Other Advanced Ratings

Most of the remaining certificates and ratings occur rather automatically once the flight instructor certificate is obtained. The flight instructor simply builds flying experience while being paid to fly, and sometimes employers pick up part of the costs of higher licensing. As a minimum, the successful flight instructor will be able to self-finance these advanced certificates and ratings. Normal progression is to the instrument instructor rating next, then to the multi-engine rating, and finally the airline transport pilot certificate (requires 1500 hours). At this point the pilot has normally attained enough hours to be hired by commuter (regional) airlines. While serving with these regional carriers, the pilot is building jet time, since turboprop aircraft count as turbine aircraft flight time. The natural route to the major airlines is then pretty well assured.

Total time from first flight as a student pilot to employment with a regional airline (or as a corporate pilot) can realistically be as little as five years total time, which might be accomplished soon after attainment of the four-year college degree. Success stories vary a lot in this regard, but it is certain that this goal is fully attainable by the dedicated aeronautics student. It is not an easy route nor is it an inexpensive route, but this career is far from routine. Like many other things in life, a flying career is one of those many goals that can only be obtained with diligence, but the personal and financial investment provides a lifetime payback that cannot be equaled anywhere. Being paid to fly is a difficult dream to surpass.

FAA Collegiate Training Initiative

Air Traffic Control

Commercial Flight and Air Traffic Control Student Handbook Supplement

This handbook supplements material involving Air Traffic Control academic programs contained in the current edition of our Commercial Flight and Air Traffic Control Student Handbook. Our A.S. degree in Aviation Science forms the primary component of the Collegiate Training Initiative for Air Traffic Control, a local-recruitment, local-hire program approved by the Federal Aviation Administration in October 1997.

February 2007

**Mt San Antonio College
Walnut CA**

Overview

The FAA Collegiate Training initiative (CTI) was implemented in October 1997 in response to the FAA's projected future needs for air traffic controllers. Hiring trends are expected to be continual over the next ten years, and the FAA has implemented partnership agreements with selected colleges to prepare students for potential hiring of air traffic controllers. There are no hiring guarantees by the FAA, particularly in a profession that must react to the funding needs of the federal government and the growth trends of the aviation industry. However, all indications currently favor intensive hiring in this career field for the next ten years, and the CTI was developed to serve as the primary hiring source for FAA air traffic control specialists during this period.

Mt SAC is one of thirteen colleges and universities possessing CTI partnership agreements. We are proud to be playing an important part in this program and are the only college serving the FAA's Western Pacific Region. As part of this FAA local-recruitment, local-hire program, Mt SAC is designated to serve the Western Region. Thus, students who complete our CTI program and are subsequently hired by the FAA can expect to be placed in ATC facilities in California and surrounding states. Also, our CTI students may request assignment to an ATC region in another area of the country, but FAA placement decisions are dictated by the need for air traffic controllers in particular geographic locations. The Los Angeles area is considered to be a continuing intense FAA hiring area.

Regular updates to our CTI program will be provided at our department's web site:

[http:// aeronautics.mtsac.edu/](http://aeronautics.mtsac.edu/)

CTI Student Qualifications

To qualify for hiring by the FAA as an air traffic controller, it is necessary for you to meet some fundamental requirements. Before entering our CTI program, it is important for you to review these requirements carefully to assure that you will meet the FAA's hiring standards upon completion of our CTI academic program. Waivers to these standards are not possible, so you should be realistic about your ability to meet these qualification standards prior to entering the Mt SAC CTI program.

Here are the primary CTI student qualification requirements:

1. U.S. citizenship.
2. Speak clear and fluent English.
3. Must not exceed age 30 upon date of hiring by the FAA. Note that this requirement necessitates beginning our CTI program early enough to complete all Mt SAC degree requirements with a comfortable pad factor before reaching age 31. Under the most optimistic scenario, you can expect to add a minimum of six months onto your degree completion date for the FAA hiring process. This is necessary due to background investigation processing and a variety of hiring contingencies. Additionally, don't forget that longer delays are typical when hiring is temporarily suspended. The sequence of our courses prohibits completion of the A.S. degree in less than two full years. Our recommendation is to enter this CTI program before reaching your 27th birthday. And if you will be enrolling in less than 15 units per semester, an earlier entry is recommended to assure that you do not exceed this age restriction. There are no age waivers for the CTI program.
4. Successful completion of the FAA AT-SAT pre-qualification exam (see below). This exam should be completed no later than your second semester in the CTI program. This is an intensive 6-1/2 hour exam utilized by the FAA to identify the cognitive skills required by air traffic controllers.
5. Completion of the Mt SAC A.S. Degree in Aviation Science.
6. Recommendation by the Mt SAC Department of Aeronautics and Transportation for employment by the FAA, based on assessment of the student's academic record and a comprehensive exit exam while in the CTI program. After graduation from Mt SAC, you are eligible for CTI ATC job selection for a period of two years.

7. As part of the FAA hiring process, there are a number of requirements that must be met. Although these requirements will be verified by the FAA after your completion of the CTI academic program, these are standards that you need to consider before pursuing this career field:
- a - Security and suitability background investigation: Traffic violations involving driving while intoxicated (DWI) and driving while under the influence of alcohol (DUI) affect the suitability investigation, as does any crime or a military discharge under other than honorable conditions. Generally, recent or multiple DWI or DUI violations will be disqualifying. Conditions of termination from previous jobs are also investigated, as is a bad credit history. Multiple traffic violations may also be a problem.
 - b - Medical Exam: You will be required to pass a medical exam that is reasonably equivalent to the FAA Class II pilot medical examination. Cardiovascular factors, hearing, and vision requirements (including color vision) are closely examined. It is recommended that you receive an FAA Class II pilot medical exam early in your CTI training to assure that you meet these basic medical standards before progressing with further academic training. Your vision must be correctable to 20/20 at time of hiring by the FAA. No waivers are accepted.
 - c - An interview: typically at a Los Angeles area FAA facility. A psychological examination is included in this interview process, but it is seldom disqualifying except in instances of a history of neurosis or psychosis.
 - d - Pre-employment drug test: no previous history of alcohol or drug abuse is acceptable. As an FAA employ, you are subject to periodic drug testing.

The FAA AT-SAT (Pre-Qualification Exam)

This new “Air Traffic Selection and Training” exam is a 6-1/2 hour computer-based test designed to identify the cognitive skills needed by air traffic controllers. Since passing of this exam is essential to completion of the CTI program, it is recommended that this test be accomplished in your first semester at Mt SAC. Since this is an aptitude test, your academic program at Mt SAC will not significantly improve your grade on this examination. Thus, early completion of this exam will allow you to determine if our CTI program is a reasonable career route. Aspects of this exam include applied mathematics, word analogies, and geometric visualization. There is no charge for this examination, but it is only open to our CTI students and will be arranged during the early portion of your degree program in Aviation Science.

The FAA Hiring Process

Once you have received the A.S. degree in Aviation Science, you will be considered for recommendation to the FAA for hiring. You will have an opportunity to indicate your geographic preference for job assignments outside of the Los Angeles area, but Mt SAC's CTI program is intended to provide controllers for Southern California area and surrounding states. Primary job assignments are in control towers within Southern California or in radar facilities at Palmdale or San Diego. Besides your CTI completion qualification, the FAA will consider other factors in hiring decisions, including your college grade point average (GPA) and pilot's licenses. Completion of our CTI program does not guarantee employment, although it is one of the FAA's primary paths for the hiring of air traffic controllers. Other hiring paths include the hiring of controllers leaving the military. Assignments may occur in either the Terminal Option (control tower and radar approach facilities) or the En route Option (our local en route radar center is in Palmdale). Dependent upon your option (which is assigned by the FAA), you will enter a specialized skills training curriculum at the FAA academy in Oklahoma City following FAA hiring. Your initial annual salary during training will approximate \$31,700, (after completing your paid training at the FAA Academy). As your experience increases at your first assigned facility, you can expect salary advancements after initial facility training to \$35,825 and progress upward over time to \$74,950. Top FAA air traffic control salaries are \$104,500. You'll receive 13 vacation days initially, with health and insurance benefits and an excellent government retirement plan.

Proposed ATC Pay Bands Exclusive of locality pay											
ATC Level			4	5	6	7	8	9	10	11	12
CPC		Max	50,050	50,050	57,600	62,650	70,200	78,050	85,600	96,950	104,500
		Min	37,200	37,200	44,750	45,300	52,850	55,200	62,750	67,400	74,950
D3	75%	Max	37,200	37,200	44,750	45,300	52,850	55,200	62,750	67,400	74,950
		Min	35,825	35,825	41,488	41,900	47,563	49,325	54,988	58,475	67,138
D2	50%	Max			41,488	41,900	47,563	49,325	54,988	58,475	64,138
		Min	N/A	N/A	38,225	38,500	42,275	43,450	47,225	49,550	53,325
D1	25%	Max			N/A	N/A	N/A	N/A	43,450	47,225	49,550
		Min	N/A	N/A	N/A	N/A	N/A	37,575	39,463	40,625	42,513
AG	FAA Academy		31,700	31,700	31,700	31,700	31,700	31,700	31,700	31,700	31,700

The FAA Academy

Your skills training at the FAA academy occurs after the FAA hiring process is complete. This is specialized academic training with intensive laboratory training utilizing ATC simulation equipment. Currently, this training at the FAA Academy requires 12 weeks for the En route Option and 15 weeks for the Terminal Option. Upon successful completion of this training, you will be transferred to your specific facility assignment in a control tower, radar approach control, or en route radar center.

While at the FAA academy, you will receive approximately \$1500/month to assist with your living expenses. The FAA Academy is located at Will Rogers Airport, Oklahoma City's primary airport. Upon completion of this training, you will be required to pass a performance evaluation that consists of ATC simulator exercises. Although this is a challenging and important part of the hiring process, the FAA Academy has the goal of training you to succeed. You will receive a lot of assistance in meeting the performance evaluation standards of the FAA Academy.

Recommendations

The AT-SAT examination should be completed early. We recommend that you take this exam in your first semester and no later than your second semester. Since this exam must be passed to allow you to complete the CTI program, it is important that you attend to this early in your course progression. At present, there is an 12-month waiting period after failure of the AT-SAT exam, and only one retest is allowed. So early completion of this exam could also give you a second chance at this exam, with the opportunity to remain in the CTI academic program with retesting on the AT-SAT prior to graduation.

Although the FAA administers it's own physical exam as part of their hiring process, we recommend that you take an FAA Class II pilot medical exam early in the CTI program. This exam is reasonably equivalent to the FAA's ATC hiring exam standards. Although we expect you to pass both the AT-SAT and the physical exam, it is best to know of any difficulties early in your academic progression so that you can reconsider your career options. There are lots of careers in aviation besides air traffic control, but they all require different academic preparation.

Since the FAA hiring process involves an intensive security and suitability background examination, you should closely consider your current personal situation. Certainly, a recent or repeat record of driving while intoxicated (DWI) or driving under the influence of alcohol (DUI) is a serious problem during this investigation. Similarly, pay attention to your credit rating and protect it carefully. Your job record will also be looked at closely, so also protect that record. There is nothing you can do about past problems in these areas, but the FAA is especially concerned with your recent history.

Also note that the FAA faces peaks and valleys in hiring in the air traffic control field that are very difficult to predict. When you graduate, there may be more CTI applicants than ATC positions. In such instances, your GPA, CTI Exit Exam score, and overall college activities will be looked at closely by the FAA. A high GPA should be your continual goal.

You should also be aware that shift work is the norm in air traffic control. Many facilities operate around-the-clock, and at such locations you will be required to rotate shifts with your fellow controllers on a regular basis. That takes some getting used to, and it certainly isn't for everyone. Even the darkened atmosphere of radar facilities can be problematic for some individuals. It's certainly an unusual environment that you should closely consider before pursuing this unique and exciting career field.

Geographic Preferences

As a local-recruitment, local-hire program, the FAA will attempt to place you in a facility within five states of your choice. You can limit your "geographic preferences" (declared at time of successful completion the AT-SAT exam) but it may delay your hiring. Once you are offered a specific facility, you must accept or decline that job. If you decline, you are removed from the CTI program and cannot reapply. Thus, it is important to declare geographic preferences that are realistic for you. You can change your geographic preferences at any time after they are declared.

The A.S. Degree Program – Aviation Science

In keeping with the FAA's goal of hiring air traffic control applicants with a broad-based knowledge of aviation, our CTI program includes a general survey of all areas of the aviation industry. In fact, our previous A.S. degree in Air Traffic Control was considered much too specialized by the FAA during their initial evaluation of our CTI application. The FAA is looking for students who have a broad aviation academic background. They will train you in the specifics of ATC at the FAA Academy, and that also enhances FAA standardization of controller training on specialized equipment. The high-tech environment of the FAA Academy is certainly much better equipped than the individual CTI colleges to handle such specialized training. That explains the emphasis on academics in the Mt SAC CTI program. It also explains the degree name, Aviation Science. The FAA and Mt SAC are concerned with the expansion of your career options. If you are not selected for FAA hiring upon completion of the CTI program, you will be well prepared to continue your career in other fields of aviation. This degree prepares you for transfer to universities in related areas, such as aviation management and flight occupations. Mt SAC is proud to join some of the nation's leaders in aviation education in the Collegiate Training Initiative:

- Purdue University (Indiana)
- Embry-Riddle University (Florida)
- Dowling College (New York)
- University of North Dakota (North Dakota)
- Mt San Antonio College (California)
- Hampton University (Virginia)
- Middle Tennessee State University (Tennessee)
- College of Aeronautics (New York)
- Miami-Dade Community College (Florida)
- Inter American University (Puerto Rico)
- University of Alaska (Alaska)
- Beaver County Community College (Pennsylvania)
- Daniel Webster College (New Hampshire)

A.S Degree in Aviation Science

The recommended sequence of courses listed below does not include the general education courses required for the A.S. degree. Consult our college catalog for these requirements. It is recommended that you integrate your general education courses into your course schedule carefully. Generally, these courses fill faster than our aviation courses, so early registration in general education courses is recommended.

Semester A

AERO 23	Primary Pilot Ground School	4 units
AERO 26	Aviation Weather	3 units
AERO 29	Federal Aviation Regulations	2 units

Semester B

TRAN 17	Air Transportation	3 units
CIS B11	Computer Information Systems	3.5 units
AIRT 41	Aircraft Recognition and Performance	2 units

Semester C

AERO 27	Aviation Safety and Human Factors	3 units
AIRT 42	Air Traffic Control Environment	3 units

Semester D

AERO 24	Navigation	3 units
AERO 30	Instrument Ground School	3 units
AIRT 43	Air Traffic Control Team Skills	1.5 units
		—————
		31 units

Students with Prior Military Experience

It is possible that your military ATC experience will qualify you for immediate FAA hiring. We encourage all controllers with military experience to contact their local FAA office for details. Our CTI program is designed for students who begin our ATC training ab initio (from the beginning). Thus, if you decide to enter our program with prior military experience, we will not be able to provide you with advance standing for your military experience. We can give limited credits for accredited college courses, but your excellent military experience will not earn you advance standing. It is possible that other colleges and universities in the CTI program will consider your military experience in terms of advance standing, so we encourage you to look into those programs. Mt SAC respects the value of military training (military controllers are among the world's best!), but our academic program does not allow by-passing the basic aeronautics and air traffic control courses required for the A.S. degree in Aviation Science.

Students with Previous College Experience

A common situation regards students who already possess a B.S. degree and then pursue an ATC career. Here's the bad news -- our program is ab initio (from the beginning), so you'll probably have to re-accomplish a number of aviation courses that are similar to your university background. To apply for specific transfer of college aviation courses, provide our Aeronautics Department with transcripts of the courses that you request for transfer. Please clearly identify what specific Mt SAC aeronautics courses you are challenging by transfer credit, and include a copy of the pages of your university catalog that outlines your specific transfer aviation courses. Also include a copy of the page in your college or university catalog (usually at the front) that specifies the accreditation agency for your school. Address these materials to: Department of Aeronautics, Mt San Antonio College, 1100 N. Grand Ave, Walnut CA 91789. Please provide an email address for our reply to you.

For general education courses, you will need to contact our Admissions Office for transcript evaluation. One area of common concern involves how long a student will require to complete our A.S. degree in Aviation Science (CTI Air Traffic Control), if a student enters our college with a B.S. degree complete. The general answer is a minimum of 3 full semesters (1-1/2 years), assuming that all Mt SAC general education requirements are previously complete. Why so long? The answer lies in the sequencing of the required aviation courses and the fact that this is a rather small program. Most air traffic control courses are offered every other semester and are not available during the summer semester. You'll have to carefully schedule your classes to graduate in 3 semesters. Our departmental web site can assist with advance schedules for future semesters.



Mt San Antonio College

Aeronautics & Transportation, 1100 N Grand Ave, Walnut CA 91789
909) 594-5611 Ext 3098

A.S. Commercial Flight

How to get started...

New students should enroll in these courses during their first semester:

AERO 23	Primary Pilot Ground School	4 units
AERO 26	Aviation Weather	3 units
AERO 29	Federal Aviation Regulations	2 units

And don't forget your general education degree requirements. A full-time student is typically enrolled in 15 units per semester, so you still have room for 6 units of general education subjects. Save the more advanced aeronautics courses for your future semesters, and get a solid start on these general education requirements.

If you have A.S. degree ambitions but simply want to earn your private pilot certificate, only AERO 23 is required. However, AERO 26 and AERO 29 provide valuable supplements to the AERO 23 material and should be taken concurrently, if your schedule permits. If you want to start flying in your first semester, there will be opportunities to apply for admission to the Flight Training Association in the first two weeks of each semester. Our college operates three training aircraft at Brackett Airport in a flight training program structured in conjunction with AERO 23. Admission to the Flight Training Association is competitive. Only students enrolled in credit courses at Mt SAC may fly our aircraft, and your eligibility ceases when you finish attending classes at Mt SAC.

Initial courses are sequenced so that students may begin this program in either the Fall or Spring semester. Although this program is primarily designed to be completed by attending day classes, courses are rotated through the evening schedule on a rotational basis.

Further information is available on the World Wide Web at:

<http://aeronautics.mtsac.edu>



A.S. Aviation Science (Air Traffic Control)

How to get started...

New students should enroll in these courses during their first semester:

AERO 23	Primary Pilot Ground School	4 units
AERO 26	Aviation Weather	3 units
AERO 29	Federal Aviation Regulations	2 units

And don't forget your general education degree requirements. A full-time student is typically enrolled in 15 units per semester, so you will still have room for 6 units of general education subjects. Save the more advanced aeronautics courses for your future semesters, and get a solid start on these general education requirements.

In October 1997, Mt SAC was awarded a preliminary FAA contract under the Collegiate Training Initiative program to train air traffic controllers for the FAA. Initial courses are sequenced so that students may begin this program in either the Fall or Spring semester. Although this program is primarily designed to be completed by attending day classes, courses are rotated through the evening schedule on a rotational basis.

Good luck with your aviation career! We look forward to seeing you in class.

More Information is available on the World Wide Web at:

<http://aeronautics.mtsac.edu>



Mt San Antonio College

Aeronautics & Transportation, 1100 N Grand Ave, Walnut CA 91789
(909) 594-5611 Ext 3098

SUBJECT: Transfer of Aviation Courses to Mt SAC

Procedures involving coordination with our department office are listed in this document for those students who have completed accredited college courses in aviation and desire to transfer aviation courses to Mt SAC. The word “transfer” will be used in this document, although the process that is discussed here will not provide college credit for courses taken at other colleges and universities, since duplicate credit at both institutions is not possible. However, this letter will outline the process for “waiver” of required courses to allow students to complete their Mt SAC A.S. degree without taking the actual classroom instruction for these courses. This process is technically referred to as “Waiver of Major”. In most cases this will not adversely affect enrolled students, and the terms “transfer” and “waiver” are used interchangeably in this document.

Only college credit courses may be transferred (waived), and these courses must be close duplicates of the courses that are provided at Mt SAC. Credit for pilot licenses, FAA written exams, and academic courses at non-collegiate flight schools is not available. However, you can challenge some of our courses (maximum of 12 units) by taking the equivalent of our final exams. See our Commercial Flight and ATC Student Handbook for details regarding credit-by-exam.

For those students who feel that they have valid equivalent college courses for transfer (waiver) consideration, provide our department office with a specific written proposal via postal mail, and it will be evaluated. This process applies to aviation-related courses only -- general education courses are coordinated through our Admissions Office.

To transfer aviation courses, you will need to compare the college catalogs at both schools (your previous college and Mt SAC). You can probably muddle through what you need at our college's web site (www.mtsac.edu), although it is recommended that you obtain your own copy of our college catalog or review one at your local library. Here's what you should submit to our department via postal mail -- this will allow advance approval of aviation course transfers:

1 – Submit a letter (address below) stating specifically what is requested -- e.g., transfer Arizona State University's AVIA 27 for Mt SAC's AERO 29, etc. In your mailing include a copy of the your previous college's catalog page that describes the course(s) that you desire to transfer. Mark it up with red pen or yellow hi-liter so that it is clear what courses you are requesting. We will compare these courses to Mt SAC's required aviation courses and request further clarification, if

necessary. There's no need to include the pages from Mt SAC's catalog, since we are very familiar with our own catalog.

2 - If your submitted information is not sufficiently detailed, we may request that you obtain official course outlines from your transferring institution. Official course outlines that document the details regarding your courses almost always resolve issues involving courses that have questionable similarities. Usually the college catalog descriptions are enough, so we'd recommend that you not bother with this step unless we request it.

3 - Do not request transfer of courses that have different course descriptions. If the course descriptions are really close, submit it. But if the Mt SAC Navigation course is described as an advanced navigation course, and your college's Navigation course is a more basic course, please don't request a course transfer. So identify those aviation courses that you desire to be given serious consideration. The course descriptions must be nearly identical in terms of course descriptions to be considered.

4 - In your letter, include an email address for reply, and we will promptly (not so promptly during the summer) provide a decision via email regarding all of the courses that you have requested for transfer. Our department office will retain a copy of that email (and so do you), so that the actual course transfer can occur when you arrive at Mt SAC. We cannot validate any aviation transfer actions until you are attending classes during your first semester, but this email should make you feel comfortable as a guarantee that the courses will transfer properly. Then, during your first semester, visit our department office, provide a copy of the email and any other documents that we have requested, and we take care of the necessary paperwork.

5 - Here's the mailing address for the materials:

Dept. of Aeronautics
Mt San Antonio College
1100 N. Grand Ave
Walnut CA 91789

Best of luck with your aviation career – it's going to be exciting!

Why Join the Flight Training Association?

1. Conduct your flight training in the aircraft that you own.

The Mt SAC Flight Training Association is a student activity sponsored by the Department of Aeronautics & Transportation. The aircraft belong to the Associated Student Body, so you will be doing your flight training in your own aircraft. This concept has numerous advantages including the financial backing of our college. No costs are spared in assuring that these aircraft are the finest quality to be found anywhere. Since we are a nonprofit organization, we are not in business to make money. Our primary goal is your flight training education. Our financial reserves go to aircraft and equipment upgrades. The money that you spend renting these aircraft comes directly back to you in terms of quality equipment.

2. Train in a college supervised program.

The Department of Aeronautics and Transportation supervises the flight training program, assuring you of quality instruction. Regular quality control inspections by the college means that your flight training continues in a professional manner and affirms that you are receiving the best training available at an economical cost. All of our flight instructors are prior students of our program, assuring you a clear understanding of academic and career objectives and how to meet these important goals.

3. Learn in an academic environment with other Mt SAC students.

Do not underestimate the importance of learning in an academic environment. It will establish your flying skills for years to come. You will be learning right along with other Mt SAC students in our college's aircraft. The supportive relationships that develop with your classmates are important to your career success. Your classmates are the pilots sharing your airplanes and learning from the same flight instructors.

4. Learn in top quality equipment at reasonable prices.

All of our aircraft have built-in intercom sets, with headsets available for check-out at the flight desk. These aircraft have Mode-C transponders and top-of-the-line avionics equipment. When maintenance problems occur, they are repaired in a timely, professional manner. Yet, our prices are approximately 20% below the industry standard. And, remember, the money that you pay goes right back into your own airplanes.

Membership briefings for the Flight Training Association are conducted at the beginning of each semester. The open membership period each semester is during the first two weeks of the semester. Late applications are not accepted.

Mt SAC Simulator Utilization Procedures (Revised 01-01-07)

1. Authorized Students:

- a. Students enrolled in AERO 30 (Instrument Ground School) are authorized two hours of Simulator instruction, at no cost to the student. This instruction is available only to students possessing a minimum of a private pilot certificate. Lesson cards will be issued by Mt SAC AERO 30 instructors upon presentation of a pilot's license.
- b. Additional simulator instruction (now officially designated by the FAA as “flight training device” instruction) can be arranged by enrollment in the appropriate Community Education ticket number at Bldg. 4, Room 221-D. These noncredit ticket numbers allow students to enroll for 1 – 5 hours of simulator time. Reenrollment is acceptable at any time during the semester for additional simulator instruction. After enrollment is accomplished, sign up on the bulletin board outside 28B-112 (Simulator Lab) for your scheduled lessons. When you report for your lesson, be sure to bring your white registration form with you. No registration sheet – no simulator flying – no exceptions! All simulator time for which you are enrolled must be completed within the semester of purchase or your fees will be forfeited.

Elite PC-ATD Simulator: \$30 per hour for students minimum recommended total flight time for students enrolling in this noncredit course is 10 hours; enroll in “Flight Simulator – Basic”. The applicable ticket number will be assigned by Community Education registration personnel, based on the number of simulator hours that are requested.

ATC-810 Simulator: \$40 per hour for students currently enrolled in at least 12 units of credit (see any simulator instructor or our department office (28B-101K) for a 12-unit verification form that may be presented at Community Education Registration); \$50/hour for students not currently enrolled in 12 units of credit; minimum recommended total flight time for students enrolling in this noncredit course is 100 hours; enroll in “Flight Simulator – Advanced”. The applicable ticket number will be assigned by Community Education registration personnel, based on the number of simulator hours that are requested.

- c. Simulator lesson cards issued in conjunction with AERO 30 are not transferable to other students and must be utilized within the semester issued. Violators will be permanently dropped from the simulator program, and the college may take further disciplinary action.

2. Scheduling Lessons:

- a. Simulator instruction normally begins during the second week of the semester and continues until the last day of classes. Students schedule themselves for the lessons by signing up on the schedules posted on the bulletin board outside of 28B-112. Print your last name (pencil only please). If, for any reason, you can not meet your scheduled appointment, you are responsible for removing your name from the schedule as soon as possible to allow someone

else to use your session. If you miss 2 lessons for which you have been scheduled, you will be dropped from the simulator training program.

- b. The phone number in the Simulator Lab is (909) 594-5611, Ext. 4783. If you have a scheduling conflict, you can attempt to reach a simulator instructor at that extension. The Flight Simulator Director can be contacted through David Todd's voice mail at Ext. 3586. Feel free to leave a message on this recording service, and the Flight Simulator Director will return your call. Do not call the department or division office, since they are not able to provide scheduling assistance. You are individually responsible for erasing your name from the schedule if conflicts arise, even if that requires an extra visit to the campus.
- c. Simulator sessions are scheduled for a duration of 50 minutes. Since some ground time can be expected during each lesson, you can expect to log an average of 0.7 hours of simulator time per lesson. If you are not on time for your scheduled lesson, a waiting student may be authorized to take your entire session.

3. Operational Procedures:

- a. Bring your logbook to each lesson. Our instructors will complete your logbook at the end of the simulator session.
- b. Don't forget to bring you lesson card or noncredit registration form with you to each simulator session. Under no conditions will simulator instruction be conducted without a valid lesson card or registration form.

4. Credit Simulator Course (AERO 41 and 42):

Students enrolled in credit simulator courses are required to register for a minimum of six hours of noncredit simulator time in either the Link Simulator (AERO 41) or the ATC-810 (AERO 42). Thus, AERO 41 and 42 students simultaneously enroll in noncredit simulator lessons. This does not need to be accomplished in advance of the first class within the credit Simulator Lab programs. At the first credit class, the instructor will review procedures for utilization of noncredit simulator lessons in conjunction with these credit courses.

Aviation Management

The California-Illinois Connection

Mt San Antonio College's campus in the San Gabriel Valley (Walnut) has entered into an agreement with Southern Illinois University to provide a Bachelor of Science degree program in Aviation Management. The impact on the aviation programs at Mt SAC has been already been felt this year as the new SIU program enters its second semester at the college.

A longtime leader in aviation career-preparation programs, Mt San Antonio College offers Associate in Science degree programs in a variety of aviation specialties, including specialized degrees for those desiring careers as pilots, flight attendants, air traffic controllers, aircraft mechanics, and travel agents. Not surprising, these technical fields are enhanced by academic preparation through the university level, and Southern Illinois University at Carbondale, Illinois, is now helping fill that void.

Upon completion of their A.S. degree, Mt San Antonio College students will be immediately eligible for entry to the SIU program right in the classrooms of Mt SAC's Walnut campus. After completion of the A.S. degree, the B.S. degree in Aviation Management can be completed in sixteen months in a weekend format. Classes are offered every other weekend, and are ideal for students who desire to complete their university degree at Mt SAC while working during the week.

Southern Illinois University has previously offered their B.S. degree in Aviation Management at military bases nationwide. This is SIU's first agreement with a college to provide the aviation degree on a campus other their own university campus in Carbondale, Illinois . Southern Illinois University is nationally recognized as a leader in aviation education and offers more airline internships than any other university. A full-time Southern Illinois University program advisor has been assigned to the program at Mt SAC.

According to Wayne Lutz, Mt SAC's Chairman of Aeronautics (retired), this program is the result of the closure of the El Toro Marine Corps Air Station, one of SIU's previous military locations. "When plans for the closing of El Toro started to hit home, we became concerned," says Lutz. "We had a great relationship with SIU while they were at their El Toro site, and now we were facing the loss of that source of university transfer. So we began negotiations with SIU to move the program to our campus." In January 1999, the first class began at SIU's new home in Walnut.

According to Jeanne Scott, the SIU program advisor assigned to Mt SAC, this program is off to a fine start. "Initially, we were concerned about student enrollments at this new location," says Scott. "We've offered the B.S. degree in Aviation Management to military personnel at their duty stations, and the civilian student population has been rather small. Now we are in a location where traditional community college students are the prime focus. It's working out wonderfully, and our classroom is already nearly full." Southern Illinois University at Carbondale developed this program to prepare students for entry to aviation management positions with airlines, airports, and the federal government. Additionally, becoming a pilot for a major airline or the military requires a university degree, so community colleges such as Mt San Antonio College need a university transfer program. In general, a university degree is essential for management positions in the aviation industry.

"There are several excellent aviation university transfer programs that have traditionally been popular with our students," says Mt SAC's Robert Rogus. "Now our students have another major option, and we are pleased to be able to provide it. The SIU program is an upper-division program, so SIU relies on us to take care of the first two years of academic preparation."

And the Southern Illinois University program isn't just for Mt SAC graduates. A number of Los Angeles area community colleges are already contributing students to this new program. Graduates from Cypress College, Long Beach City College, and San Bernardino Valley College are already participating. Area military personnel still form a significant part of this local program, and both Mt SAC and SIU hopes that will continue.

A similar university aviation program at California State University continues to draw many students from local community colleges, and some A.S. degree graduates elect to continue their education at other private universities, especially Embry-Riddle University in Prescott, Arizona. "The key item," says Lutz, "is to assure that our students have access to a variety of university aviation transfer programs that suit their needs. For many of them, this new on-campus SIU program is ideal."

**Further information is available by telephone at SIU's Mt SAC office:
(909) 594-5611, extension 4800
or via access to Mt SAC's "SIU Connection" web site: <http://aeronautics.mtsac.edu>**

Careers with the FAA – Air Traffic Control

As the Federal Aviation Administration prepares for the new millennium, the entire issue of how to train air traffic controllers for positions in the nation's control towers and radar control facilities has entered a new era. Under the FAA's Collegiate Training Initiative, selected colleges are now authorized to train air traffic controller candidates under partnerships with the FAA. This new hiring source, plus the exit of trained controllers from the military services, will serve as the primary source of air traffic controllers in the new century. Beginning in 2001, the FAA projects extensive retirements that will significantly impact the need for new controllers. The peak in retirements is expected to be particularly acute in 2007.

The FAA has been gearing up for this new collegiate training source since October 1997, when thirteen colleges and universities were granted partnerships under the Collegiate Training Initiative. Mt San Antonio College is one of only three colleges west of the Mississippi authorized to train new air traffic controllers under the Collegiate Training Initiative (the other two are the University of North Dakota and the University of Alaska).

Mt San Antonio College's graduates under the Federal Aviation Administration's Collegiate Training Initiative complete the college's A.S. degree in Aviation Science, a degree that can be completed in two years for full-time students. Students selected for hiring will then complete further laboratory training at the FAA Academy in Oklahoma City.

The FAA's Collegiate Training Initiative is a "local recruitment, local hire" program, with students from the community being trained for air traffic controller jobs within their local geographical area. For Mt San Antonio College students, facility assignments will include airport control towers and radar facilities throughout Southern California. Hiring requirements include an age limitation (at time of hiring) of 30 years, and this requirement is not subject to waiver. According to Robert Rogus, Mt SAC's ATC Coordinator: "We recommend that students enter our Collegiate Training Initiative degree program at an age no older than 27 to assure timely completion of all requirements and to take into account any FAA hiring delays." According to Rogus, a federal aptitude test for air traffic controllers is administered during the student's first semester in this college program, to confirm the student's hiring potential prior to completion of the academic program.

**For further FAA Collegiate Training Initiative
information, visit the CTI web site at
<http://aeronautics.mtsac.edu>**