EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

BULLETIN
1970-71

ACCREDITED

DAYTONA BEACH, FLORIDA

ENGINEERING • MATHEMATICS • MANAGEMENT • MAINTENANCE • AERONAUTICS

World famous, fully accredited EMBRY-RIDDLE AERONAUTICAL UNIVERSITY is just ten minutes away from "The World's Most Famous Beach" at Municipal Airport, Daytona Beach, Florida. The $25 million campus complex, scheduled for completion in 1975, is in the center of an exciting metropolitan area. Daytona Beach is widely known as the nation's vacation capital. Twenty miles of hard-packed sand beach is publicly owned, offering unequalled opportunities for ocean swimming, surfing, scenic drives or just plain basking in the Florida sun. Fresh and salt water fishing is unequalled. Automobile racing has moved from the beach onto the fastest closed course in the world at Daytona International Speedway next to the Embry-Riddle campus. The area has fine churches and schools, modern hospitals and splendid parks. The University is just sixty minutes from guided tours at Cape Kennedy . . . seventy minutes from Walt Disney World . . . fifteen minutes from Marco Polo Park, thirty minutes from St Augustine and Marineland . . . and within easy driving distance of Silver Springs, Cypress Gardens, Busch Gardens and many other celebrated attractions. Students working on their B.S. or A.S. degrees, their F.A.A. certification for Maintenance Technology or their Professional Pilot ratings live in a cultural, historical, scientific and imaginative environment at Embry-Riddle Aeronautical University.

Jack R. Hunt, Harmon Trophy Award for Aeronaut, 1957; Board of Trustees, Aerospace Education Foundation.

A Message to Young Men and Women:

Education — especially aviation education — is a serious business. If you believe that you want to become a part of the rapidly growing and exciting field of aviation, you must be prepared to devote your time and your energy to acquiring the knowledge necessary for a successful and fulfilling career.

Now, in the "air age" there is a growing list of demands for pilots, engineers, mechanics, administrators, and other related professional jobs. Young men and women with education and imagination will be needed to fill these responsible positions in a growing industry.

There is no short cut to success . . . nor will a diploma guarantee you a job . . . an education is a good beginning. We at Embry-Riddle are dedicated to the concept that youth must be served . . . provided youth will serve itself.

There is a tremendous challenge in aviation for those who are, or want to become "a cut above the average" . . .are you ready to accept that challenge?

Sincerely,

Jack R. Hunt

Jack R. Hunt
President

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Embry Riddle
AERONAUTICAL UNIVERSITY

P.O. BOX 2411 • DAYTONA BEACH, FLORIDA 32015 • 904-252-5561

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Embry Riddle

AERONAUTICAL UNIVERSITY

P.O. BOX 2611 • DAYTONA BEACH, FLORIDA 32015 • 904/252-5561

Thomas P. Stafford

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

IN REPLY REFER TO: CB

APR 2 3 1970

Mr. Jack R. Hunt
President
Embry Riddle Aeronautical Institute
Daytona Beach, Florida 32015

Dear Jack:

Again, I want to thank you, the faculty and Board of Directors for bestowing upon me the Honorary Doctor's degree. It was also a pleasure for me to give the graduation address to such a fine student body and I will re-emphasize the fact that the student body that I observed at Daytona Beach was head and shoulders above the majority of campuses that I have been on and talked to the students. All of you certainly should be proud of your great achievements and I am sure that the growth in the future will be every bit as fantastic as it has been in the past.

I am enclosing several autographed pictures from the Apollo 10 flight and they are for both you and to be placed in the Institute in whatever place you deem proper.

If I can ever be of any help to the Institute, please feel free to give me a call.

With best regards.

Sincerely,

Tom

Thomas P. Stafford
Colonel, USAF
Chief, Astronaut Office

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EMBRY-RIDDLE AERONAUTICAL UNIVERSITY CALENDAR

FALL TRIMESTER —1970

August 27	Students requiring Placement or Bypass/Advanced Standing Examinations report to Admissions Office (9:00 A.M.)
August 28	Administration of examinations (Placement, Bypass and Flight)
August 31	Registration begins. Orientation.
September 2	Maintenance and Flight Technology classes begin
September 7	Labor Day Holiday. University closed.
September 9	Aeronautical Studies classes begin
September 14	Last day to add classes
October 21	Last day to make up incomplete ("I") grades. Last day to officially drop classes.
October 22-23	Mid-trimester registration (Airframe & Powerplant)
October 23	Mid-term grades (4:00 P.M.)
October 26	Mid-trimester classes begin (Airframe & Powerplant)
November 2-16	Pre-registration academic advisement
November 16-19	Pre-registration for Spring trimester
November 26-27	Thanksgiving Holiday. University closed.
December 14-18	Final examinations
December 18	End of trimester

SPRING TRIMESTER — 1971

January 4	All entering students report to Admissions Office (9:00 A.M.)
January 5	Administration of examinations (Placement, Bypass and Flight). Registration begins. Orientation
January 9	Registration ends
January 11	Classes begin
January 15	Last day to add classes
February 19	Last day to make up incomplete ("I") grades. Last day to officially drop classes.
March 2-3	Mid-trimester registration (Airframe & Powerplant)
March 4	Mid-trimester classes begin (Airframe & Powerplant)
March 5	Mid-term grades (4:00 P.M.)
March 8-22	Pre-registration academic advisement
March 22-25	Pre-registration for Summer trimester
April 19	Convocation
April 20-23	Final examinations
April 23	End of trimester

SUMMER TRIMESTER — 1971
Term 1

April 26	All entering students report to Admissions Office (9:00 A.M.)
April 27	Administration of examinations (Placement, Bypass and Flight). Registration begins. Orientation.
April 30	Registration ends
May 3	Classes begin
May 5	Last day to add classes
May 21	Last day to officially drop classes
June 11	Last day to make up incomplete ("I") grades
June 21-23	Final examinations
June 23	End of term

SUMMER TRIMESTER — 1971
Term 2

June 21	All entering students report to Admissions Office (9:00 A.M.)
June 22	Administration of examinations (Placement, Bypass and Flight). Registration begins. Orientation.
June 23	Registration ends
June 24	Classes begin
June 28	Last day to add classes.
July 4-5	Independence Day Holiday. University closed.
July 6-19	Pre-registration academic advisement
July 14	Last day to make up incomplete ("I") grades. Last day to officially drop classes
July 19-22	Pre-registration for Fall trimester
August 13-17	Final examinations
August 17	End of term

FALL TRIMESTER — 1971

August 26	Students requiring Placement or Bypass/Advanced Standing Examinations report to Admissions Office (9:00 A.M.)
August 27	Administration of examinations (Placement, Bypass and Flight)
August 30	Registration begins. Orientation.
September 1	Maintenance and Flight Technology classes begin
September 4	Registration ends
September 6	Labor Day Holiday. University closed.

September 8	Aeronautical Studies classes begin
September 13	Last day to add classes
October 18	Last day to make up incomplete ("I") grades. Last day to officially drop classes.
October 21-22	Mid-trimester registration (Airframe and Powerplant)
October 22	Mid-term grades (4:00 P.M.)
October 25	Mid-trimester classes begin (Airframe and Powerplant)
November 25-26	Thanksgiving Day Holiday. University closed.
December 13-17	Final examinations
December 17	End of trimester

Embry-Riddle Aeronautical University operates on a plan whereby the school calendar is divided into three 15-week trimesters each year. Each trimester is equivalent to an academic semester. Two trimesters are an academic school year. The summer trimester is "split" into two terms, each 7½ weeks in length. Term I begins in early May, with Term II starting in late June. Students applying for admission into any of the programs, including college preparatory, may enter Embry-Riddle on either of the registration dates shown for the summer terms.

Students applying for Airframe and Powerplant Technician courses may choose to enter either at the start of the Fall and Spring trimesters or summer terms or at the mid-trimester registration periods as shown.

Students wishing to apply for the Professional Pilot flight programs (Private, Commercial, etc.) should contact the Director of Admissions to obtain an up-to-date starting schedule of the various courses.

GENERAL INFORMATION

History

Embry-Riddle originated as a flying school at Lunken Airport, Cincinnati, Ohio, in 1926. Because of the recognized excellence of its instruction it was soon participating nationally and internationally as a leader in aeronautical education and so its name was changed to Embry-Riddle International School of Aviation.

At the outbreak of World War II Embry-Riddle was called upon to assist the United States Army and the Air Forces of England and France in training desperately needed pilots and mechanics. Embry-Riddle established four large Army flight schools in Florida and a Maintenance Technology School in Brazil. It also trained thousands of Army Air Force mechanics at its Florida Installation.

In September, 1961, Embry-Riddle Aeronautical Institute, a nonprofit, coeducational college replaced the International School of Aviation. Embry-Riddle offered curricula in aeronautical engineering, aeronautical engineering technology, aviation management, aviation maintenance management, aircraft maintenance engineering technology, applied mathematics, airframe and powerplant mechanic training to include jet engines, and professional pilot training complete with ground school and synthetic trainers.

In 1965 Embry-Riddle moved to its permanent location at the Daytona Beach Regional Airport with 200 students. It was Accredited in 1968 by the Southern Association of Colleges and Schools. Currently, over 1500 students from all fifty states and more than thirty-five foreign countries are enrolled in Aviation Career Programs.

In the summer of 1970 the name was changed to EMBRY-RIDDLE AERONAUTICAL UNIVERSITY.

Also, in 1970, ERAU opened a Residence Center at Fort Rucker, Ala. offering Degree Completion Programs to military personnel.

On July 1, 1970 ERAU began teaching Fixed/Wing and Rotary/Wing Instruments to Army Aviators at Fort Rucker, Ala.

Philosophy

Embry-Riddle Aeronautical University accepts as a responsibility:

The *personal* task of preparing students for responsible citizenship in every sense of that term.

The *educational* task of adequately preparing students for productive occupational and professional careers in aviation.

The *industrial* task of maintaining the closest liaison with the aviation community and to maintain a continuing dialogue with all elements of aviation.

Institutional Objectives

Embry-Riddle Aeronautical University has established the following educational objectives:

To provide the training facilities, faculty, staff and equipment necessary to afford qualified students the opportunity to acquire a high degree of skill and professionalism in various aviation disciplines.

To develop professional programs in specialized aviation fields consistent with high academic and training standards, and to continue to maintain these standards in all programs.

To provide an opportunity for all competent, serious-minded students to acquire a technical, vocational or higher education without regard to race, sex, creed or national origin.

To consult with the aviation industry in order to determine manpower needs for the purpose of maintaining a constant and dynamic re-evalution of the programs offered within a framework of liberally oriented educational objectives.

To sponsor and promote research activities appropriate to these objectives.

Accreditation and Affiliation

Embry-Riddle Aeronautical University is accredited by the Southern Association of Colleges and Schools. It is a member of the National Council of Technical Schools, the College and University Personnel Association, the Independent Colleges and Universities of Florida and the Florida Association of Colleges and Universities.

The Associate of Science Program in Aeronautical Engineering Technology is accredited by the Engineers Council for Professional Development as an Engineering Technology curriculum and the Technical Programs in Aircraft Maintenance and Flight are fully approved by the Federal Aviation Administration.

The State of Florida has approved Embry-Riddle for enrollment of veterans for G. I. Bill benefits and the Office of Education, Department of Health, Education and Welfare has approved this university for Federal Assistance under the Higher Education Facilities Act of 1963 and the Higher Education Act of 1965.

ROTC Program

Embry-Riddle students may enroll in ROTC training as an elective course. However, individuals concerned attend these classes at Stetson University by a class-enrollment arrangement. The course of instruction is divided into two phases, Basic Course and Advanced Course, each lasting the equivalent of two years. In order to enroll in the Basic Course, a student must be a citizen of the United States and not more than 28 years of age prior to date of qualification for appointment as a second Lieutenant, be physically qualified in accordance with Army standards for reserve officers, and have successfully completed the ROTC qualifying examination. Enrollment in the Advanced Course is contingent upon completion of the Basic Course or at least one year active and honorable service in the United States Armed Forces. ROTC graduates are awarded commissions as second Lieutenants in the U.S. Army Reserve, or in the case of Distinguished Military Students, the regular Army. In addition, seniors in the ROTC program may qualify for Army aviation training, and all instruction, uniforms and textbooks for Basic and Advanced students are furnished by the U.S. Government. Prospective Embry-Riddle students who wish to participate in the ROTC Program should indicate their desire prior to or at the time of application. For further information, write the Director of Admissions.

General Requirements for Admission

All applicants must be at least 17 years of age and must present evidence of satisfactory physical and mental health by completion of the student health form. Forms must be completed within the 6-month period preceding the date of entry. All entering flight students must show evidence of possession of a Federal Aviation Administration Airman medical certificate before flight training will commence. Applications for admissions should be submitted at least two months before the start of the trimester in which an applicant wishes to enroll. Applications filed later will be processed but students may expect delays in their date of admission and enrollment. At least two weeks should be allowed for admissions processing the neccessary documents have been received.

All applicants must present a diploma from an accredited secondary school. Graduates of non-accredited secondary schools, those not issued a diploma and those not completing a secondary program may be considered for admission on the basis of the General Education Development test providing they place above the 40 percentile in each subject area and above the 45 percentile on the composite of the GED.

A fee of $15.00 must accompany all applications for admission. Within thirty (30) days of notification of acceptance, a $100.00 tuition deposit, and, if applicable, a $100.00 dormitory deposit is required. These deposits are 100% refundable, provided the University

is notified by letter postmarked sixty (60) days prior to the published date of registration, of the intent of the student not to register.

Registration

Applicants who have been accepted will be notified promptly and will receive registration instructions prior to the date established for registration. A student accepted into degree curriculums must have ACT or SAT headquarters or his high school forward his score transcript to the guidance counselor at least one month prior to date of enrollment. Those who should find it impossible to meet this deadline may apply for special permission to take the tests on campus. If neither the transcript nor campus administration deadlines have been met, a student wishing to enroll in a degree program will be charged a fee of $100 to defray cost of individual administration of the placement test and late registration. There is no placement test requirement for students accepted into certificate curriculums of Airframe and Powerplant or Professional Pilot.

Foreign Students

The credentials of applicants from foreign countries are evaluated in accordance with the general regulations governing admission. An application, photograph, and detailed transcripts of records must be submitted to the Director of Admissions at least six months in advance of the opening of the class in which the applicant seeks to gain admission. This will allow time for the exchange of necessary correspondence and documents relative to the securing of passports and visas for study in the United States.

Candidates for admission are required to consult the American Consulate or the American Embassy in their country of residence and make arrangements to take an English language examination. The results of this examination are an important factor in determining the acceptability of an applicant. Embry-Riddle must receive this information directly from the Consular Office before a decision concerning admission will be reached.

In addition, candidates for admission must complete all arrangements for the necessary American dollars to cover tuition and living expenses and must furnish advance proof of this according to the amount shown on the Certificate of Eligibility of the U.S. Immigration Service, Form 1-20A. This also is an important factor in determining the acceptability of an applicant.

Acceptance for admission of foreign students will be based on recommendations of the Committee on Admissions and other requirements detailed in this Bulletin and determined on an individual basis. Foreign students approved to enter will be required to present evidence of satisfactory mental and physical health at the time of admission and may be required to submit to a physical examination at the time of admittance at their own expense.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY IS NOW AT FORT RUCKER, ALABAMA

On July 1, 1970 Embry-Riddle entered into a contract with the Department of Defense to train Army Aviators in Fixed Wing and Rotary Wing Instruments at Fort Rucker, Alabama. Embry-Riddle instructors are using some fifty twin engine airplanes for fixed wing instrument instructioin and one hundred helicopters for rotary wing instrument instruction. A staff of over three hundred and fifty people comprise Embry-Riddle's instructional effort at Fort Rucker.

Instructing military pilots is nothing new for Embry-Riddle. During WW 2 over 17,000 Air Corps Cadets learned their Primary Flight Phase at one of four fields in Florida. Embry-Riddle also trained thousands of mechanics for the military services during the same period.

RESIDENCE CENTER
Fort Rucker, Alabama

All the military services encourage personnel to upgrade their skills and further their academic training while in service. To assist this worthwhile goal Embry-Riddle has opened a Residence Center at Fort Rucker, Alabama.

Embry-Riddle offers night classes with full academic credit in programs leading to degree completion in Aviation Management, Aviation Maintenance Management and Aeronautical Science. It is expected that more than one thousand students will enroll in such courses.

Embry-Riddle will expand its Extension Services by opening other Residence Centers at military posts around the country where aviation career oriented personnel are stationed.

FEES AND CHARGES

PAYMENT OF TUITION AND FEES

Prices, schedules and conditions listed in this Bulletin are subject to change without notice.

Payment Procedure

Payment in full of all tuition and fees must be made in cash or combination of cash and student loan (See Student Loan Program) prior to the first day of classes of each trimester. Continuing students incurring subsequent charges must prepay in accordance with University policy. Students who register for subsequent trimesters incur a minimum financial obligation of $100.00 Tuition deposit and $100.00 Dormitory deposit (where applicable), which are not refundable.

Students are not permitted to maintain a credit balance in their accounts as a depository for personal withdrawals. There are excellent local banks in the immediate area where accounts may be opened for the safekeeping of surplus funds.

Parents, guardians and agencies providing funds for payment of tuition and fees are advised that overpayments to the students' accounts will be refunded directly to the student. Any exception to this procedure must be by written notice to the Bursar of the University containing specific instructions for the return of overpayments.

Tuition and Flight Laboratory Fees

	Charges
College of Aeronautical Studies	
Tuition per trimester (14-18 hours)	$600.00
Individual Credit Hours under 14 and over 18	43.00
College of Aviation Technology	
Division of Maintenance Technology	
Tuition per trimester — Airframe and Powerplant Maintenance Technology Course	550.00
Additional Individual Credit Hours	43.00
Division of Flight Technology	

Professional Pilot Flight Program

Phase	Flt. Course No.	Course Description	Flt. Hours	Cost
Primary	FC-100	Private Pilot	45	$ 885.00
Intermediate	FC-240	Commercial Pilot	128	3009.00
	FC-301	Instrument Pilot	20	823.00
		SUB-TOTAL	148	$3832.00
Advanced Electives	FC-404	Flight Instructor	25	673.00
	FC-306	Multi-Engine Laboratory	15	1095.00
	FC-401	Advanced Instrument	25	580.00
	FC-407	Multi-Engine Flt. II-DC-3	15	2370.00
	FC-409	Instrument Flight Instructor	25	717.50

Aeronautical Science Curriculum

Trimester	1	2	3	4	5	6	7	8
Flight Course No.	FC101	FC112	FC201	FC202	FC301	FC306	FC(ELEC)	
Flight Lab. Fee	$818	909	928	742	710	1095	—(min)	580
Tuition	$600	600	600	600	600	600	600	600
Total Costs	$1418	1509	1528	1342	1310	1695	600	1180

Charges for tuition and fees outlined herein are normally assigned for the academic year and for the most part will remain constant. Miscellaneous fees, such as insurance, FAA examination and others, are beyond the control of the University and subject to change. Embry-Riddle Aeronautical University reserves the right, however, to make adjustments in tuition and fees where conditions warrant, to meet the financial requirements of the University.

*Other Fees and Charges Per Trimester

1) Dormitory Charges	Students/Room	Rate
Dormitory No. 1	2/Room	$230.00
Dormitory No. 2	4/Apt	235.00
Dormitory No. 2	3/Apt	245.00
Dormitory No. 2	2/Apt	255.00
Dormitory No. 3	2/Apt	255.00
Dormitory No. 3	2/Room	215.00
Dormitory charges for Professional Pilots		66.00 to 72.00 a month

2) Insurance Fees	
Student	$12.00
Student/child	25.00
Student/spouse	25.00
Family	40.00

3) Miscellaneous Fees — Where Applicable	
**Dormitory Damage Deposit	$20.00
Student Activity Fee — All Students	6.00
Linen Fee	12.00
Laboratory Fees	10.00
ROTC Activity Fee	6.00
Deferred Payment Plan Service Charge	5.00/12.00

*Includes Pro-rata charges for campus bus transportation and custodial services.
**Initial Deposit only — Student required to maintain minimum balance of $20.00 in account — Refundable.

One Time Non-Refundable Fees — All Students	
Application	$15.00
Matriculation	10.00
Graduation — Final Trimester	10.00

One Time Non-Refundable Fees — Where Required	
Flight Evaluation Check Ride*	$ 20.00
Airframe and Powerplant Orals and Practicals	40.00
Change of Program Fee	10.00
Drop/Add Fee	10.00
Section Change Fee	10.00
ACT/Bypass Fee	7.00
Missed ACT Fee (includes late registration)	100.00
Late Registration Fee	50.00

Aircraft Rates for FAA Flight Examinations (Maximum hours as approved for veterans)

Course Description	H.P.	Hours	Rate	Charges
DC-3 Type	2400	3.5	$150.00	$525.00
Multi-Engine (D-18)	900	3.5	65.00	227.50
Multi-Engine (C/L thrust)	420	3.5	37.00	129.50
Flight Instructor (Airplane)	100-150	2.5	14.00	35.00
Instrument	100-150	2.5	14.00	35.00
Instrument	180	2.5	20.00	50.00
Commercial	100-150	2.5	14.00	35.00

PENALTIES

Students failing to make scheduled payments of tuition and fees within prescribed dates are subject to the following penalties:

a)	All unpaid balance is immediately due and payable	
b)	Failure to make monthly payment	Suspension
c)	Late payment of trimester charges prior to first day of class	$ 5.00
d)	Payment of trimester charges after classes begin	25.00

SCHEDULE OF TRIMESTER PAYMENT DATES

Fall Trimester 1970	August 28, 1970
Spring Trimester 1971	January 1, 1971
Summer Trimester 1971 (1st term)	April 23, 1971
Summer Trimester 1971 (2nd term)	June 18, 1971

Flight Accounts

Combined flight students may prepay the fees of flight courses at registration, or may open a flight account at their option. The flight account system is established as a pay-as-you-fly convenience to the academic or technical student with primary objectives other than flight training. Professional Flight Program or Aeronautical Science students are not eligible to participate in the flight account system.

*Single engine, Multi-engine at hourly dual rates for type.

Upon opening the flight account, the combined student will be required to place $100.00 in escrow. The escrow deposit cannot be drawn upon and will not be returned to the student until either the student has completed flight training or he withdraws from the flight division. After the escrow account has been established, a $300.00 minimum initial deposit into the flight account will apply towards flight training and ground school charges. However, students in the academic programs may be exempt from the ground school charges depending on their credit hours per trimester. Charges for flight training will be in accordance with the published Aircraft Rate Schedule. Withdrawals from the flight account for personal expenses may not be made. When students withdraw from the flight division, flight account refunds will be computed two weeks after the date of withdrawal.

Aircraft Rate Schedule

Rate schedules will apply to students in the following categories:

a) Combined students receiving flight training on the flight account system.
b) Professional Flight Program and Aeronautical Science students requiring additional training in order to complete a flight course.

Aircraft are available for non-syllabus rental to properly licensed students and faculty by pre-arrangement. Such flights must be approved by the Chief Pilot and are subject to Florida State tax.

RATES PER HOUR

Type	Dual	Solo	Instrument
Primary Aircraft (Up to 150 H.P.)	$20.00	$14.00	$ 23.00
Transition Aircraft (Retractable Gear)	26.00	20.00	29.00
Aerobatic Aircrcaft	26.00	20.00	None
Twin-Engine Aircraft:			
Skymaster (Multi-engine center line thrust)	37.00	30.00	37.00
Beechcraft D-18S	65.00	None	65.00
Douglas DC-3	150.00	None	150.00
Oral Instruction	10.00	None	None
Flight Simulator (Single Engine Link)	None	None	10.00

Refunds

In order that proper services may be provided to students, obligations are entered into by the University which continue, even if students subsequently withdraw. As a result, full recovery of fees by the student at the time of withdrawal is not possible and an equitable charge must be made to recover the loss of income to the University as a result of withdrawal. Refunds may be made to students in good standing in accordance with the following policy:

a) Tuition and Dormitory Deposits: 100% refundable if college is notified not less than 60 days prior to the date of registration.

b) Students who register for a subsequent Trimester and/or Flight program and withdraw from the University prior to the first day of instruction, will be charged $100 Tuition/Flight Lab Fee and $100 Dormitory fee if applicable. These funds will be held in escrow for one academic year from date of withdrawal and may be reapplied by the student to affect any future charges incurred.

c) Students who terminate a course of instruction and/or a Flight program within the first twenty-one days commencing either on the first day of registration as published or in the case of Professional Pilots on the first day of instruction are entitled to refund of charges made to their accounts as follows:

1) Acadamic, A&P and Combined — Fifty percent of Tuition, Flight Lab Fees and Dormitory charges for that Trimester.
2) Professional Pilot: Fifty percent of Flight Lab Fees of designated flight program terminated.

d) Withdrawal after the 21 day period outlined above will generally receive no refund.

e) Provided withdrawal is due to circumstances beyond the student's control, such as extended illness or required Military service, determination will be based on the merits of each individual case.

f) A student dismissed for reasons of conduct or academic standing in accordance with conditions established under the paragraph heading "Dismissal from the University" outlined in the Bulletin is not entitled to a refund.

g) Refunds for students enrolled under the certification provisions of the Veterans Administration will be processed in accordance with Embry-Riddle Aeronautical University refund schedules approved by the Veterans Administration.

h) The refund of tuition, fees and other charges to veterans, war orphans and children of permanently or totally disabled veterans who fail to enter the course, or withdraw or are discontinued therefrom at any time prior to completion will be in accordance with section 1654, Chapter 34 or section 1776, Chapter 35, title 38, United States Code. Prorated refund except non refundable fees less 10%.

Delinquent Accounts

Student tuition and fees are payable according to the schedule shown herein. In the instance of debts incurred subsequent to registration, accounts are due at the date of billing. A payment is considered delinquent when it is overdue by thirty (30) days and all unpaid balance is immediately due and payable. When a student's account is delinquent, all academic and administrative processing of his records will be suspended. Information on class performance and grades will be withheld, and registration for a new trimester, graduation, or release of transcripts will be denied. A student failing to satisfy his financial obligations will be subject to dismissal.

Guaranteed Tuition Plan —SST

Guaranteed tuition is offered to students who elect to attend classes year 'round. The Plan guarantees the students that tuition will not be increased provided the students enroll in successive trimesters without interruption until graduation. Further information on the Guaranteed Tuition Plan may be obtained from the Admissions Office.

STUDENT SERVICES AND ACTIVITIES

Placement

While Embry-Riddle cannot guarantee employment upon graduation, the Placement Office conducts an active service which has had excellent success in placing graduates. Extensive files on aircraft corporations are maintained for students and alumni. Help in preparation of individual resumes and scheduling for on-campus interviews is the largest portion of the activity of this office.

Additionally, all student employment on campus is programmed through the Placement Office. On application, the Placement Office will assist students and their wives to fulfill off-campus work requests.

Library Facilities

The library subscribes to approximately 150 periodicals and over 15,000 books and has at its disposal indexes to permit research.

It also receives trade journals, house organs and general publications of the major airlines. Photocopying services are available.

An up-to-date reference collection is maintained and kept current for the needs of the aeronautical engineering and related programs, including FAA publications, CAB regulations and NASA documents and reports.

Other services include individual reference service, inter-library loan service, and instruction in the use of the library, which is classified according to the Library of Congress system.

Mail

Prior to a student's arrival, all personal mail and baggage should be addressed as follows:

Name
c/o Embry-Riddle Aeronautical University
Daytona Beach, Florida 32015

All baggage and express packages must be sent prepaid. Baggage is stored at the risk of student and the University accepts no responsibility for theft or missing baggage. Baggage will be stored in a locked room.

During registration each student will be assigned a post office box which he is required to check on a daily basis, not only for his personal mail but to enable delivery of University official notices. The correct address will then be:

Name
c/o Embry-Riddle Aeronautical University
ERAU Box ————
Daytona Beach, Florida 32015

Student Government Association

The Student Government Association of Embry-Riddle Aeronautical University has as its membership all full-time students. The governing body of this association is the Student Council. It is composed of representatives elected by the student body.

The purpose of the Student Council is to promote the welfare of the student populace and the University. It shall maintain liaison with the administrative staff and cultivate good relations with other colleges. It is the responsibility of the students to support their Student Government Association.

The Student Council plans, directs and supervises dances, barbecues, lectures, trips, movies and other activities. It has the responsibility to regulate vehicular traffic on the campus and in

dormitory areas, and to assist in governing student conduct and dress. All student groups and organizations must have their constitutions approved by the Student Council before forwarding to the Dean of Students' Office.

Living Accommodations

All students, if unmarried or unaccompanied by wives, are required to reside in university designated dormitories. With the consent of the Dean of Students, special exemptions may be allowed. Priority for such exemptions will normally be accorded those students over twenty-one years of age who have completed their military obligation, provided they remain in good standing. Dormitory rates include pro-rata charges for campus bus transportation and custodial services, with room rates varying from $215.00 to $255.00 per trimester. Dining facilities are available at local restaurants to which bus transportation is provided. Costs are estimated to vary from approximately $250.00 per trimester upward, depending on individual student requirements.

Laundry facilities are available. A linen service is mandatory for all dormitory residents. The linen fee of $12.00 per trimester provides for a weekly issue of two sheets, two bath towels, a washcloth and pillow case. Students are expected to provide their own bedspread, blankets, and study lamp, if desired.

The University reserves the right of entry into dormitory rooms at any time for purpose of inspection, cleaning, repair, or to enforce regulations.

Specific Appearance and Dress Policy

All faculty, staff and students:

1. Must wear shoes on the campus.
2. Will not wear undergarments in place of outergarments.
3. May not wear trousers or shorts that are "cut off" or "torn off" on campus (except in dormitory areas).
4. Are to be clean with hair well groomed.
5. Should present an appearance at all times which will reflect favorably upon themselves, their associates, the university and the aviation community.

Safety in the many aviation activities at Embry-Riddle is of paramount importance; therefore, individual dress should be in accordance with the safety requirements of the task being performed.

Financial Aid

Embry-Riddle participates in all of the financial aid programs of the Federal Government as well as the Guaranteed Student Loan Programs administered by the various states. Students (except foreign nationals) enrolled in degree-granting curricula are eligible to participate in all of the Federal assistance programs:

COLLEGE WORK-STUDY PROGRAM: Jobs may be offered to students who demonstrate need. Students are allowed to work up to 15 hours weekly during school and up to 40 hours weekly during vacation periods. A recent change in Federal regulations now enables students enrolled in the College of Aviation Technology to participate in the College Work-Study Program.

NATIONAL DEFENSE STUDENT LOAN PROGRAM: Awards range up to a maximum of $1,000 per academic year (two trimesters). Interest is at the rate of three percent and repayment, over a period of ten years, begins after the student ceases to attend college. Deferment of repayment may be granted for a period of three years during which time the borrower is on active duty with the Armed Forces, Peace Corps, or as a VISTA volunteer. Half of the loan may be forgiven if a borrower becomes a full-time teacher in an elementary school, secondary school or institution of higher education.

EDUCATIONAL OPPORTUNITY GRANTS PROGRAM: Grants in amounts up to $1,000 (depending on family resources and college costs) may be awarded to students who demonstrate "exceptional financial need". (Those whose parents are judged able to contribute approximately $600 or less annually toward the education of the applicant).

Recipients must have an Educational Opportunity Grant matched with some other form of aid. National Defense Student Loans and College Work-Study jobs frequently are used as matching funds.

GUARANTEED STUDENT LOAN PROGRAMS: All states have some agency responsible for implementation and application pro-

cedures. "Eligible lenders" for the most part are banks, but may include credit unions, savings and loan associations, insurance companies, colleges (unusual), or an agency acting for a group of lenders. The program is primarily for middle and upper-income families but any college student is eligible to apply. Interest is seven percent, but the Federal government pays the interest for students in college when the parents have less than $15,000 "adjusted" income. An undergraduate may borrow up to $1,500 an academic year. Repayment of principal and interest begins when the student has ceased his course of study.

The amount of financial assistance a student may receive at Embry-Riddle Aeronautical University depends upon his financial need. Need is partially determined by an analysis of the "Parents' Confidential Statement" or "Students' Confidential Statement" as in the case of a student who has been independent of his parents twelve months prior to his application for financial assistance. These forms are devised by the College Scholarship Service. The College Scholarship Service does not itself award scholarships or other types of financial assistance. It simply provides a uniform method of analyzing a family's ability to pay for college expenses. Contact your high school counselor for an application and further details on the Federal assistance programs.

High school counselors or our financial aid officer frequently will be able to help the student work out package financial plans. These plans are designed to make it possible for qualified young people to obtain a college education. Students should initiate their application for financial assistance (Parents' Confidential Statement or Students' Confidential Statement) along with their application for admission. No computations on financial aid will be initiated until the student is formally admitted. Arrangements pertaining to financial aid must be completed before registration.

In addition to the Federal assistance programs, State Guaranteed Loans and Scholarships and Grants, many privately endowed loan programs are available. Information will be furnished on request.

The two scholarship programs now operative are:

THE ZONTIAN SCHOLARSHIP FUND: In honor of Amelia Earhart, the Daytona Beach Zonta Club, an organization of executive business and professional women, sponsors qualified young women to prepare for careers in aviation. Recipients are chosen yearly between June and September by the Scholarship Committee and the extent of financial aid determined will be applied against tuition expenses. Financial assistance will be awarded on a yearly basis and will continue until culmination of the student's educational objectives at ERAU, provided high standards of academic and moral conduct are maintained, as determined by the University. Scholarships will be awarded without prejudice to race, religion or color.

THE EMBRY-RIDDLE SCHOLARSHIP AWARD: This award is sponsored by the University and honors outstanding entering freshmen. Selections are made yearly and are full tuition-free scholarships. The scholarships will continue in existence until culmination of the educational objectives of the recipient, provided the student maintains the highest standards of academic excellence and moral conduct as determined exclusively by the University. In addition there are monetary awards for academic excellence in both colleges.

Deferred Payment Plan

Embry-Riddle recognizes that the costs of higher education place formidable demands upon students to meet tuition lump sum payments at registration. Consequently a loan program is available to students which permits them to spread their payments over a number of months under conditions that scheduled monthly payments will be met on a timely basis. Embry-Riddle administers this program either through sponsorship by local banks or as a direct program of the University. Standard interest rates or a fee of $10 whichever is greater and in accordance with the Truth in Lending Act will be charged to any student executing a loan under this program. Applications must be processed and approved prior to registration.

Other provisions of this program are as follows:

1. *All students except newly-enrolled students and professional pilots* may execute a loan up to ¾ of their total charges for tuition and fees. The amount of the loan plus interest are repayable in three monthly installments during the trimester.
2. *Newly-enrolled students* may execute a loan which cannot exceed ½ of the total charges for tuition and fees. Repayment of the loan plus interest must be made in three monthly installments during the trimester.
3. *Professional Pilots* may execute a loan, however, they must make a minimum down payment of at least 10% of the total approved program. Monthly payments may be arranged to conform to the student's flight program as well as financial program as approved by the University Financial Aid Office.
4. Thirty Day promissory note. . .

Students unable to satisfy all financial obligations at registration, but able to furnish evidence acceptable to Embry-Riddle, that sufficient funds are pending will be permitted to execute a 30-day promissory note. A fee of $5 will be charged for this service.

5. The following schedule of penalties are applicable:

a) Each Delinquent Monthly Payment	$8.00
b) Late Monthly Payment	2.00

Organizations

Student organizations include the Sailing, Surfing, Scuba, Parachute, Rifle and Pistol Clubs, Experimental Aircraft Association,

*A payment is considered delinquent when it is overdue by thirty (30) calendar days.

American Institute of Aeronautics and Astronautics, and Veterans Association. There are four campus fraternities:

Sigma Phi Delta Professional Engineering Fraternity; founded at the University of Southern California, 1926; Pi Chapter at Embry-Riddle organized in 1960.

Alpha Eta Rho International Aviation Fraternity; founded at the University of Southern California, 1929; Epsilon Rho Chapter at Embry-Riddle organized in 1962.

Pi Sigma Phi Social Fraternity; founded at Embry-Riddle Aeronautical University, 1967.

Sigma Chi Delta; Social Fraternity; founded at Embry-Riddle Aeronautical University, 1969. Petitioning for charter in Sigma Chi National Social Fraternity.

All fraternities require at least one trimester in residence prior to pledging except for qualified transfer students.

Students from different sections of the world have organized groups to promote international relations.

Sports

Embry-Riddle, a member of the National Collegiate Athletic Association, participates in intercollegiate competition in soccer, baseball, volleyball, basketball, and golf. Students who are on academic probation may not compete in intercollegiate athletics.

Intramural and/or league competition is available in baseball, basketball, bowling, flag football, golf, softball and volleyball. Bicycling, shooting and weight lifting equipment and facilities are available.

Health Service

Physical examinations are required for all entering students. The Health Examination Form is provided by the admissions office and must be completed and returned prior to formal admission. The school maintains an infirmary staffed by properly qualified medical personnel.

All students are required to present evidence of hospitalization insurance or purchase same at the time of registration. The Halifax District Hospital is three blocks from the campus and referral service is conducted by the doctor at the school infirmary.

Upon submission and acceptance of an application, parents, sponsors or the student thereby authorize the school administration to authorize emergency medical treatment when called upon to do so by competent medical authority. It is agreed that no legal action will be brought against the school or its officers when such authorization by the administration is granted.

Trimester Hour Credits

All credits are recorded in terms of trimester hours. A trimester hour is one 55-minute lecture per week throughout the 15-week trimester. In counting hours earned in the laboratory, a trimester hour is considered to be two laboratory hours requiring outside preparation, or three laboratory hours requiring little or no outside preparation.

Grading Procedure

GRADE	RELATIVE STANDING	HONOR POINTS PER TRIMESTER HOUR
A	Superior	4
B	Above Average	3
C	Average	2
D	Below Average	1
F	Failure	0
W	Withdrawal during the first six weeks of the course	0
X	Exempt by examination	0
T	Accepted by transfer	0
P	Satisfactory (Non-credit)	0
AU	Auditing course without credit	0
I	Passing but incomplete work	0

An incomplete grade is given when a student is unable to complete required work for reasons beyond his control as determined by the instructor. A grade of "I" must be made up not later than the end of the sixth week of classes of the following trimester (not later than the end of the third week of classes of the next half-trimester in the case of half-trimester courses), otherwise the "I" is automatically changed to an "F" by the Registrar.

A student may withdraw from a course during the first six weeks of a course and receive a grade of "W." The date of course withdrawal (drop) is the date that the procedure is completed and recorded by the Registrar.

In the event the student discontinues attendance but does not complete the official withdrawal procedure, the grade of "F" is assigned.

"I" on an academic record is equivalent to an "F" in computing honor-point averages.

Attendance*

Regular attendance and punctuality are required at all times in all courses. Arrangements for completing missed work may be made

*Refers to academic degree programs only. Attendance requirements for aviation technology students are included in the description under the respective divisions.

with the instructor, at the discretion of the instructor. It is the responsibility of the student to initiate these arrangements.

In those cases involving illness, grave personal problems, or other circumstances which make attendance impossible, the student is obligated to inform his instructor and request absence be charged as excused absences.

Unexcused absence in a course in excess of one absence per credit hour (or "non-credit hour") is sufficient reason for assignment of a grade of "F" to the student. Arrangements may be made with the instructor to make up the work missed.

An examination is given in each course at the end of the trimester. A student who misses an examination without advance permission of the instructor will be given an "F" in the course. An incomplete may be given if the absence was due to circumstances which were beyond the control of the student but will not be allowed unless the instructor has been given evidence of the circumstances.

Attendance at Other Schools

Students desiring to take academic courses or technical courses (including flight training) at other schools must obtain permission of the Registrar of Embry-Riddle Aeronautical University prior to enrollment at another school. This applies to currently-enrolled students and to students not currently enrolled but maintaining "continuous enrollment". Students who attend other schools without proper approval are subject to immediate dismissal.

Students are cautioned that tampering with a full-time student status at the University may have serious consequences with the Selective Service System or Veterans Administration.

Preparatory Education

This program has been initiated to provide entering students with an opportunity to improve their capabilities in the basic educational requirements for degree programs. Placement in this program will be made on the basis of placement tests as described on page 36.

The Preparatory Education Program is designed to give the student a sound basis in mathematics, English and reading. A student enrolled in the total Program who fails all of these courses will be denied enrollment in any degree program. Failure in one or two courses will require a case by case determination by the Department Head and Division Chairman as to whether a student should be admitted to or allowed to continue in a degree program.

A major part of the Preparatory Program will consist of study techniques for the particular disciplines offered. Because of the application of mathematics and English to all degree programs these disciplines have been given major emphasis in the Preparatory Education Program. No credit will be allowed for this program. Only

grades of "passing" or "failure" will be assigned for performance in these courses.

COURSE OF STUDY	CLASS HOURS PER WEEK
Preparatory Mathematics MA-001	7
Preparatory English HU-001	5
Preparatory Reading HU-002	3

Grade Point Average

A grade-point average (GPA) is computed for each student at the end of each trimester. The GPA is determined by dividing the total number of grade points earned at Embry-Riddle by the total number of trimester hours attempted. In computing the GPA the trimester hours attempted are determined as follows:

a. All degree programs: all credit hours attempted at Embry-Riddle Aeronautical University.
b. All non-degree programs: all credit and non-credit hours that are required for the program and attempted at Embry-Riddle Aeronautical University.

When a "W," "X," "P," or "AU" grade is recorded for a course, the hour value does not count as hours attempted.

A course may be repeated once with the grade awarded for the second attempt replacing the first grade. Both attempts will appear on the student's record but only the second grade will be computed in the grade point average.

Honor Student

An Honor Student is one who has attained a grade-point average of 3.50 or better for the previous trimester provided he was enrolled as a full-time student in courses that may be used to compute his honor-point average. The phrase "Cum Laude" will be added to the diploma for students graduating with a 3.5 GPA, "Magna Cum Laude" for a GPA of 3.8 or more.

A student likewise may be placed on the Dean's List with a grade-point average of 3.20 to 3.49.

Classification of Students

Students are classified at the end of each trimester as follows:

1. Academic Student: A student enrolled in a program for which the goal is a degree (BS or AS) and is enrolled in or has earned one or more credit hours.
   a. Preparatory: enrolled in Preparatory Program
   b. Freshman: 30 hours or less
   c. Sophomore: 31 - 60 hours
   d. Junior: 61 - 90 hours
   e. Senior: 91 hours and up

2. Flight and Maintenance Technology Students: Students enrolled in technical programs for which the goal is a certificate; or an academic student earning a requisite technical certificate.

   a. A Maintenance Technology student is classified by the number of the full-time trimester in which he is enrolled — first, second, etc.

   b. A Flight Technology student is classified by the Phase in which he is enrolled.

3. Special: A student not seeking a specified degree or certificate and not enrolled in a program.

   a. Special Student: receives credit as appropriate.
   b. Auditor: does not receive credit for courses.
   c. Special Flight Student: taking Flight Technology courses only.

Academic Students, Special Students, Auditors and Special Flight Students are classified as full-time students if carrying 14 or more credits or non-credit hours; otherwise, they are classified as part-time students. Technology students carrying 30 clock-hours are full-time students. Technology students may be classified full-time students as described in the curricula.

Auditing

A student may audit one or more courses without credit. The fee for auditing is the same as for registering for credit. At no time can a student registered for audit receive credit.

A student who has registered to audit may change to credit only during the published drop-add period.

A student who has registered for a course for credit may change to audit during the first fourth of the course.

Changes from audit to credit or from credit to audit are made in a manner similar to adding and dropping a course. The Add Fee applies.

Students auditing a course may be dropped for poor attendance with a grade of "W," at the discretion of the instructor.

Academic Probation and Suspension

Academic probation is imposed when the cumulative grade-point average of any student falls below the following levels:

Hours attempted	14 or fewer	15-29	30-44	45-59	60-74	74 or more
GPA	1.5	1.6	1.7	1.8	1.9	2.0

Probation status will be removed whenever the GPA is equal to or greater than the level shown above.

If a student does not meet the above criteria in the trimester succeeding the one in which he was placed on academic probation, he is eligible for suspension or dismissal. The final decision will be the responsibility of the Vice President — Academic Affairs.

If academic probation or academic suspension is removed by the conversion of a grade of "I" to a grade of "A," "B," "C," or "D," the academic probation or academic suspension will not become a part of the permanent academic record.

Dismissal from the University

When a student makes application for entrance to ERAU he thereby understands and agrees that the University reserves the right to dismiss him at any time if his conduct or academic standing is regarded by the University as undesirable, without assigning any further reason therefore. Upon enrollment it is understood and agreed that the University or any of its officers, administrative staff, or faculty shall not be liable in any way for such dismissal.

Withdrawal from the University

A student desiring to withdraw from the University must do so officially by executing a clearance form at the Dean of Students' Office. Failure to withdraw properly will result in having the phrase "left without proper clearance" entered on the permanent transcript.

Graduation Requirements

In order to graduate from any academic or non-credit certificate program, a student must:

1. Successfully complete all required courses. (Certification by the Registrar and the Division Chairman are required, that all courses required have satisfactorily been completed, as specified in the ERAU Bulletin in effect when the student entered the program. A student may elect to graduate in accordance with a later Bulletin.)
2. Have completed a minimum of thirty hours work at Embry-Riddle and that the last thirty hours applied toward the degree be completed in residence, including off-campus residence centers. (degree only).
3. Have obtained a final honor-point average of 2.0 or better (70% in Flight and Maintenance Technology Programs).
4. Satisfy all financial obligations.
5. Be recommended by the Dean of Academics.
6. Participate in graduation ceremonies unless excused by special permission.

Diplomas are awarded to graduates of curricula composed of college credit courses. Certificates of graduation are awarded to

students completing other programs such as Airframe and/or Powerplant and Professional Pilot programs. Application for a diploma or certificate must be initiated by the student and received (after appropriate recommendations, approvals, and fee payment have been made) by the Registrar eight weeks before the end of the trimester when the degree or certificate is to be awarded.

Two degrees of the same rank—e.g., BSAE and BSAMET—will not be conferred upon the same individual unless the additional degree represents at least 30 credit hours of additional work, with the necessary honor-point average.

When a student's enrollment at ERAU is continuous, graduation according to the curriculum in effect when he entered the program is permitted, providing the courses required are offered by the University. Continuous enrollment is full-time enrollment in two-thirds of the trimesters since the student entered the program, provided that he (1) misses no more than one trimester in succession and (2) is enrolled in at least two trimesters in succession when enrolled, except for students participating in authorized cooperative or ERAU Residence Center programs. If one or more courses are no longer offered, the faculty of the Division concerned will make adjustments for the student as are appropriate for the program involved.

Student Responsibility:

The student is responsible for informing himself of all rules, regulations and procedures required in the degree program he is pursuing. Regulations will not be waived or exceptions granted because a student pleads ignorance of the regulation or claims failure of his adviser to keep him informed .

COLLEGE OF AERONAUTICAL STUDIES CURRICULA

Freshman Students

The Embry-Riddle College of Aeronautical Studies will consider for admission graduates of recognized high schools or other accredited secondary schools. Applicants who have been awarded high school equivalency diplomas also will be considered. All applications for admission must be accompanied either by an authenticated high school record or photocopy of an equivalency diploma. In the case of an equivalency diploma a transcript of high school work completed should be included. The Admissions Committee will also consider students who meet the General Requirements for Admission to the University.

Transfer of Courses from Other Colleges and Universities

A candidate for admission who has attended other accredited institutions of higher education must arrange for official transcripts to be sent directly to the Director of Admissions from the Registrar of each institution attended. If requested, the candidate must present the catalog of the institution from which he transfers, marked to indicate courses taken. Transfer credit will be granted under the following provisions:

(1) The student must be in good academic standing with the last institution attended.
(2) Only those courses completed with "C" or better are transferable. A course with a grade of "D" may be accepted on the basis of satisfactory passing an ERAU end of course examination.
(3) Previous flight experience may be accepted in accordance with the transfer policy stated hereafter under Division of Flight Technology.
(4) Transfer of elective credits will be limited to the appropriate electives authorized in the curriculum in which the candidate has applied for enrollment.

Students not transferring credits in English and mathematics will be required to take the examinations described as "Placement Tests" and will be subject to the University's regulations governing these tests.

Students on probation at the last institution attended and students transferring from institutions not accredited by the appropriate regional accrediting agency will be placed on probation when enrolled and must earn a grade-point average of at least 2.0 the first trimester enrolled in order to continue in their degree program.

Each curriculum department reserves the right to require an evaluation exam for any course submitted for transfer credit if there is doubt concerning the equivalency of the course taken at another institution with a similar course offered at Embry-Riddle.

Advanced Standing

Examination scores, training in military service schools, and professional background experience may be submitted as a basis for admission to an advanced level. Credits may be awarded as follows:

(1) General college level examinations by CLEP available through USAFI with scores at the 25th percentile or above will be accepted for credit as follows:

English Composition	6 credit hrs.
Humanities	4 credit hrs.
Social Science	6 credit hrs.
Physical Science	3 credit hrs.
Mathematics (excluding math. requirements for Engineering and Applied Math.)	3 credit hrs.

(2) Subject examinations by CLEP or USAFI with satisfactory or better grades will be accepted for credit in any course which is equal to a course offered by Embry-Riddle.

(3) Training in military service schools will be considered for credit by each curriculum division based on the recommendation of the American Council of Education.

(4) Applicants who have had professional experience in areas related to the curriculum in which they have requested enrollment may be allowed credit toward advanced standing on the basis of this experience. Such training and experience determined to satisfy educational objectives of courses of the applicant's curriculum may be credited for advanced standing by the appropriate Division Chairman.

Students desiring to obtain advanced standing on the basis of professional background may submit applications to the Division Chairman concerned. Applications must be submitted during the first trimester of attendance at Embry-Riddle and must include adequate documentation such as certification of professional level, evidence of completion of formal training programs, and verification of work experience where appropriate.

Advanced standing and transfer credit granted in accordance with these procedures will be authenticated by the appropriate Division Chairman and validated by the Registrar for official records purpose. An "Evaluation for Transfer Credit" or "Evaluation for Advanced Standing" form will be provided the student and his academic advisor.

(5) A maximum of seventy hours toward a B.S. degree or thirty-five hours toward an A.S. degree may be allowed for college level USAFI general and subject examination test scores, and military service training.

Advanced Standing on the Basis of Flight Related Experience

Advanced standing will be granted for specific General Aviation Courses on the basis of flight related experience and training acquired prior to a student's initial enrollment at Embry-Riddle. The student must provide appropriate documentation to substantiate his background to the Chairman, Aeronautical Science Division, during his first trimester of attendance at Embry-Riddle. The basis for the award of advanced standing will be as follows:

(1) Satisfactory completion of an FAA approved Private Pilot Ground School or satisfactory completion of the Private Pilot, or higher, written examination and a minimum of 40 hours of pilot experience: GA 100 (4 credit hours).

(2) Satisfactory completion of an FAA approved Commercial Pilot Ground School or satisfactory completion of the FAA Commercial Pilot, or higher, written examination and a minimum of 160 hours of pilot experience: GA 100, GA 102, and GA 103 (9 credit hours).

(3) Satisfactory completion of an Instrument Ground School or satisfactory completion of the FAA Instrument Pilot written examination and a minimum of 200 hours of pilot experience: GA 100, GA 102, GA 103, GA 201 and GA 302 (15 credit hours).

(4) Satisfactory completion of a U.S. military undergraduate pilot training program: A 100, GA 102, GA 103, GA 201, GA 209 and GA 302 (18 credit hours). Graduates of USAF and U.S. Navy pilot training programs will also be granted credit for GA 307.

(5) Satisfactory completion of the FAA Airline Transport Pilot written examination or FAA Certificated Commercial Pilots with a minimum of 2,000 hours of pilot experience: GA 100, GA 102, GA 103, GA 201, GA 209 and GA 302 (18 credit hours).

A student who possesses qualifications not listed above and who considers that his background warrants consideration for advanced standing may submit appropriate evidence of his experience for evaluation or may request that he be administered a by-pass examination for specific courses. Flight experience will be evaluated in accordance with procedures outlined on Page 87.

The Dean of Academics will determine what credits are acceptable in transfer and what will be the advanced standing of the transfer student.

Any concealment by an applicant of previous college registration or previous academic or disciplinary record in college will immediately cancel and nullify the admission process at Embry-Riddle Aeronautical University.

Placement Tests

The American College Testing (ACT) or the Scholastic Aptitude Test (SAT) program is required for any student interested in entering a degree program, either Baccalaureate or Associate.

Since these tests are given several times per year on a nationwide basis, it should be convenient for the student to take the test before arriving on campus. He may contact his high school guidance counselor or principal to determine the location of the nearest testing center. When he registers for the test, his transcript should indicate in the proper space that a transcript of his scores will be sent to our University.

The placement test does not determine approval or disapproval for admission. However, when scores in the various subject areas indicate a weakness, the student is required to enroll in a battery of preparatory courses to improve his skills in that area. Such courses must be passed with C or better before the student may progress with academic work. The preparatory course curriculum cost is the same as regular tuition fees; however, no college credit is given for such courses. Veterans may wish to inquire as to how their VA payments will be affected.

Physical Education

All students enrolled in degree programs are required to complete Physical Education courses as described by the curricula.

The course PE-222 is mainly a theory course designed to assist persons in a continuing personal physical fitness program which is valuable to people of all ages and covers information not usually gained in military physical training.

Transfer of Physical Education course work from another institute may be allowed by the Division Chairman.

Registration for Continued Enrollment

After admission, matriculation, and initial registration a student must register for each trimester in which he plans to enroll. Tuition deposit payment, registration, and payment of fees must be made in accordance with instructions published by the Registrar.

Late fees and penalties are charged for late registration, late payment of fees, and late start of classes. Late registration will be allowed during the first week of classes if unusual circumstances prohibited the student from registering during the proper registration period. (The late registration fee of $50 applies in such cases.) Under no circumstances will registration be allowed after that time.

Students changing class schedules after completing registration will be charged a $10.00 Add Fee for each course added, and for each change of section. (When a change is made by direction of the University, the charge does not apply.)

Students failing to maintain continuous enrollment (as described on Page 31) for any reason, are required to re-apply for admission.

Change of Program

If a student wishes to change his academic or technical program, after he has been admitted, he must apply for such change through the Office of the Registrar. Under no circumstances will a retroactive change of program be accepted by the Registrar. A $10.00 fee will be charged for each change of program.

BACHELOR OF SCIENCE DEGREE CURRICULUM in AERONAUTICAL ENGINEERING

This program is designed to provide the graduate with the skill and knowledge needed to pursue a career as an aeronautical engineer in industry or government. Also it will prepare the student for additional studies at the graduate level. Extensive coverage is given to the broad areas of mathematics, the physical sciences, and the engineering sciences. Aerodynamics, aircraft structures, propulsion, and aeronautical design are covered in depth. The theoretical studies are supplemented with laboratory work which provides the student with a knowledge of experimental methods.

Subject No.		Subject	Lecture	Lab.	Credits
FIRST TRIMESTER					
AE	101	Intro. to Aerospace Engineering	3	0	3
HU	100	English Composition & Literature I	3	0	3
MA	102	College Algebra	3	0	3
MA	103	Trigonometry	2	0	2
PS	105	Chemistry I	3	3	4
ET	101	Engineering Graphics I	1	5	2
					17
SECOND TRIMESTER					
HU	202	Oral Communication of Ideas	2	0	2
MA	201	Calculus & Analytic Geometry I	5	0	5
PS	106	Chemistry II	3	3	4
ET	102	Engineering Graphics II	1	5	2
HU	101	English Composition & Literature II	3	0	3
HU	212	Introduction to Logic	3	0	3
					19*
THIRD TRIMESTER					
MA	202	Calculus & Analytic Geometry II	5	0	5
PS	201	Physics I	4	3	5
EC	110	Economics I	3	0	3
HU	204	Technical Report Writing	2	0	2
SS	201	American History OR			
		SS 101 World History	3	0	3
					18

*The student will not be charged for the extra credit over 18 in this trimester provided he has registered for indicated courses.

FOURTH TRIMESTER					
MA	205	Differential Equations	3	0	3
PS	202	Physics II	4	3	5
ES	201	Statics	3	0	3
ES	203	Fluid Mechanics	3	0	3
SS	205	Psychology or SS 203 Sociology	3	0	3
					17
FIFTH TRIMESTER					
MA	301	Advanced Engineering Mathematics I	3	0	3
ES	301	Strength of Materials	3	0	3
ES	305	Thermodynamics	3	0	3
AE	301	Aerodynamics I	4	0	4
ES	307	Metallurgy & Materials Science	2	3	3
ES	311	Materials & Processes Laboratory	0	3	1
		Humanities Elective	2	0	2
					19*
SIXTH TRIMESTER					
ES	404	Electrical Engineering I	3	0	3
AE	302	Aerodynamics II	3	0	3
AE	304	Aircraft Structures I	3	0	3
ES	303	Dynamics	3	0	3
AE	310	Wind Tunnel Laboratory	1	3	2
PE	222	Science of Exercise and Athletics	2	0	2
		Humanities Elective	3	0	3
					19*
SEVENTH TRIMESTER					
AE	401	Advanced Aerodynamics I	3	0	3
AE	404	Aircraft Structures II	3	0	3
AE	420	Aircraft Design I	2	3	3
ES	405	Electrical Engineering II	3	0	3
ES	401	Mechanical Vibrations	3	0	3
		Open Elective	3	0	3
					18
EIGHTH TRIMESTER					
AE	421	Aircraft Design II	0	6	3
AE	406	Jet & Rocket Propulsion	3	0	3
ES	403	Heat Transfer	3	0	3
		Math Elective	3	0	3
		Open Elective	5	0	5
					17
		TOTAL CREDITS			144

Humanities electives include any courses in the Department of Humanities and Social Science which are not required.

Open electives include any courses in the Departments of Aeronautical Engineering, Engineering Science, Engineering Technology, Mathematics and Physical Science with a subject number of 200 (except MA212) or above only, or any other course not required.

ASSOCIATE OF SCIENCE DEGREE CURRICULUM IN AERONAUTICAL ENGINEERING TECHNOLOGY

A graduate of this program will be prepared for employment as an engineering technician in the aerospace industry. The necessary basic sciences, engineering science, and technical skills, which the engineering technicians must apply to support engineering activities, are included in this program. The Aeronautical Engineering Technology Curriculum provides a background well suited for continuing formal education in this field.

Subject No.	Subject	Lecture	Lab.	Credits
FIRST TRIMESTER				
HU 100	English Composition & Literature I	3	0	3
MA 102	College Algebra	3	0	3
MA 103	Trigonometry	2	0	2
PS 105	Chemistry I	3	3	4
ET 101	Engineering Graphics I	1	5	2
SS 101	World History or SS 201 American History	3	0	3
				17
SECOND TRIMESTER				
HU 102	Oral Communication of Ideas	2	0	2
MA 201	Calculus & Analytic Geometry I	5	0	5
PS 106	Chemistry II	3	3	4
ET 102	Engineering Graphics II	1	5	2
HU 101	English Composition & Literature II	3	0	3
HU 212	Introduction to Logic	3	0	3
				19*
THIRD TRIMESTER				
HU 204	Technical Report Writing	2	0	2
MA 202	Calculus & Analytic Geometry II	5	0	5
PS 201	Physics I	4	3	5
EC 110	Introductory Economics I	3	0	3
SS 205	Psychology or SS 203 Sociology	3	0	3
				18

*The student will not be charged for the extra credit over 18 in this trimester provided he has registered for indicated courses.

FOURTH TRIMESTER

ET	301	Aircraft Drafting	0	6	2
MA	205	Differential Equations	3	0	3
PS	202	Physics II	4	3	5
ES	201	Statics	3	0	3
ES	203	Fluid Mechanics	3	0	3
PE	222	Science of Exercise and Athletics	3	0	2
					18

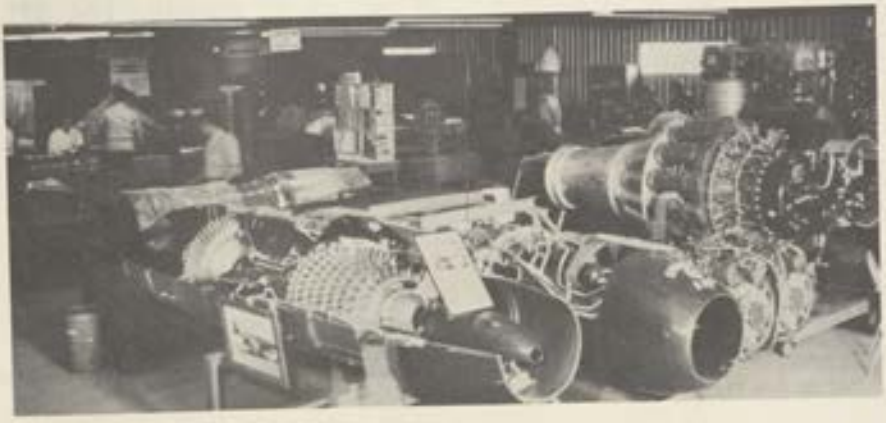
FIFTH TRIMESTER

AE	311	Aircraft Systems Laboratory	0	3	1
ES	301	Strength of Materials	3	0	3
ES	305	Thermodynamics	3	0	3
ES	303	Dynamics	3	0	3
AE	301	Aerodynamics I	4	0	4
ES	307	Metallurgy and Materials Science	3	0	3
ES	311	Materials and Processes Laboratory	0	3	1
					18

SIXTH TRIMESTER

ES	404	Electrical Theory	3	0	3
AE	302	Aerodynamics II	3	0	3
AE	304	Aircraft Structures I	3	0	3
AE	310	Wind Tunnel Laboratory	1	3	2
AE	312	Airframe Laboratory	0	3	1
ET	302	Aircraft Detail Design	0	6	2
GA	210	Aircraft Systems and Components	2	2	3
					17

TOTAL CREDITS 107



BACHELOR OF SCIENCE DEGREE CURRICULUM IN AIRCRAFT MAINTENANCE ENGINEERING TECHNOLOGY

This program is designed to produce qualified maintenance engineering technicians. It is similar to the aeronautical engineering technology program and includes airframe and powerplant technician training. A graduate maintenance engineering technician would provide support for engineering activities associated with the overhaul, repair, and modification of aircraft. *All candidates for graduation must fulfill the requirements of the Airframe and Powerplan Technician Curriculum, page 68, before enrolling in the courses listed below in the third trimester or thereafter.*

Subject No.	Subject	Lecture	Lab.	Credits
FIRST TRIMESTER				
HU 100	English Composition & Literature I	3	0	3
MA 102	College Algebra	3	0	3
MA 103	Trigonometry	2	0	2
PS 105	Chemistry I	3	3	4
ET 101	Engineering Graphics I	1	5	2
SS 201	World History or American History	3	0	3
				17
SECOND TRIMESTER				
MA 201	Calculus & Analytic Geometry I	5	0	5
PS 106	Chemistry II	3	3	4
ET 102	Engineering Graphics II	1	5	2
HU 101	English Composition & Literature II	3	0	3
HU 212	Introduction to Logic	3	0	3
				17*
THIRD TRIMESTER				
SS 205	Psychology or SS 203 Sociology	3	0	3
MA 202	Calculus & Analytic Geometry II	5	0	5
PS 201	Physics I	4	3	5
EC 100	Economics I	3	0	3
HU 202	Oral Communication	2	1	2
				18

*The student will not be charged for the extra credit over 18 in this trimester provided he has registered for indicated courses.

FOURTH TRIMESTER					
ET	301	Aircraft Drafting	0	6	2
MA	205	Differential Equations	3	0	3
PS	202	Physics II	4	3	5
ES	201	Statics	3	0	3
ES	203	Fluid Mechanics	3	0	3
PE	222	Science of Exercise and Athletics	2	0	2
					18
FIFTH TRIMESTER					
ES	303	Dynamics	3	0	3
ES	301	Strength of Materials	3	0	3
ES	305	Thermodynamics	3	0	3
AE	301	Aerodynamics I	4	0	4
ES	307	Metallurgy and Materials Science	3	0	3
HU	204	Technical Report Writing	2	0	2
					18
SIXTH TRIMESTER					
MA	301	Advanced Engineering Mathematics I	3	0	3
AE	302	Aerodynamics II	3	0	3
AE	304	Aircraft Structures I	3	0	3
AE	310	Wind Tunnel Laboratory	1	3	2
		Humanities Electives	6	0	6
					17
SEVENTH TRIMESTER					
ES	404	Electrical Engineering I	3	0	3
AE	404	Aircraft Structures II	3	0	3
AE	420	Aircraft Design I	2	3	3
ET	302	Aircraft Detail Design	0	6	2
		Open Electives	5	0	5
					17

TOTAL CREDITS 121

Humanities electives include any courses in the Departments of Humanities and Social Science which are not required.

Technical electives include any courses in the Department of Aeronautical Engineering, Engineering Science, Engineering Technology, Mathematics and Physical Science with a subject number of 300 or above only.

ASSOCIATE OF SCIENCE DEGREE CURRICULUM IN AIRCRAFT MAINTENANCE ENGINEERING TECHNOLOGY

This program is designed to produce qualified maintenance engineering technicians. It is similar to the aeronautical engineering technology program and includes airframe and powerplant technician training. A graduate maintenance engineering technician would provide support for engineering activities associated with the overhaul, repair, and modification of aircraft. *All candidates for graduation must fulfill the requirements of the Airframe and Powerplant Technician Curriculum, page 68.*

Subject No.	Subject	Lectures	Lab	Credits
FIRST TRIMESTER				
HU 100	English Composition & Literature I	3	0	3
MA 102	College Algebra	3	0	3
MA 103	Trigonometry	2	0	2
PS 105	Chemistry I	3	3	4
ET 101	Engineering Graphics I	1	5	2
SS 101	World History	3	0	3
				17
SECOND TRIMESTER				
HU 102	Oral Communication of Ideas	2	0	2
HU 101	English Composition & Literature II	3	0	3
MA 201	Calculus and Analytic Geometry I	5	0	5
PS 106	Chemistry II	3	3	4
ET 102	Engineering Graphics II	1	5	2
SS 205	Psychology or			
	SS 203 Sociology	3	0	3
				19*
THIRD TRIMESTER				
MA 202	Calculus & Analytic Geometry II	5	0	5
PS 201	Physics	4	3	5
EC 100	Introductory Economics	3	0	3
ET 301	Aircraft Drafting	0	6	2
HU 212	Introduction to Logic	3	0	3
				18

*The student will not be charged for the extra credit over 18 in this trimester provided he has registered for indicated courses.

FOURTH TRIMESTER

MA	205	Differential Equations	3	0	3
PS	202	Physics II	4	3	5
ES	201	Statics	3	0	3
ES	203	Fluid Mechanics	3	0	3
PE	222	Science of Exercise and Athletics	2	0	2
		Humanities Electives	2	0	2
					18

FIFTH TRIMESTER

ES	303	Dynamics	3	0	3
ES	301	Strength of Materials	3	0	3
ES	305	Thermodynamics	3	0	3
AE	301	Aerodynamics I	4	0	4
ES	307	Metallurgy and Materials Science	3	0	3
ES	311	Materials and Processes Lab	3	0	1
HU	204	Technical Report Writing	2	0	2
					19

TOTAL CREDITS 91

Humanities electives include any courses in the Departments of Humanities and Social Science which are not required.

BACHELOR OF SCIENCE DEGREE CURRICULUM IN AVIATION MANAGEMENT

The objective of this program is to prepare graduates to enter the management profession. In addition to the basic degree program outlined, electives may be chosen in the following areas of concentration: Aeronautics, Business Logistics, or Management Science.

Subject	No.	Subject	Lectures	Lab	Credits
FIRST TRIMESTER					
HU	100	English Composition & Literature I	3	0	3
PS	101/ 102	Physical Science (Chemistry OR Earth Science	3	1	3
SS	101	World History	3	0	3
HU	212	Introduction to Logic	3	0	3
MS	110	Accounting I	3	0	3
PE	222	Science of Exercise & Athletics	2	0	2
					17
SECOND TRIMESTER					
HU	101	English Composition & Literature II	3	0	3
MS	100	Introductory Management	3	0	3
MA	100	Basic College Math	3	0	3
PS	103	Physical Science (Physics)	3	1	3
EC	110	Economics I	3	0	3
MS	212	Management Accounting	3	0	3
					18
THIRD TRIMESTER					
HU	202	Oral Communication of Ideas	2	1	2
MA	212	Business Statistics	3	0	3
EC	210	Economics II	3	0	3
SS	201	American History	3	0	3
SS	203	Introduction to Sociology	3	0	3
SS	205	Introduction to Psychology	3	0	3
					17

FOURTH TRIMESTER

MA	209	Introduction to Computer Programming	2	2	3
MA	213	Decision Math	3	0	3
HU	404	Introduction to Philosophy	3	0	3
GA	101	History of Aviation	3	0	3
MS	211	Business Law	3	0	3
MS	213	Principles of Management	3	0	3
					18

FIFTH TRIMESTER

EC	310	Labor Economics	3	0	3
HU	204	Technical Report Writing	2	0	2
MS	311	Marketing	3	0	3
MS	313	Personnel Management	3	0	3
MS	318	Business Data Processing	3	0	3
SS	301	American National Government	3	0	3
					17

SIXTH TRIMESTER

GA	303	Government and Aviation	3	0	3
HU	208	Art Appreciation	2	0	2
MS	315	Finance	3	0	3
MS	316	Psychology of Management	3	0	3
MS	319	Management Information Systems	3	0	3
		Humanities/Social Science Elective	3	0	3
					17

SEVENTH TRIMESTER

HU	209	Music Appreciation	2	0	2
MS	401	Management Planning & Control	3	0	3
MS	420	Industrial Management	3	0	3
		Humanities Elective	3	0	3
		Electives	6	0	6
					17

EIGHTH TRIMESTER

MS	430	Management Applications	3	0	3
		Electives	12	0	12
					15

TOTAL CREDITS 136

Areas of Concentration:

AERONAUTICS (18 hours required). This area of elective concentration allows the student planning to enter the airline, general aviation, or aeronautical manufacturing field to become more technically oriented in such regard. The elective subjects shown below constitute offerings from which to choose. Necessary prerequisites apply.

Subject	No.	Subject	Credits
AE	101	Introduction to Aerospace Engineering	3
GA	203	Aircraft Engines, Reciprocating	3
GA	311	Aircraft Engines, Turbine	3
GA	210	Aircraft Systems and Components	3
ET	215	Electrical Technology	4
GA	201	Meteorology	3
GA	307	Flight Physiology	2
GA	209	Basic Aerodynamics	3
GA	308	Aircraft Performance	3
GA	405	Aviation Law	3
GA	408	Flight Safety	3
GA	410	Air Carrier Operations	3
GA	450	Special Topics in General Aviation	1-4
MA	300	Calculus for Management and Social Sciences	3
MA	412	Math Statistics	3
MA	450	Special Topics in Mathematics	3
MS	330	Traffic Management	3
MS	421	Small Business Management	3
MS	450	Special Topics in Management	1-4

BUSINESS LOGISTICS (18 hours required). Subject area of elective concentration enables the student interested in pursuing a transportation career to become well grounded in the many facets constituting logistic processes of modern business. Such encompasses transport economics, physical distribution, marketing, traffic management, and governmental actions. The electives shown below are courses from which selections may be made. Necessary prerequisites apply.

Subject	No.	Subject	Credits
AE	101	Introduction to Aerospace Engineering	3
EC	105	Economic Geography	3
EC	320	Economics of Industrial Organizations	3
EC	340	Quantitative Analysis in Economic Geography	3
EC	410	Economics of Transportation	3
EC	420	Economics of Air Transportation	3
EC	450	Special Topics in Economics	1-4
GA	310	Air Carrier Operations	3
GA	401	Airport Development and Operation	3
GA	420	Air Cargo	3

GA	450	Special Topics in General Aviation	1-4
MA	300	Calculus for Management and Social Sciences	3
MA	412	Math Statistics	3
MA	431	Linear Programming	3
MA	450	Special Topics in Mathematics	3
MS	340	Physical Distribution Management	3
MS	421	Small Business Management	3
MS	450	Special Topics in Management	1-4

MANAGEMENT SCIENCE (18 hours required). This area of elective concentration provides the student desiring to specialize in management science with an opportunity to acquire subjects of interest and concern. The electives below consist of subjects from which to choose. Necessary prerequisites apply.

Subject	No.	Subject	Credits
EC	105	Economic Geography	3
EC	340	Quantitative Analysis in Economic Geography	3
EC	450	Special Topics in Economics	1-4
MA	201	Calculus and Analytic Geometry I	5
MA	202	Calculus and Analytic Geometry II	5
MA	300	Calculus for Management and Social Sciences	3
MA	319	Computer Programming for Management	3
MA	412	Math Statistics	3
MA	430	Introduction to Linear Algebra	3
MA	431	Linear Programming	3
MA	450	Special Topics in Mathematics	3
MS	421	Small Business Management	3
MS	450	Special Topics in Management	1-4

The elective requirements may be met by any course which is sufficiently different from the courses required (e.g. college algebra is not sufficiently different from basic college math) including flight courses and ROTC.

ASSOCIATE OF SCIENCE DEGREE CURRICULUM IN AVIATION MANAGEMENT

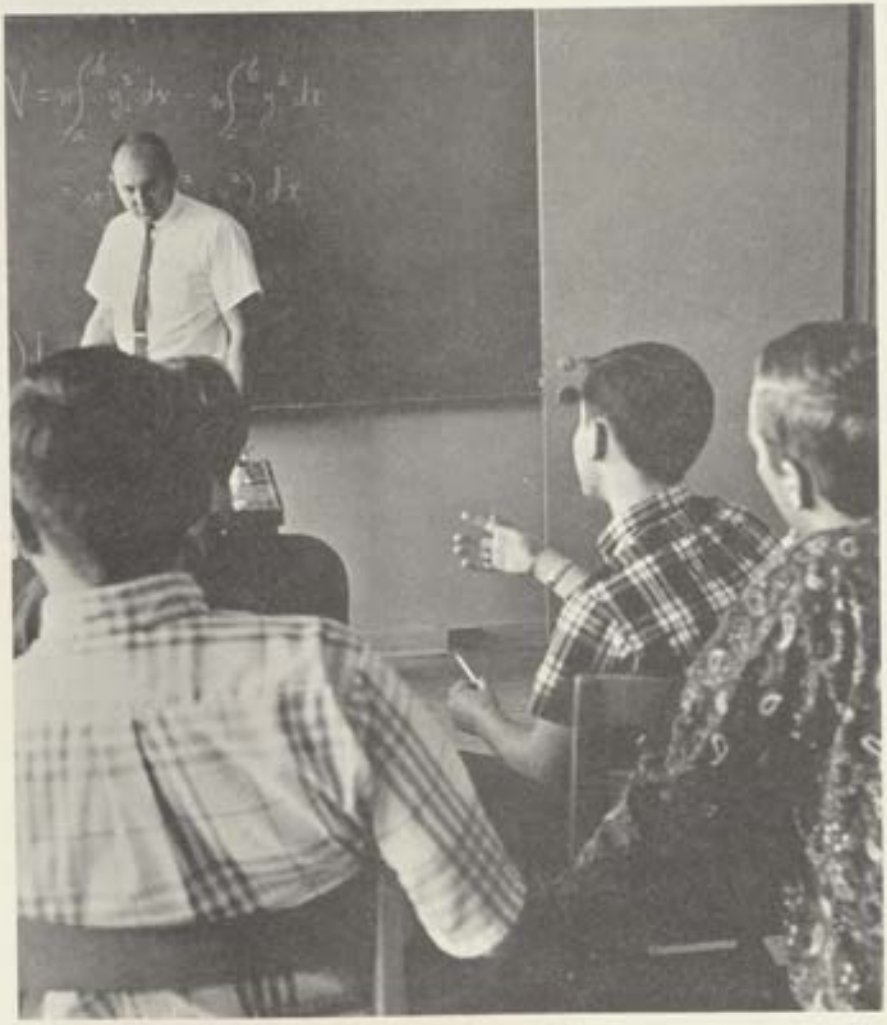
The objective of this program is to provide an elementary knowledge of management for graduates to enter the business world. In addition to aviation this also applies to the other segments of private enterprise and government activities.

Subject	No.	Subject	Lectures	Lab	Credits
FIRST TRIMESTER					
HU	100	English Composition & Literature I	3	0	3
PS	101/ 102	Physical Science (Chemistry or Earth Science)	3	1	3
SS	101/201	World History or American History	3	0	3
HU	212	Introduction to Logic	3	0	3
MS	110	Accounting I	3	0	3
PE	222	Science of Exercise & Athletics	2	0	2
					17
SECOND TRIMESTER					
HU	101	English Composition & Literature II	3	0	3
MS	100	Introductory Management	3	0	3
MA	100	Basic College Math	3	0	3
PS	103	Physical Science (Physics)	3	1	3
EC	110	Economics I	3	0	3
MS	212	Management Accounting	3	0	3
					18
THIRD TRIMESTER					
GA	303	Government & Aviation	3	0	3
HU	202	Oral Communications of Ideas	2	1	2
MA	212	Business Statistics	3	0	3
EC	210	Economics II	3	0	3
SS	203	Introduction to Sociology	3	0	3
SS	205	Introduction to Psychology	3	0	3
					17

FOURTH TRIMESTER

MA	209	Introduction to Computer Programming	2	2	3
MA	213	Decision Math	3	0	3
GA	101	History of Aviation	3	0	3
MS	211	Business Law	3	0	3
MS	213	Principles of Management	3	0	3
HU	204	Technical Report Writing	2	0	2
					17

TOTAL CREDITS 69



BACHELOR OF SCIENCE DEGREE CURRICULUM IN AERONAUTICAL SCIENCE

The objective of this program is to provide the knowledge and skill necessary to enter the aviation field as a professional pilot. General education and aviation related subjects are combined with flight training programmed to produce a pilot with a high level of competence. The curriculum also includes a minor in management to provide the graduate with the background necessary in supervision of flying activities. Incident to completion of the curriculum, the student becomes qualified to obtain the Federal Aviation Administration Commercial Pilot Certificate with Instrument and Multi-Engine ratings. Graduates of this program may consider employment as flight crew members and/or as administrators with the airlines, in general aviation activities, with governmental agencies, or in other aviation-related organizations.

Subject	No.	Subject	Lectures	Lab	Credits
FIRST TRIMESTER					
FC	101	Primary Flight	0	4	2
GA	100	Foundations of Aeronautics	4	0	4
GA	101	History of Aviation	3	0	3
HU	100	English Composition and Literature I	3	0	3
MA	110	Introductory College Mathematics	3	0	3
					15
SECOND TRIMESTER					
FC	112	Basic Flight	0	4	2
GA	102	Navigation I	3	0	3
GA	103	Flight Rules and Regulations	2	0	2
HU	101	English Composition and Literature II	3	0	3
PS	101	Physical Science I (Chemistry) OR PS 102 Physical Science II (Earth Science)	3	1	3
MA	111	College Mathematics for Aviation	3	0	3
PE	222	Science of Exercise and Athletics	2	0	2
					18
THIRD TRIMESTER					
FC	201	Advanced Flight I	0	4	2
GA	201	Meteorology	3	0	3
GA	203	Aircraft Engines—Reciprocating	2	2	3
HU	212	Introduction to Logic	3	0	3
PS	103	Physical Science III (Physics)	3	1	3
MS	100	Introductory Management	3	0	3
					17

FOURTH TRIMESTER

FC	202	Advanced Flight II	0	4	2
GA	209	Basic Aerodynamics	3	0	3
GA	210	Aircraft Systems and Components	2	2	3
EC	110	Economics I	3	0	3
SS	101	World History OR SS 201 American History	3	0	3
SS	203	Introduction to Sociology OR SS 205 Introduction to Psychology	3	0	3
					17

FIFTH TRIMESTER

FC	301	Instrument Flight	0	4	2
GA	302	Navigation II	3	0	3
GA	307	Flight Physiology	2	0	2
GA	311	Aircraft Engines—Turbine	2	2	3
HU	202	Oral Communication of Ideas	2	1	2
MS	110	Accounting I	3	0	3
EC	210	Economics II	3	0	3
					18

SIXTH TRIMESTER

FC	306	Multi-Engine Laboratory	0	2	1
GA	303	Government and Aviation	3	0	3
GA	308	Aircraft Performance	3	0	3
HU	204	Technical Report Writing	2	0	2
MS	212	Management Accounting	3	0	3
MS	213	Principles of Management	3	0	3
		Elective	3	0	3
					18

SEVENTH TRIMESTER

GA	405	Aviation Law	3	0	3
GA	408	Flight Safety	3	0	3
MS	211	Business Law	3	0	3
MS	313	Personnel Management	3	0	3
		Electives (Humanities/Social Sciences)	6	0	6
					18

EIGHTH TRIMESTER

FC	(open)	Flight Elective	0	3	1
GA	410	Air Carrier Operations	3	0	3
SS	301	American National Government	3	0	3
MS	316	Psychology of Management	3	0	3
		Electives	6	0	6
					16

TOTAL CREDITS 137

The elective requirements may be met by any course which is sufficiently different from the courses required (e.g. college algebra is not sufficiently different from basic college math) including ROTC.

ASSOCIATE OF SCIENCE DEGREE CURRICULUM IN AERONAUTICAL SCIENCE

The objective of this curriculum is to provide the student who is interested in a career as a general aviation pilot a college-level educational program in aviation-related and other academic fields while he attains a high level of professional competence as a pilot. Incident to completion of the curriculum the student becomes qualified to obtain the Federal Aviation Administration Commercial Pilot Certificate with Instrument rating.

Subject	No.	Subject	Lecture	Lab.	Credits
FIRST TRIMESTER					
FC	101	Primary Flight	0	4	2
GA	100	Foundations of Aeronautics	4	0	4
GA	101	History of Aviation	3	0	3
HU	100	English Composition and Literature I	3	0	3
MA	110	Introductory College Mathematics	3	0	3
					15
SECOND TRIMESTER					
FC	112	Basic Flight	0	4	2
GA	102	Navigation I	3	0	3
GA	103	Flight Rules and Regulations	2	0	2
HU	101	English Composition and Literature II	3	0	3
PS	101	Physical Science (Chemistry) OR PS 102 Physical Science (Earth Science)	3	1	3
MA	111	College Mathematics for Aviation	3	0	3
PE	222	Science of Exercise and Athletics	2	0	2
					18
THIRD TRIMESTER					
FC	201	Advanced Flight I	0	4	2
GA	201	Meteorology	3	0	3
GA	203	Aircraft Engines—Reciprocating	2	2	3
HU	212	Introduction to Logic	3	0	3
PS	103	Physical Science (Physics)	3	1	3
MS	100	Introductory Management	3	0	3
					17

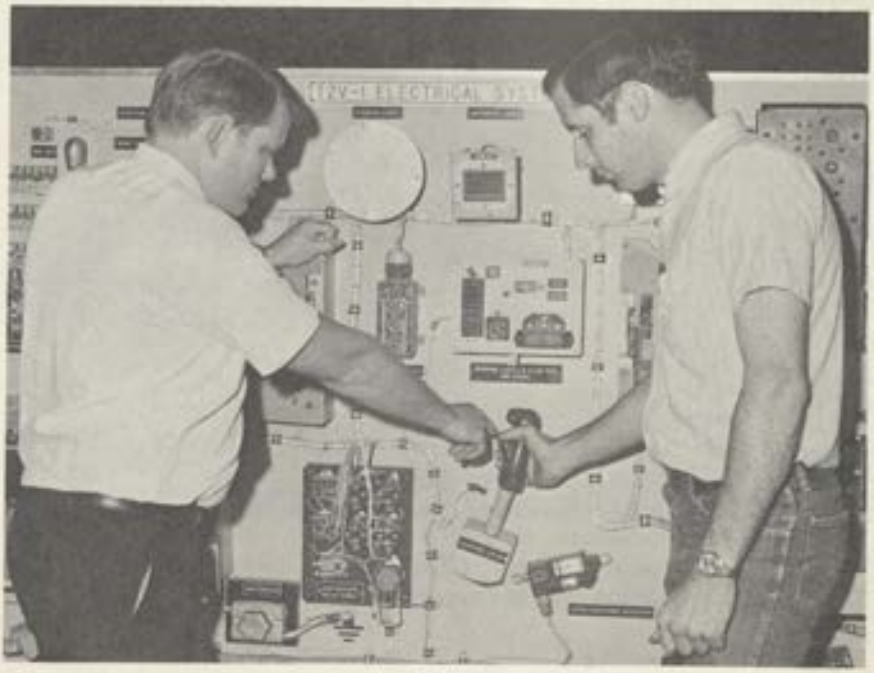
FOURTH TRIMESTER

FC	202	Advanced Flight II	0	4	2
GA	209	Basic Aerodynamics	3	0	3
GA	210	Aircraft Systems and Components	2	2	3
EC	110	Economics I	3	0	3
SS	101	World History OR SS 201 American History	3	0	3
	203	Introduction to Sociology OR SS205 Introduction to Psychology	3	0	3
					17

FIFTH TRIMESTER

FC	301	Instrument Flight	0	4	2
GA	302	Navigation II	3	0	3
GA	307	Flight Physiology	2	0	2
GA	311	Aircraft Engines—Turbine	2	2	3
HU	202	Oral Communication of Ideas	2	1	2
MS	110	Accounting I	3	0	3
GA	303	Government and Aviation	3	0	3
					18

TOTAL CREDITS 85



BACHELOR OF SCIENCE DEGREE CURRICULUM IN APPLIED MATHEMATICS

The objective of this program is to provide the basic education and specialized knowledge which will prepare graduates to enter the aviation industry as applied mathematicians. Students majoring in applied mathematics must select an area of application (minor) in Aeronautics, Engineering or Management. Utilization and application of electronic computers will be stressed in this program.

FIRST TRIMESTER					
HU	100	English Composition & Literature I	3	0	3
MA	102	College Algebra	3	0	3
MA	103	Trigonometry	2	0	2
SS	101	World History	3	0	3
EC	110	Economics I	3	0	3
GA	101	History of Aviation	3	0	3
					17
SECOND TRIMESTER					
HU	101	English Composition & Literature II	3	0	3
MA	201	Calculus and Analytic Geometry I	5	0	5
SS	201	American History	3	0	3
EC	210	Economics II	3	0	3
MA	212	Business Statistics	3	0	3
					17
THIRD TRIMESTER					
MA	202	Calculus and Analytic Geometery II	5	0	5
MA	209	Introduction to Computer Programming	2	2	3
HU	202	Oral Communications of Ideas	2	0	2
HU	212	Introduction to Logic	3	0	3
		Elective (Physical Science)	3-4	0-1	3-5
					16-18
FOURTH TRIMESTER					
MA	213	Decision Mathematics	3	0	3
MA	205	Differential Equations	3	0	3
MA	309	Computer Programming for Engineering	3	0	3
		(or)			
MA	319	Computer Programming for Management			
SS	205	Psychology	3	0	3
		Elective (Physical Science)	3-4	0-1	3-5
					15-17

FIFTH TRIMESTER

MA 314	Introduction to Operations Research	3	0	3
HU 306, 307, or 308,	Literature	3	0	3
	Elective (Minor)	3	0	3
	Elective	6	0	6
				15

SIXTH TRIMESTER

MA 412	Mathematical Statistics	3	0	3
MA 301	Advanced Math I	3	0	3
PE 222	Science of Exercise and Athletics	2	0	2
	Elective (Math)	3	0	3
	Elective (Minor)	6	0	6
				17

SEVENTH TRIMESTER

MA 430	Introduction to Linear Algebra	3	0	3
	Elective (Math)	3	0	3
	Elective (Minor)	3	0	3
	Electives	9	0	9
				18

EIGHTH TRIMESTER

MA 431—	Linear Programming	3	0	3
	Elective (Math)	6	0	6
	Elective (Minor)	6	0	6
	Elective (If needed to total 134 hours)			0-3
				15-18

TOTAL CREDITS 134

AREAS OF APPLICATION (Minor)

Students majoring in Applied Mathematics must select a minor area in one of the fields of Aeronautics, Aviation Management, and Engineering. The student is encouraged to consult with his or her academic advisor and to make certain that the minor selected area is relevant to his or her overall educational objective.

AERONAUTICS (18 hours required)

Subject	No.	Subject	Credits
GA	100	Foundations of Aeronautics	4
GA	201	Meteorology	3
GA	307	Flight Physiology	2
GA	209	Basic Aerodynamics	3

GA	303	Government and Aviation	3
GA	308	Aircraft Performance	3
GA	401	Airport Development and Operation	3
GA	405	Aviation Law	3
GA	410	Air Carrier Operations	3
GA	420	Air Cargo	3
FC	101/ 301	Flight Courses	10

ENGINEERING (18 hours required)

ES	201	Statics	3
ES	203	Fluid Mechanics	3
ES	303	Dynamics	3
ES	401	Mechanical Vibrations	3
ES	404	Electrical Theory	3
ES	405	Electronic for Engineers	3
ES	409	Space Mechanic	3
AE	301	Aerodynamics I	3
AE	302	Aerodynamics II	3
AE	401	Advanced Aerodynamics I	3
AE	402	Advanced Aerodynamics II	3

MANAGEMENT (18 hours required)

MS	100	Introductory Management	3
MS	110	Accounting I	3
MS	211	Business Law	3
MS	212	Management Accounting	3
MS	213	Principles of Management	3
MS	311	Marketing	3
MS	315	Finance	3
MS	318	Business Data Processing	3
MS	319	Management Information Systems	3
MS	401	Management Planning and Control	3
MS	420	Industrial Management	3

In addition to the required electives indicated above, other electives must follow the following guidelines:

Subject Area	Minimum Credit Hours
Social Science	6
Humanities	6
	Maximum Credit Hours
ROTC	16

BACHELOR OF SCIENCE DEGREE CURRICULUM IN AVIATION MAINTENANCE MANAGEMENT

The objective of this program is to provide the basic education and specialized knowledge that will prepare maintenance management graduates to enter the aviation industry. This degree curriculum enhances the potential of qualified aircraft maintenance technicians. A graduate maintenance management individual may perform guidance/supervision and modification of aircraft. The curriculum provides an advantage toward the obtaining of middle and upper level managerial positions in the maintenance management career fields of the airlines, fixed base operators, aircraft companies, corporate business aircraft fleet operators and government flight activities. *All candidates for graduation must have fulfilled the requirements of the Airframe and Powerplant curriculum, page 68.*

Subject	No.	Subject	Lecture	Lab	Credits
FIRST TRIMESTER					
HU	100	English Composition & Literature I	3	0	3
GA	101	History of Aviation	3	0	3
MA	110	Introductory College Math	3	0	3
HU	212	Introduction to Logic	3	0	3
MS	110	Accounting I	3	0	3
PE	222	Science of Exercise & Athletics	2	0	2
					17
SECOND TRIMESTER					
HU	101	English Composition & Literature II	3	0	3
MS	100	Introductory Management	3	0	3
MA	111	College Math for Aviation	3	0	3
SS	101	World History OR 201 American History	3	0	3
EC	110	Economics I	3	0	3
MS	212	Management Accounting	3	0	3
					18
THIRD TRIMESTER					
HU	202	Oral Communication of Ideas	2	0	2
MA	211	Introduction to Statistics	3	0	3
EC	210	Economics II	3	0	3
PS	103	Physical Science (Physics)	3	1	3
SS	205	Introduction to Psychology	3	0	3
MS	213	Principles of Management	3	0	3
					17

FOURTH TRIMESTER

MS	211	Business Law	3	0	3
MA	209	Introduction to Computer Programming	2	2	3
MS	312	Personnel Management	3	0	3
SS	203	Introduction to Sociology	3	0	3
HU	204	Technical Report Writing	2	0	2
		Social Science Elective	3	0	3
					17

FIFTH TRIMESTER

MS	316	Psychology of Management	3	0	3
EC	310	Labor Economics	3	0	3
		Humanities Electives	3	0	3
		Electives	9	0	9
					18

SIXTH TRIMESTER

MS	318	Business Data Processing	3	0	3
SS	301	American National Government	3	0	3
		Electives	9	0	9
					15

TOTAL CREDITS 102

Requirements for undesignated electives may be met by any courses not required including flight courses and ROTC, with the exception of GA 203, 210 and 211.

ASSOCIATE OF SCIENCE DEGREE CURRICULUM IN AVIATION MAINTENANCE MANAGEMENT

This program is designed to enhance the potential of qualified aircraft maintenance technicians. A graduate maintenance management technician would provide guidance/supervision for maintenance activities associated with the general maintenance, overhaul, repair and modification of aircraft. The curriculum provides an advantage toward the obtaining of managerial positions in the maintenance management career fields of the airlines, fixed base operators, aircraft companies, corporate business aircraft fleet operators and governmental flight activities. *All candidates for graduation must have fulfilled the requirements of the Airframe and Powerplant curriculum, page 68.*

Subject	No.	Subject	Lecture	Lab	Credits
FIRST TRIMESTER					
HU	100	English Composition & Literature I	3	0	3
GA	101	History of Aviation	3	0	3
MA	110	Introductory College Math	3	0	3
HU	212	Introduction to Logic	3	0	3
MS	110	Accounting I	3	0	3
PE	222	Science of Exercise & Athletics	2	0	2
					17
SECOND TRIMESTER					
HU	101	English Composition & Literature II	3	0	3
MA	111	College Math for Aviation	3	0	3
SS	101	World History OR			
		201 American History	3	0	3
MS	100	Introductory Management	3	0	3
EC	110	Economics I	3	0	3
HU	202	Oral Communication of Ideas	2	0	2
					17
THIRD TRIMESTER					
HU	204	Technical Report Writing	2	0	2
PS	103	Physical Science (Physics)	3	1	3
EC	210	Economics II	3	0	3
MA	209	Introduction to Computer Programming	2	2	3
SS	205	Introduction to Psychology	3	0	3
MS	213	Principles of Management	3	0	3
					17
				TOTAL CREDITS	51

WELCOME TO THE EMBRY-RIDDLE AERONAUTICAL UNIVERSITY ALUMNI ASSOCIATION

Earning your career degree in Aviation is not all work and no play. At Embry-Riddle you'll have an opportunity to meet people of national prominence who frequently visit one of the most exciting and productive campuses in the country. You'll learn a new language — aviationese — as you "hangar fly" with instructors and contemporaries or enjoy the drawing board conversations after an interesting day at the wind tunnel, or in classrooms.

And after Graduation, with two to four years of achievement behind you, you will want to maintain your ties with your classmates, with those who have gone into aviation ahead of you and those who will follow you. More than 75,000 Embry-Riddle Alumni are scattered across the world. Since 1926 many men have risen to great heights of their chosen field. Embry-Riddle Alumni Chapters are formed, and being formed, all around the country. One very active Chapter is located in England and its membership is made up of former RAF pilots trained at Embry-Riddle during WW 2.

As an Alumni member you will receive periodic publications to keep you updated on the University as well as the current activities of other members. An Annual Alumni Convention is held around Graduation time to which you and your family are invited. Bring the wife and children back to Daytona Beach and Embry-Riddle to show them where you spent your academic years. They'll enjoy the beach too.

Upon Graduation you will be invited to join the Alumni Association and take an active part in the growth and development of your Alma Mater. Those who graduated ahead of you and who are now succeeding in the World of Aviation look forward to welcoming you into the active ranks of the Embry-Riddle Aeronautical University's Alumni Association.

COLLEGE OF AVIATION TECHNOLOGY CURRICULA

COLLEGE OF AVIATION TECHNOLOGY

DIVISION OF MAINTENANCE TECHNOLOGY

Introduction

The Maintenance Technology Division is an approved training center, operating under Air Agency Certificate No. 277, issued by the Federal Aviation Administration of the United States of America. Courses offered in this division give the student actual expereince by classroom instruction, shop practice, and "on the job" training. In the Embry-Riddle Repair Station, many types of engines, aircraft and accessories are overhauled and returned to service. This provides an opportunity for students to learn first hand the construction, operation, overhaul and maintenance of powerplants and structural components of aircraft.

A Flight Engineer Ground School Course in Turbojets of one-half trimester duration is offered in this division to Commercial Pilots or Certificated Airframe and Powerplants Maintenance Technicians. This course prepares the student for the Basic and Turbojet Class Rating FAA written examinations in preparation for certification as a Flight Engineer.

Admission

Applications will be considered for admission who have graduated from accredited high schools with satisfactory records. Non high school graduates who have been awarded high school equivalency diplomas or have completed work at accredited technical institutes with satisfactory grades and are in good standing at the last school attended also will be considered.

In certain cases, mature applicants who fail to meet the above requirements but present other suitable criteria, such as honorable service in the Armed Forces or employment experience, will be considered for admission.

Any concealment by an applicant of previous college registration or previous academic or disciplinary record in college will immediately cancel and nullify the admission process at Embry-Riddle Aeronautical University.

Transfer Students and Program Changes

Part 147 of the Federal Aviation Regulations establishes rules regarding credit for previous training and requires testing on any subjects considered for transfer credit. These tests include questions on Federal Aviation Regulations and procedures as well as the technical aspects.

Generally speaking, students experienced in the military aviation mechanic field have a limited knowledge of Federal Aviation rules, regulations, and procedures. Such students are enrolling in an ap-

proved school to prepare themselves for work in civil aviation where, in most cases, they will be operating under regulations much different than those encountered in the military.

Students with aviation background training (civilian, military, or approved schools) may request advanced standing for specific parts of the curriculum. Applications for advanced standing must be submitted to the Chairman of the Maintenance Technology Division during the first trimester of enrollment. Requests will be evaluated on an individual basis.

Advanced standing and transfer credit granted in accordance with these procedures will be authenticated by the appropriate Division Chairman or Department Head, as appropriate and validated by the registrar for official records purpose. An "Evaluation for Transfer Credit" or "Evaluation for Advanced Standing" form will be provided the student and his academic advisor.

Schedule

The Maintenance Technology Division operates on a schedule which permits enrollment every 7½ weeks. Classes are in session 6 hours per day or 30 hours per week.

Attendance

Absenteeism in excess of three consecutive (6) hour classes or of any four (6) hour classes in a four-week period during an SL subject may result in a decision that the student be interrupted or dismissed. Should such absences be unexcused, interruption or dismissal becomes automatic at the end of the third or fourth absence to be effective as of the last day of attendance.

Grading System

The Maintenance Technology Division uses the numerical grading system of 0 to 100 as required by the Federal Aviation Administration. Students are graded in three areas.

They are:

a. Results obtained on written examinations.
b. Performance in shop projects.
c. Application of effort, attention to duty, attitude and ability to get along with fellow students.

Grades are made a matter of permanent record and are available to the FAA and prospective employers.

Graduation

Embry-Riddle awards a Certificate of Graduation to all students successfully completing any of the F.A.A. approved courses. This

document certifies that the bearer has graduated from an FAA approved school. It must be presented to the appropriate official before taking the FAA Maintenance Technician examinations. In addition, graduates receive the Embry-Riddle Aeronautical University Diploma.

FAA Written, Practical and Oral Examinations

The final step in becoming a certified Aviation Maintenance Technician is successful completion of the FAA written test (knowledge requirement) and practical and oral examination (skill requirement). A student may elect to take these tests and examinations wherever he chooses or take advantage of the certification program which Embry-Riddle Aeronautical University offers. This program is neither part of the regular curriculum nor are the hours counted as part of the minimum requirements. It consists of written tests, and practical and oral examinations. Each applicant must satisfactorily complete each phase of testing with a grade of 70% or better to be eligible for his FAA Aviation Maintenance Technician certificate. A fee of $40.00 total (Airframe and Powerplant) or $20 each (Airframe or Powerplant) is charged for Orals and Practicals conducted on campus by Embry-Riddle employed FAA Designated Maintenance Examiners. Fee includes use of necessary equipment and material.

AIRFRAME AND POWERPLANT CURRICULUM

4½ Trimesters (15 Weeks Each)

This course is a combination of the Airframe and Powerplant curriculums and provides a total of 2025 classroom and shop hours for the teaching of all the skills necessary to provide the graduate with a theoretical and practical knowledge, as well as a manipulative ability to repair aircraft, engines and systems. In addition, the graduate is repeatedly tested to ensure that he possesses adequate knowledge to successfully pass the FAA examination for the Airframe and Powerplant Certificate which will permit him to sell his services to the public as a government-certified aviation Maintenance Technician.

Requests from students enrolled in this combination Airframe and Powerplant curriculum to change to the straight Airframe or straight Powerplant curriculum must be submitted during the first half-trimester.

Trimester	Subject No.	Subject
First	SL 010	General Aeronautics
	SL 011	Basic Aircraft Science
Second	SL 012	Basic Powerplant Science
	SL 013	Aircraft Systems
Third	SL 014	Electrical Laboratory
	SL 015	Engine & Accessory Overhaul
Fourth	SL 016	Jet Propulsion Lab.
	SL 017	Aircraft Structures
Fifth (one-half)	SL 018	Weight & Balance, Propellers and Course Review

Total hours..... 2025

AIRFRAME CURRICULUM

3 Trimesters (15 Weeks Each)

The course limits its study to the Airframe subjects and licensing requirements of the Airframe and Powerplant Maintenance Technician Curriculum described above.

Trimester	Subject No.	Subject
First	SL 010	General Aeronautics
	SL 011	Basic Aircraft Science
Second	SL 013	Aircraft Systems
	SL 014	Electrical Laboratory
Third	SL 017	Aircraft Structures
	SL 018	Weight & Balance, Propellers and Course Review

Total Hours..... 1350

POWERPLANT & TURBINE ENGINE CURRICULUM

3 Trimesters (15 Weeks Each)

This course limits its study to the powerplant subjects and licensing requirements of the Airframe and Powerplant Maintenance Technician Curriculum described above.

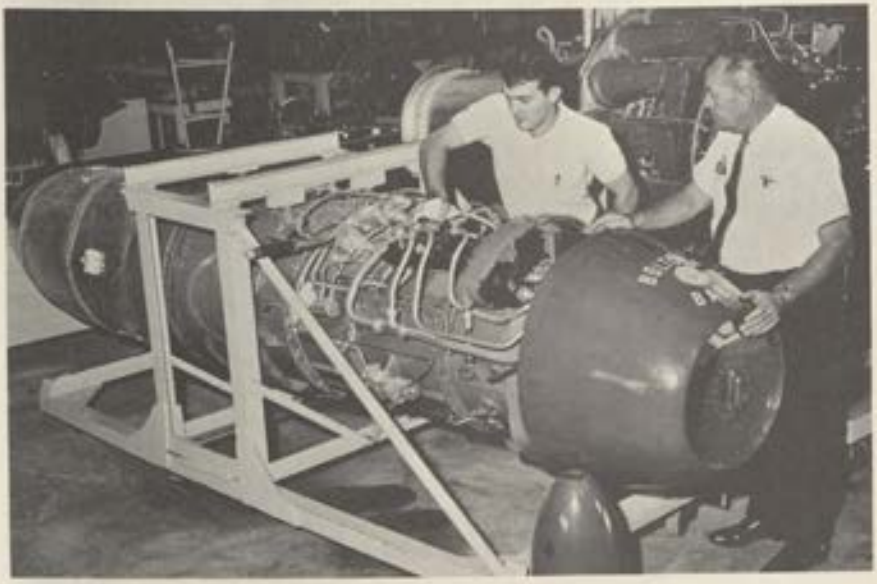
Trimester	Subject No.	Subject
First	SL 010	General Aeronautics
	SL 012	Basic Powerplant Science
Second	SL 014	Electrical Laboratory
	SL 015	Engine and Accessory Overhaul
Third	SL 016	Jet Propulsion Laboratory
	SL 018	Weight & Balance, Propellers and Course Review

Total Hours.....1350

FE 010 — FLIGHT ENGINEER GROUND SCHOOL COURSE (TURBOJET)

One-Half Trimester (7½ Weeks)

This course prepares the student for the Basic and Turbojet Class Rating FAA written examination in preparation as a Flight Engineer. Total Hours — 240.



COLLEGE OF AVIATION TECHNOLOGY

DIVISION OF FLIGHT TECHNOLOGY

Introduction

The Division of Flight Technology conducts flight training and ground school to prepare individuals for the various Federal Aviation Administration (FAA) pilot certificates. The Division also conducts the flight training courses required by the Aeronautical Science curriculum.

Advanced standing may be granted in any flight course by demonstrating flight proficiency. A student desiring advanced standing and credit for previous flight experience may apply upon entering school.

The Professional Flight Program is not administered in accordance with the trimester academic calendar. Flight class schedules are included in the brochure material which supplements the Bulletin.

Embry-Riddle utilizes modern, late model aircraft. These aircraft are scrupulously maintained and are equipped with up-to-date radio and electronic navigation devices. Students accomplish multi-engine flight training in the Twin Beech D-18 or Douglas DC-3. Instructors give close personal attention to each student from the time of his initial orientation to the day he graduates regardless of the course in which he is enrolled.

In order to obtain one or more FAA pilot certificates, a student must pass a written examination, satisfy prescribed hours of flying experience and must demonstrate proficiency in executing certain flight maneuvers. The flight courses described herein provide the minimum training necessary to qualify for the respective FAA ratings. If additional flying hours are needed to meet proficiency standards, this time is charged at the rate per hour indicated on page 15. When considering these rates, one should realize that the cost covers training administered according to adequate standards by a staff specifically organized for this purpose.

Admission

Students will be admitted who meet the general requirements for admission (see page 9) and the physical qualifications for a flight training program. Prior to being accepted into a flight training program, a student must produce evidence that he has qualified for at least the Airman's Class III Medical Certificate. If the student's goal is beyond the Private Pilot level, he should assure himself that he meets the medical qualifications. To be eligible for the Commercial License, a student must possess an Airman's Class II Medical Certification. Airline employers generally require the Airman Class I Certification, which is required for the Air Transport Rating.

Any concealment by an applicant of previous college registration or previous academic or disciplinary record in college will immediately cancel and nullify the admission process at Embry-Riddle Aeronautical University.

Transfer of Previous Flight Experience

Part 141 of the Federal Aviation Regulations establishes rules regarding credit for previous flight training and requires that adequate evaluation be accomplished before any credit may be transferred. This regulation further specifies that credit for previous training and knowledge obtained at other than an FAA approved school may not exceed more than fifty percent of the curriculum requirements of any flight course.

Students enrolled in the College of Aeronautical Studies who have completed flight courses at other accredited institutions of higher education will be granted academic transfer credit for these courses.

Any other applicants desiring advanced standing for previous flight experience, whether in the College of Aeronautical Studies or in the Professional Pilot program, must provide official documentation from institutions previously attended indicating the type of ground and flight training received and the number of hours of each successfully completed. Personal Flight Logs will be evaluated in those instances in which no other documentation is available. The flight training will be evaluated and standing determined by the ERAU Flight Training Department. All upper division flight courses (300 and 400 level) at Embry-Riddle must be completed in residence unless exception is made by the Chairman of the Flight Technology Division on an individual basis.

A student seeking advanced standing in any flight program will be subject to an evaluation to determine the flight course in which the student will be enrolled in the program. A flat fee will be charged for each evaluation flight: $20 single-engine; $37 multi-engine centerline thrust; $65 multi-engine (D-18); $150 DC3.

Students whose previous flight experience reflects flight experience well above the level which the flight evaluation reveals may be authorized enrollment in a special flight course which would be designed to permit the student to attain a degree of flying proficiency more commensurate with his background.

Once a student enrolls at Embry-Riddle he must accomplish all subsequent flying required by the program in which he is enrolled in residence in order for credit to be granted toward completion of his program.

Advanced standing and transfer credit granted in accordance with these procedures will be authenticated by the appropriate Division Chairman or Department Head, as appropriate and validated by the Registrar for official records purpose. An "Evaluation for Academic Transfer Credit" or "Evaluation for Advanced Standing" form will be provided the student and his academic advisor.

Schedules

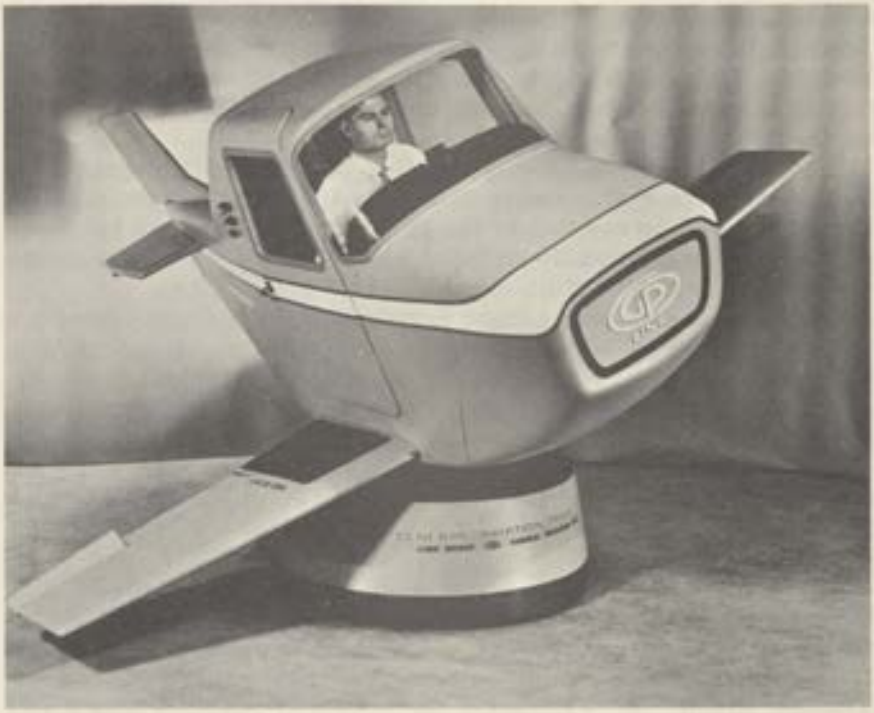
The flight line is open for scheduled flights throughout the week. Each student is responsible for meeting flight and ground training commitments as scheduled.

Professional Pilot Program Graduation

Embry-Riddle awards the Certificate of Graduation to all students successfully completing any of the FAA approved courses. This document certifies that the bearer has graduated from an FAA approved school and must be presented to the appropriate official before taking the FAA Flight Examinations. In addition, the Embry-Riddle Professional Pilot Diploma may be earned by successfully completing at the University the Commercial Pilot and Instrument courses, plus either of the Multi-Engine Flight courses or the Flight Instructor course.

FAA Written and Flight Examinations

FAA written examinations are administered locally upon completing approved ground courses. Flight tests are given by Embry-Riddle Staff FAA Flight Examiners.



PROFESSIONAL PILOT PROGRAM CURRICULUM

This program is concerned exclusively with teaching students how to fly. Students receive concentrated training in various types of flying, including instrument and multi-engine flight. Ground school subjects, closely correlated with flying, round out the students' professional training. Successful completion of the Intermediate Phase makes students eligible for Federal Aviation Administration Commercial Pilot Certificates with the Instrument Rating.

PRIMARY PHASE (Seven weeks)

Course No.	Course Name	Training Hours*
AS 003	Commercial Ground School I	45
FC 100	Private Pilot Flight (Flight Hours — 45	54

INTERMEDIATE PHASE (Six months)

AS 009	Commercial Ground School II	150
AS 017	Aircraft Engines & Systems	75
AS 021	Instrument Ground School	75
AS 042	Fundamentals of Flight Instructing	75
FC 200	Commercial Flight I	176**
FC 240	Commercial Flight II	181#
FC 260	Commercial Flight III	157#
FC 301	Instrument Flight I	45
FC 302	Instrument Flight II (Accumulated Flight Hours — 168 or more)	45

ADVANCED FLIGHT ELECTIVES

FC 306	Multi-Engine Flight I	27
FC 404	Flight Instructor Airplane	37
FC 407	Multi-Engine Flight II (DC-3)	27
FC 409	Flight Instructor Instrument	37

*Includes Dual, Solo, Oral, and Link training in flight courses.

**ERAU students continuing from Primary Phase.

#Depending on credit for previous training.

COMBINED AERONAUTICAL PROGRAMS

Students who are enrolled at Embry-Riddle in programs other than Professional Pilot, Associate in Aeronautical Science or Bachelor in Aeronautical Science may elect to enroll in flight courses while pursuing their other studies. Flight courses may be taken for credit or audit (see page 26). Successful completion of the courses outlined below makes the student eligible for Federal Aviation Administration certificates and ratings at the level indicated. The schedule outlined below is a guide for students enrolled in combined programs. Additional flight electives are available as the student's basic technical or academic schedule permits. The credit hours assigned for each course are considered a part of the maximum 18 hour load per trimester, and may be counted toward degree requirements in accordance with the criteria established for electives in each degree program.

Trimester	Subject No.		Subject	Equivalent Credit Hours
First	GA	100	Foundations of Aeronautics	4
	FC	101	Primary Flight	2
			Flight Hours — 45	
			(Private Certificate)	
Second	GA	102	Navigation I	3
	GA	103	Flight Rules & Regulations	2
	FC	112	Basic Flight	2
Third	GA	201	Meteorology	3
	*GA	203	Aircraft Engines—Reciprocating	3
	FC	201	Advanced Flight I	2
Fourth	*GA	209	Basic Aerodynamics	3
	*GA	210	Aircraft Systems & Components	3
	FC	202	Advanced Flight II	2
			Accumulated Flight Hours — 168	
			(Commercial Certificate)	
Fifth	GA	302	Navigation II	3
	FC	301	Instrument Flight	2
			Accumulated Flight Hours — 188	
			(Instrument Certificate)	
Sixth	FC	306	Multi-Engine Laboratory	1
			Accumulated Flight Hours — 203	
			(Multi-Engine Certificate)	
	AS	042	Fundamentals of Flight Instructing	
	FC	404	Flight Instruction Flight	1
			Accumulated Flight Hours — 213	

*The following substitutions may be made: AE 411 for GA 203, AE 301 for GA 209, AE 311 for GA 210.
AS 042 and FC 404 may be substituted for FC 306.

Embry-Riddle is co-educational because many fine careers are available in aviation to educated young women.

COURSE DESCRIPTIONS

COURSE DESCRIPTIONS
DEPARTMENT OF AERONAUTICAL ENGINEERING

AE 101—INTRODUCTION TO AEROSPACE ENGINEERING — 3 Credits

The aerospace industry. Manufacturing processes; airframe construction, design, structural materials, assembly. Production planning; scheduling, PERT, sub-contracting. Covers design, and construction and test of aerospace vehicles; aircraft, rocket boosters, spacecraft, and their propulsion systems. Systems engineering; airframe, propulsion, electronics, control mission analysis, system interfaces. To be taken during first year.

AE 301—AERODYNAMICS I — 4 Credits

A study of the atmosphere and the fundamental dynamics and thermodynamics of air. Laminar and turbulent boundary layers and vortex motion. Development of lift drag and moment equations and their variation with Mach number and Reynolds number. Supersonic airfoil theory. Correlating factors influencing wing design. Theories of drag and their application. Momentum, blade element, and vortex theories of propellers. Prerequisites: MA 202, ES 203.

AE 302—AERODYNAMICS II — 3 Credits

Static performance, including power required and power available for level flight. Effect of weight and altitude on power climb performance, ceiling determination, and time to climb. Special performance problems including take offs and landings, range, and endurance. Maneuvers such as spins, stalls, turning, gliding and diving. Theory of control surfaces and their design. Longitudinal, lateral and directional stability and control. Prerequisite: AE 301.

AE 304—AIRCRAFT STRUCTURES I — 3 Credits

Space structures. Introduction to fuselage stress analysis and wing structural analysis. Inertia force and load factors for airplane different flying and landing conditions. Strength of structural members under tension, compression, bending and torsional load; combined loadings. Prerequisite: ES 301.

AE 310—WIND TUNNEL LABORATORY — 2 Credits

Speed setting calibration. Pressure distribution with multimanometer of NACA airfoil on two dimensional wing and the calculation, tabulation, and plotting of the lift coefficient, center of pressure, pitching moment coefficient, and the profile and total drag coefficient at all flight angles of attack for both the plain wing and the wing with deflected flaps. Airfoil characteristics from data.

Laminar, transition, and turbulent flow boundary layer. Three dimensional wing tip vortex flow direction and magnitude variation. Prerequisite: AE 301.

AE 311—AIRCRAFT SYSTEMS LABORATORY 1 Credit

Laboratory work with hydraulic, electric, propeller and fuel system mock-ups and cutaways.

AE 312—AIRFRAME LABORATORY 1 Credit

Airframe configurations and various aerodynamics and structural design features.

AE 331—AIRPLANE STABILITY & CONTROL 3 Credits

Development of longitudinal, lateral and roll stability and control. Control surface design; control effectiveness, size requirements. Dynamic control theory. Handling characteristics of aircraft. Prerequisite: AE 302; to precede AE 420.

AE 333—AERODYNAMICS OF THE HELICOPTER 3 Credits

The development of rotating-wing aircraft and the helicopter. Hovering theory and vertical-flight performance analysis. Autorotation. Physical concepts of blade motion and control. Aerodynamics and performance of forward flight. Stall, stability and vibration problems. Design problems. Prerequisite: AE 302, an elective course.

AE 401—ADVANCED AERODYNAMICS I 3 Credits

Kinematics and dynamics of a fluid field, stream function in two dimensional incompressible flow; theorem of stokes, Kuttajoukowski Theorem. Introduction to compressible fluid, and some applications of one-dimensional compressible flow. Wave phenomena, normal shock, oblique shock, Prandtl-Meyer expansion waves and reflection of waves. Prerequisites: AE 301, AE 302, MA 301.

AE 402—ADVANCED AERODYNAMICS II 3 Credits

The dynamics of viscous fluid, boundary layers, Principle of Similarity; Transition and turbulent flow, Navier-Stokes Equations, Aerodynamic characteristic of wing, and real fluid effects in high speed flight. Prerequisite: AE 401.

AE 404—AIRCRAFT STRUCTURES II 3 Credits

Analysis of members of semi-monocoque structures, external loads on the airplane and air load distribution. Analysis of aircraft materials, members in combined stress joints and fittings. Prerequisite: AE 304.

AE 405—AIRCRAFT STRUCTURES III 2 Credits

Deflection of airplane structures, and statically indeterminate structures. Design of web in shear. Strain energy principle, method of least work and special method analysis. Prerequisite: AE 404.

AE 406—JET AND ROCKET PROPULSION 3 Credits

A study of ramjets, pulsejets, turbojets, and turboprops. Thrust and propulsion, engine efficiencies, fuel consumptions, nozzle flows and Rayleigh and Fanno line conditions. Subsonic and supersonic diffusers. Mass flow. Energy transfer. Centrifugal and Axial compressors. Engine and aircraft flight performance. Solid and liquid propellant rocket motors. Prerequisite: AE 401.

AE 411—AIRCRAFT PROPULSION SYSTEMS LABORATORY 1 Credit

A study of piston, jet, and rocket powerplant used in aircraft. Lab fee $10.00.

AE 420—AIRCRAFT DESIGN I 3 Credits

Principles of the design of modern aircraft to meet prescribed aerodynamic, structural, and performance specifications. Prerequisites: AE 302, and AE 304. Corequisite: AE 404.

AE 421—AIRCRAFT DESIGN II 3 Credits

Design of aircraft and aircraft components; projects encompassing the principles of the engineering and aeronautical sciences. Prerequisites: AE 420 and AE 404.

AE 450—SPECIAL TOPICS IN AERONAUTICAL ENGINEERING 1-6 Credits by arrangement

Lectures, laboratories, or seminars are selected topics in aeronautical engineering. Prerequisites: consent of instructor. May be repeated with a change of content.

DEPARTMENT OF AIR SCIENCE

AS 003—COMMERCIAL GROUND SCHOOL I

Theory and facts of flight. General service and flight safety in practice. Air traffic control and communications procedures. FAA regulations for the pilot. Aerial navigation meteorology as it affects the safe operation of aircraft and other aviation subjects in preparation for the FAA private pilot written examination.

AS 009—COMMERCIAL GROUND SCHOOL II

A comprehensive study of different subjects which include Meteorology, how and why weather forms; The National Aviation Weather System, charts, forecasts; Practical Air Navigation, use of pilotage, dead reckoning, the navigational computer, use of electronic navigation aids such as ILS, radar, VOR and ADF; Federal Air Regulations for the Commercial Pilot; Aircraft Performance which delves into take-off performance, the climb, cruise control, range and endurance; Weight and Balance, computation method, table method and use of the loadmaster for large and small aircraft; Aerodynamics, forces affecting the aircraft. The subject matter covered in this course exceeds the minimum required in preparation for the FAA commercial pilot written examination.

AS 017—AIRCRAFT ENGINES AND SYSTEMS

Flight and Engine Instruments, analysis of the operation of pitot-static system, gyros, jet and reciprocating engine instruments; Reciprocating Powerplants, manipulation of advanced engine controls, control of systems and adverse weather starting and operation; Turbine Engines, structures, components and operation.

AS 021—INSTRUMENT GROUND SCHOOL

The comprehensive study of gyro and differential pressure instruments including their construction and operating characteristic. Interpretation and practical use of Instrument Approach Charts, Enroute Charts and associated in flight procedures. Interpretation of FAR's pertaining to instrument flight, departure, enroute, arrival and emergency procedures. Aviation weather for the instrument pilot including weather charts and forecast interpretation, severe weather, elementary forecasting and practical application of weather knowledge. IFR flight planning including the use of flight analysis and all associated computations. Air Traffic Control procedures and how they effect the instrument flight. This course exceeds the minimum knowledge requirements needed to prepare for the FAA instrument pilot written examination.

AS 042—FUNDAMENTALS OF FLIGHT INSTRUCTING

A study of the fundamentals of teaching and learning; effective teaching methods; instructional management; aeromedical information for instructors; instructor responsibilities; flight training syllabus; federal regulations for instructors and maneuver analysis in preparation for the FAA flight instructor airplane written examination.

DEPARTMENT OF ECONOMICS

EC 105—ECONOMIC GEOGRAPHY (formerly EC 301) 3 Credits

Study of regional variation on the earth's surface in man's activities related to producing; exchanging and consuming wealth. Commercial bioculture, mining, manufacturing, transportation and trade studied. Tertiary economic activity and measurement, theory and planning in relation to regions and communities stressed.

EC 110—ECONOMICS I (formerly EC 101) 3 Credits

An introduction to economic principles, problems and policies with emphasis on macroeconomic theory, business fluctuations, fiscal and monetary policy, economic growth and comparative economic systems.

EC 210—ECONOMICS II (formerly EC 201) 3 Credits

A continuation of Economics I, with emphasis on price and distribution theory, and international trade. Prerequisite: EC 110 or consent of the instructor.

EC 310—LABOR ECONOMICS 3 Credits

A survey of the economics of the labor market: wage determination and employment theory. Labor organization, labor legislation and current developments in labor relations. Prerequisites: EC 110 and EC 210 or consent of the instructor.

EC 320—ECONOMICS OF INDUSTRIAL ORGANIZATION 3 Credits

Market structures in American Capitalism. Structure and behavior of firms in particular industries. Government regulation of industry. Anti-trust Laws, Transportation and Public Utilities. Prerequisites: EC 110 and EC 210.

EC 330—HISTORY OF ECONOMIC THOUGHT 3 Credits

A history of the development of economic principles and doctrines including Mercantilism, the Classical School, Socialism, Marxism, Austrian and Neo-Classical Economics, the Historical School, American Institutionalism, and Keynesian Economics. Prerequisites: EC 110, EC 210, SS 101, SS 201, and SS 203 and consent of the instructor.

EC 340—QUANTITATIVE ANALYSIS IN ECONOMIC GEOGRAPHY 3 Credits

Introduces the beginning student in Economic Geography to simple quantitative techniques being used in current research. Basic

concern is to demonstrate how they may be used in Economic Geography. Applicable to offerings in marketing, transportation, physical distribution, and airports. Prerequisites: EC 105 and MA 212.

EC 410—ECONOMICS OF TRANSPORTATION 3 Credits

A study of the economics of rail, motor, water, pipeline and air transportation. Oriented to the total approach. Considers tariffs, government regulation, preparation for and movement of traffic, and the economic implications which flow from improvement in transportation. Relates transportation to availability of goods, price stabilization and equalization, land values, division of labor, large scale production, competition, urbanization, etc. Prerequisites: EC 210, EC 340, MS 311.

EC 420—ECONOMICS OF AIR TRANSPORTATION 3 Credits

A study of the economic aspects of aircraft, airways, airports, federal aid and regulation, air carriers, general aviation, and the manpower requirements of the civil aviation industry. Prerequisites: EC 410, GA 303, and MS 340.

EC 450—SPECIAL TOPICS IN ECONOMICS 1-4 Credits

Lectures, seminars, laboratories, independent studies, or combinations on selected topics in economics. Prerequisites: consent of the instructor and approval of Department Head/Division Chairman. May be repeated with a change of content.

DEPARTMENT OF ENGINEERING SCIENCE

ES 201—STATICS 3 Credits

Fundamental concepts and definitions of forces, moments, and couples. Components and resultants of force systems. Equilibrium of force systems. Analysis of trusses, frame and cables. Friction, centroids and moments of inertia. Prerequisites: MA 201, MA 202.

ES 203—FLUID MECHANICS 3 Credits

Fluid properties and definitions. Fluid statics. Basic concepts and equations of fluid-flow. Viscous effects. Reynolds number. Dimensional analysis and dynamics similitude Flow through pipe and two-dimensional ideal fluid flows. Prerequisite: MA 202.

ES 301—STRENGTH OF MATERIALS 3 Credits

Stresses and strains in tension, compression and shear. Torsion. Shear and bending moment in beams. Fixed and continuous beams.

Deflections of beams. Analysis of plane stress and strain. Columns. Riveted and welded connections. Energy methods. Theories of failure. Prerequisite: ES 201.

ES 303—DYNAMICS 3 Credits

Kinematics and kinetics of translation, rotation and general plane motion; work, energy, and power; impulse, momentum, and impact. Prerequisite: ES 201.

ES 305—THERMODYNAMICS 3 Credits

The various processes of energy exchanges between heat and mechanical power with certain gases and vapors for the design of all types heat engines, turbines, missiles, compressors, and refrigerators. A study of all basic laws and principles governing both the non-flow and steady-flow processes fundamental in performance cycles of equipment mentioned, whether by use of different ideal gases, vapors, or mixtures. Prerequisites: MA 202, PS 202.

ES 307—METALLURGY AND MATERIALS SCIENCE 3 Credits

A study of the fundamental nature of metals, alloys, and plastics with emphasis on those used in the aircraft industry. Crystal structure, crystallization, and elements of the solid state semiconductors. Phase and equilibrium diagrams. Heat treatment of steel and other alloys. Surface hardening methods and methods of shaping materials. Various physical tests of materials. Materials-joining processes. Corrosion and its prevention. High temperature problems. Prerequisites: PS 105, PS 106, and PS 202. $10.00 lab fee.

ES 311—MATERIALS AND PROCESSES LABORATORY 1 Credit

Sheet metal. Welding. Riveting, power grinding, power saw, nibbler, drill press, lathe, rolls, crimping machine. Basic shop procedures. $10.00 lab fee.

ES 401—MECHANICAL VIBRATIONS 3 Credits

Fundamental principles. Rotation. Simple harmonic motion. Complex numbers. Undamped and damped free vibration. Forced vibration. Two-degrees of freedom. Multi-mass torsional and transverse systems. Equivalent torsional systems. Balancing. Dynamic Dampers. Prerequisites: ES 303 and MA 205.

ES 403—HEAT TRANSFER 3 Credits

Thermal condition. Dimensional analysis. Free and forced convection. Conduction and convection and radiation combined. Experimental establishment of conductives and emissivities. Prerequisite: ES 305.

ES 404—ELECTRICAL ENGINEERING I 3 Credits

Introduction to the fundamentals of electrical engineering. Circuit Theory and variables, voltage-current relationships, circuit analysis and network solutions, net equivalence, Thevenin and Norton equivalents; energy storage elements, the capacitor, the magnetic field and the inductor. Prerequisites: PS 202 and MA 205.

ES 405—ELECTRICAL ENGINEERING II 3 Credits

Continuation of the principles of electrical engineering, Vacuum diodes, triodes, tetrodes and pentodes, biasing, graphical analysis, RL & FC networks, sinusoidal steady—state analysis phasor relationships, transistors & sime-conductors, magnetic circuits and electromechanical energy conversion. Prerequisite: ES 404.

ES 407—ADVANCED STRENGTH OF MATERIALS 3 Credits

Unsymmetrical bending, curved beams, torsion, thick-walled cylinders, stress concentrations, thin plates and shells, and energy methods. Prerequisite: ES 301.

ES 409—SPACE MECHANICS 3 Credits

Review of mathematical and mechanical fundamentals including vectors. The two-body problem; orbits, satellite launch; cotangential transfer between circular orbits; interception and rendezvous; long range ballistic trajectories. Gyrodynamics and Gyroscopic instruments, precession and nutation, gyrocompass, stable and three-axes platform, inertial navigation. Vehicle motion. Performance and Optimization single and multi-stage rocket, flight trajectories, utilization of propellant, gravity turn. Generalized theories of Mechanics; system with constraints, generalized coordinates, D'Alembert and Hamilton's principles, LeGrane equations, Missle Dynamics Analysis. Prerequisites: ES 303 and MA 301.

ES 411—MECHANICAL BEHAVIOR OF MATERIALS 3 Credits

Engineering materials under tension, compression and shear. Impact, fatigue, creep, theories of failure, and environmental effects. Prerequisite: ES 301.

ES 450—SPECIAL TOPICS IN ENGINEERING SCIENCE 1-6 Credits (by arrangement)

Lectures, laboratories, or seminars on selected topics in engineering science. Prerequisite: Consent of instructor. May be repeated with a change of content.

DEPARTMENT OF ENGINEERING TECHNOLOGY

ET 101—ENGINEERING GRAPHICS I 2 Credits

Principles of lettering. Drawing instruments and their use. Linework code and drafting techniques. Geometrical construction. Multiview projection. Sectional and auxiliary revolutions. Dimensioning, shop processes and tolerances. Threads and fasteners.

ET 102—ENGINEERING GRAPHICS II 2 Credits

Continuation of Engineering Drawing I. Detail and assembly drawings. Comparison of the following methods of graphic representation: orthographic, axonometric, oblique and perspective projections. Introduction of descriptive geometry; the principles of orthographic projection applied to the solution of three dimensional problems. Space relationship of points, lines and planes. Curved and wrapped surfaces. Intersections and developments. Vector applications. Prerequisite: ET 101.

ET 301—AIRCRAFT DRAFTING 2 Credits

General conventions. Layout drawings, detail drawings and assembly drawings. Local and general notes. Linework and lettering quality. Dimensioning conventions. Drafting of formed sheet metal parts, welded tube structures, mechanical parts, extrusions and standard aircraft parts. 6 hours drafting. Prerequisite: ET 102.

ET 302—AIRCRAFT DETAIL DESIGN 2 Credits

Projects include structural and mechanical design and specification of shop processes. Selection of various AN and NAS standard parts. Design of riveted, bolted and welded aircraft parts. Design of control cable and swedged end-fitting, control push-pull rod with turnbuckle, and end-fittings and torque tube with hinge bearing. Selection of optimum skin thickness and stiffener spacing in wing two-cell box beam. Prerequisite: ET 301. Corequisite: AE 304.

DEPARTMENT OF FLIGHT

FC 100—PRIVATE PILOT FLIGHT 0 Credit

Airplane registration, airworthiness, equipment documents, logbooks, and inspection reports, performance, range and operations; loading and line check. Preflight operations, taxiing, normal and crosswind takeoffs and landings; climbs, level flight and descents at normal and minimum controllable speeds; stalls and stall recoveries; 720° steep turns about a point; normal landings; short and soft field takeoffs and landings; slips; emergency operation of aircraft equipment; cross-country flight planning; cross-country flying; cross-country emergencies; use of radio aids to VFR navigation and control by reference to flight instruments in preparation for the FAA private pilot flight test.

FC 101—PRIMARY FLIGHT 2 Credits

Preflight operations; starting; taxiing; takeoffs and landings; airport traffic patterns; simulated emergencies; use of radio for communications; maneuvering at minimum controllable airspeed; stalls from all normally anticipated flight attitudes; primary instruments.

FC 112—BASIC FLIGHT 2 Credits

Airplane documents; airworthiness records; airplane performance; airplane loading; precision maneuvers; basic instruments; use of radio aids to VFR navigation; short and soft-field takeoffs and landings; introduction to cross-country flying; transition to different type aircraft; introduction to advanced precision maneuvers. Prerequisite: FC 101.

FC 201—ADVANCED FLIGHT I 2 Credits

Review and continued study of the subjects in FC 112; advanced precision maneuvers including chandelles, lazy eights and eights-on-pylons and 720° power turns; gliding spirals; 180° side approaches and 360° overhead approaches; accuracy landings. Prerequisite: FC 112.

FC 202—ADVANCED FLIGHT II 2 Credits

Review and continued study of the subjects in FC 201; extensive navigation training including radio navigation utilizing VHF and LF radio navigation aids; air surveillance radar approaches; night operations including night navigation; extensive basic instrument training including radar approach procedures. Prerequisite: FC 201.

FC 200, 240 or 260—COMMERCIAL FLIGHT 0 Credits

Review of the subject in FC 100 with the following additional subjects: gliding spirals; eight-on-pylons; 720° power turns; lazy eights; and chandelles in preparation for the FAA commercial pilot flight test. Prerequisites: FC 200: FC 100 or FC 101; FC 240: 24 hours dual, 20 hours solo acceptable by ERAU; FC 260: 32 hours dual, 28 hours solo, 6 hours solo cross-country, 3.1 hours hood or instrument, 1 hour night acceptable by ERAU.

FC 301—INSTRUMENT FLIGHT I 2 Credits

Instrument flight planning; filing an instrument flight plan; aircraft performance, range and fuel requirements; required instrumentation and equipment and their proper use; advanced instrument flight techniques; recovery from unusual attitudes; emergency procedures; IFR navigation and instrument approach procedures including VOR, ILS, DME and ADF and radar approach procedures; holding procedures; missed approach procedures, compliance with ATC procedures including actual IFR cross-country flying. Prerequisite: FC 202, 200, 240 or 260 or equivalent experience.

FC 302—INSTRUMENT FLIGHT II

FC 306—MULTI-ENGINE LABORATORY 1 Credit

Multi-engine aircraft systems, loading and performance; VMC and V speeds; theories of multi-engine flight; preflight procedures; basic airwork; landings and takeoffs; cruise control and fuel management; emergency procedures-general, engine-out emergencies; night landings and takeoffs; multi-engine instrument flight including all types of approaches; emergency procedures in instrument flight including engine-out instrument approaches and missed approaches. Prerequisite: FC 301 or equivalent experience.

FC 401—ADVANCED INSTRUMENT FLIGHT 1 Credit

Advanced training for the Instrument rated Commercial Pilot including instrument flight planning; instrument cross-country flying; instrument enroute procedures and navigation; instrument approach procedures of all types; emergency procedures. Prerequisite: Commercial License and Instrument Rating. Flight Elective Aeronautical Science. Prerequisite: FC 301 or equivalent experience.

FC 404—FLIGHT INSTRUCTOR LABORATORY 1 Credit

Practice in the explanation and demonstration of all prescribed flight maneuvers and the practical in-flight application of teaching techniques and methods, in preparation for the FAA flight Instructor flight test. Prerequisite: Commercial certificate. Flight Elective Aeronautical Science.

FC 407—MULTI-ENGINE FLIGHT II 1 Credit

A review of the procedures in FC 306 in aircraft with gross weight in excess of 12,500 pounds leading to a "type rating" with instrument qualifications. Aircraft used for this training is the Douglas DC-3. Prerequisite: FC 306 or equivalent experience. Flight Elective Aeronautical Science.

FC 409—INSTRUMENT FLIGHT INSTRUCTOR LABORATORY 1 Credit

Training in the practical application of instruction techniques as applied to instrument flying. Prerequisite: Instrument rating.

DEPARTMENT OF GENERAL AVIATION

GA 100—FOUNDATIONS OF AERONAUTICS 4 Credits

An introduction to aeronautics including elementary aerodynamics, basic aircraft systems, basic medical facts for pilots, FAA regulations for private pilots, pilotage and dead reckoning, basic radio navigation, radio communications, and aviation weather.

GA 101—HISTORY OF AVIATION 3 Credits

An interpretive survey of the evolution of flight from the earliest recordings to the present. Emphasis is placed on the effect of aviation on civilization and culture.

GA 102—NAVIGATION I 3 Credits

A study of the construction and use of maps and charts; use of the Airman's Information Manual; pilotage and dead reckoning tech-

niques and procedures; use of the navigation computer; solution of practical dead reckoning navigation problems; types, uses, and operating principles of radio navigation aids and equipment. Prerequisite: GA 100.

GA 103—FLIGHT RULES AND REGULATIONS 2 Credits

A study of selected governmental rules, regulations, and procedures as they pertain to flight operations under visual flight conditions. Includes a study of aircraft accident reporting procedures. Prerequisite: GA 100.

GA 201—METEOROLOGY 3 Credits

A study of weather, how and why it forms, the problems it presents and solutions to those problems; interpretation of weather maps, sequence reports; aviator's estimation of weather development; includes study of weather from sea level to 60,000 feet, the jet stream and clear air turbulence. Prerequisite: GA 100.

GA 203—AIRCRAFT ENGINES—RECIPROCATING 3 Credits

Types of reciprocating engines; theory of engines and principles of operation; power and its measurement; BMEP; ratings; general operating instructions including starting, ground operation, cold weather operation and flight operation; turbo-charging; types, purpose and results of super-charging.

GA 209—BASIC AERODYNAMICS 3 Credits

A study of the basic principles of subsonic, transonic, and supersonic aerodynamics from the standpoint of the pilot's knowledge requirements. Included are airflow phenomena, aerodynamic forces, aircraft configuration characteristics, stability and control problems and methods, the V-g diagram, and operating strength limitations. Prerequisite: MA 100 or MA 111.

GA 210—AIRCRAFT SYSTEMS AND COMPONENTS 3 Credits

A comprehensive study of aircraft systems including: fuel systems, oil systems, hydraulic systems, electrical systems, pressurization systems and de-ice and anti-ice system. Conventional and unconventional flight control system. Types of aircraft structure and stresses on the aircraft.

GA 302—NAVIGATION II 3 Credits

A study of radio navigation techniques and procedures; use of the navigation computer in solving complex navigation problems; radio navigation charts; use of the Airman's Information Manual; and instrument flying procedures. Prerequisite: GA 102. Should be pursued concurrently with FC 301.

GA 303—GOVERNMENT AND AVIATION 3 Credits

A study of the chronological development of the basis for aviation acts and related acts, conventions, conferences, agreements, executive orders, reports, and documents; a detailed survey of selected acts and conventions, particularly those relating to the CAA, CAB, ICAO, FAA, and NTSB; and, a study of the functions and authority of these organizations.

GA 307—FLIGHT PHYSIOLOGY 2 Credits

A study of aeromedical information of significance to pilots. Includes causes, symptoms and emergency treatment of ailments common to the aerospace environment. Hypoxia, hyperventilation, decompression sickness, vision, hearing, vertigo, toxic agents, cabin pressurization, and psychological factors are studied.

GA 308—AIRCRAFT PERFORMANCE 3 Credits

A comprehensive study of the performance characteristics of modern reciprocating, turbo-prop, and jet aircraft; application of weight and balance, cruise control, performance curves, charts and operating data for obtaining highest degree of flight efficiency. Prerequisites: PS 103 and GA 209.

GA 311—AIRCRAFT ENGINES—TURBINE 3 Credits

Study of gas turbine fundamentals including thrust, factors affecting thrust, gas generator, mach number, thrust specific fuel consumption, engine station designations, diffusers and diffusion, types of gas turbine engines. Turbine engine components including turbofan engine fan sections, compressors, fuel manifolds and nozzles, thrust reversers, noise suppressors, fuel systems and fuel controls, turboprop fuel controls and propellor governors; gas turbine engine operation; engine operational characteristics.

GA 401—AIRPORT DEVELOPMENT AND OPERATION 3 Credits

An exploration of the techniques of developing a public airport in conjunction with local and state governmental agencies, federal aid and regulation, and projected aviation requirements. Management of the overall airport operation including tenant operators will be looked at. Leases, property development for non-aviation use, user taxation for airport development, planning and policies—organization and administration, maintenance, safety, and airport rules and regulations constitute representative areas of study. Two lecture hours per week and one two-hour laboratory per week. Prerequisite: GA 303.

GA 405—AVIATION LAW 3 Credits

A study of the chronological development of air law; federal and state regulatory functions; rights and liabilities of aviators and operators, rights of third parties on the ground; case history study; liens and security interest in aircraft; international conference, bilateral and multi-lateral agreements and treaties; national and international criminal statutes pertaining to aviation. Prerequisite: GA 303.

GA 408—FLIGHT SAFETY 3 Credits

A study of accident prevention and flight safety programs including various preventive measures centered upon definitive areas causing accidents. The course includes a study of accident case histories and the physiological and psychological aspects of flight safety. Prerequisite: GA 307 and GA 209 and a minimum of 200 hours of pilot experience.

GA 410—AIR CARRIER OPERATIONS 3 Credits

A study of organization, management, and over-all operating procedures of U. S. Air Carriers in intra-state, inter-state, overseas, and foreign operations; the influence of economic and technical regulation of air carriers; a study of IATA including its relationship with ICAO, ATA, and labor unions; national policy and the airline industry. Prerequisite: GA 303.

GA 420—AIR CARGO 3 Credits

A study of the changing technology and procedures in the air freight industry. Scope includes the relationship to airframes, terminals, marketing, economic regulation, and operating procedures. Air taxi, containerization, mail and competitive influences are assessed. Prerequisite: GA 303.

GA 450—SPECIAL TOPICS IN GENERAL AVIATION 1-4 Credits

Lectures, seminars, laboratories, independent studies, or combinations on selected topics in general aviation. Prerequisites: Consent of instructor and approval of Division Chairman. May be repeated with a change in content.

DEPARTMENT OF HUMANITIES

HU 001—PREPARATORY ENGLISH 0 Credits

Designed to improve competence in reading, writing, and speaking the English language. Grammar and mechanics, sentence and paragraph construction, vocabulary building.

HU 002—PREPARATORY READING 0 Credits

Designed to aid students to increase comprehension and speed in reading.

HU 100—ENGLISH COMPOSITION AND LITERATURE I 3 Credits

Designed to aid in the further development of intelligent and critical reading and of correct and effective writing. Introduction to literary genres.

HU 101—ENGLISH COMPOSITION AND LITERATURE II 3 Credits

A continuation of HU 100. The library paper.

HU 110—ELEMENTARY SPANISH I 3 Credits

Basic grammar and reading. Introduction to conversation. Not open to students with two or more years of high school Spanish or equivalent.

HU 111—ELEMENTARY SPANISH II 3 Credits

A continuation of HU 110.

HU 200—WORLD LITERATURE 3 Credits

A survey of major works and literary trends in classical, continental, and oriental literatures. Prerequisites: HU 100 and 101.

HU 202—ORAL COMMUNICATION OF IDEAS 2 Credits

Designed to enable the student to become a more effective speaker by applying the principles of effective communication to actual communication situations.

HU 204—TECHNICAL REPORT WRITING 2 Credits

The preparation of formal and informal technical reports, abstracts, resumes, and business correspondence. Emphasis will be placed on the long technical paper. Prerequisites: HU 100 and 101, with the exception of the associate of technology curriculum, in which HU 100 is the only prerequisite.

HU 208—ART APPRECIATION 2 Credits

A survey of painting, architecture, and sculpture, covering the major periods and basic criteria for aesthetic understanding.

HU 209—MUSIC APPRECIATION 2 Credits

Introduction to the history and appreciation of music that has substantially influenced our culture. Lecture and listening hours.

HU 210—ADVANCED SPANISH CONVERSATION AND READING 3 Credits

Continuation of HU 110 and 111 with emphasis on development of high fluency in conversation and reading.

HU 212—INTRODUCTION TO LOGIC 3 Credits

Principles of valid thinking; the nature of inductive and deductive inferences and their applications.

HU 307—MODERN LITERATURE 3 Credits
(formerly Contemporary Literature)

The mainstreams of literature of this century. The specific content —genres and major writers to be studied—will vary from trimester to trimester. Prerequisites: HU 200.

HU 308—AMERICAN LITERATURE 3 Credits

A survey of major works and literary trends in American literature. Prerequisite: HU 200.

HU 310—ENGLISH LITERATURE 3 Credits

A survey of major works and literary trends in English literature. Prerequisite: HU 200.

HU 402—RELIGIONS OF MANKIND 3 Credits

A survey of the major religions of the world, including Judiasm, Christianity, Islam, Hinduism, Buddhism, and Confucianism, along with a brief examination of the development of religion as a vital aspect of man's experience in history.

HU 404—INTRODUCTION TO PHILOSOPHY 3 Credits

An integrated study of man and the concepts of his culture, including views about himself, society, religion, science, the nature of knowledge, and some of the major philosophical systems such as idealism, materialism, and existentialism.

HU 450—SPECIAL TOPICS IN HUMANITIES 1-6 Credits

Independent study, seminars, and other specially arranged courses not regularly scheduled.

DEPARTMENT OF MATHEMATICS

MA 001—PREPARATORY MATHEMATICS 0 Credits

Review of Algebra and Geometry; emphasis on effective study of mathematics; objective of course is to prepare the student who is deficient in mathematics for successful pursuit of the study of required mathematics courses in the degree programs ultimately chosen by the student.

MA 100—BASIC COLLEGE MATHEMATICS 4 Credits

Fundamental arithmetic and algebraic operations. Equations. Functions and Graphs. Geometry. Statistics. Prerequisite: MA 001 or satisfactory score on placement test.

MA 102—COLLEGE ALGEBRA 3 Credits

Sets, inequalities, functions, systems of equations, determinants, permutations and combinations, quadratic equations and partial fractions. Logarithms. Prerequisite: MA 001 or satisfactory score on placement tests.

MA 103—TRIGONOMETRY 2 Credits

Solution of right triangles, reduction formulas, functions of several angles and multiple angles, trigonometric equations, inverse functions and complex numbers. To be taken concurrently with MA 102.

MA 110—INTRODUCTORY COLLEGE MATHEMATICS 3 Credits

Basic laws of algebraic operations, fractions, exponents and radicals, the number system, equations, algebraic functions and graphs.

MA 111—COLLEGE MATHEMATICS FOR AVIATION 3 Credits

Continuation of MA 110 to include quadralic equations, system of equations, trigonometric functions, and applications to navigation, aircraft performance and aircraft stability and control.

MA 201—CALCULUS AND ANALYTIC GEOMETRY I 5 Credits

Graphs and equations of loci, lines, and conics. Limits. Differentiation of alebraic, trigonometric and exponential functions. Applications of first and second derivatives. Prerequisites: MA 102 and MA 103.

MA 202—CALCULUS AND ANALYTIC GEOMETRY II 5 Credits

Meaning and use of integration in problems of areas, volumes, cen-

troids, moments. Polar coordinates. Solid analytic geometry. Partial derivatives. Multiple integrals Series. Prerequisite: MA 201

MA 205—DIFFERENTIAL EQUATIONS 3 Credits

Treatment of ordinary differential equations including principal types of first and second order equations, simultaneous equations, and linear equations, with constant coefficients. Applications to physics and mechanics. The LaPlace Transform. Prerequisite: MA 202.

MA 209—INTRODUCTION TO COMPUTER PROGAMMING 3 Credits

Basic concepts of algorithms, computers, and programs. Numbering systems. Floating-point number, integer number, and character representation. Computing solution of numerical and non-numerical problems. Program documentation. Two hours lecture, two hours lab. Laboratory fee $35.00 (Not open to students who satisfactorily completed MS 309 or MA 309.)

MA 211—INTRODUCTION TO STATISTICS 3 Credits

Collection and Presentation of data; measures of central tendency; dispersions; regression; time series analysis; forecasting. (not open to aviation management, math and engineering students.) Prerequisite: MA 111.

MA 212—BUSINESS STATISTICS (formerly MS 312) 3 Credits

Tabulation and presentation of business data; measure and central tendency and dispersion; elementary probability and the normal curve of error; reliability of arithmetic mean. Prerequisites: MA 100 and MS 100.

MA 213—DECISION MATHEMATICS 3 Credits

The mathematical concepts which underlie the work being done in mathematical model building and problem solving. Included are mathematical areas which are basic to operation research and econometrics. Prerequisite: MA 212.

MA 300—CALCULUS FOR MANAGEMENT 3 Credits

Limits, differentiation and integration of algebraic and exponential functions. Applications, with emphasis on use as an aid to decision making. Not open to engineers. Prerequisite: MA 100.

MA 301—ADVANCED ENGINEERING MATHEMATICS I 3 Credits

Vector algebra, differential and integral vector calculus, partial

derivatives, line and surface integrals, matrices and cartesian tensors. Prerequisite: MA 205.

MA 302—ADVANCED ENGINEERING MATHEMATICS II — 3 Credits

Series solutions of ordinary differential equations, regular singular point theory, Bessel functions, legendre polynomials, sturm lioville bounary value problems and orthogonal function expansions, partial differential equations and applications. Prerequisite: MA 205.

MA 309—COMPUTER PROGRAMMING FOR ENGINEERING — 3 Credits

Solution of engineering problems using FORTRAN IV. Manipulation of arrays in primary storage. Subroutines and function subprograms. Partitioning of programs. Scientific subroutines. Analysis, programming, and documentation of engineering problems. Two hours lecture, two hours lab. Laboratory fee $35.00. Prerequisites: MA 201 and MA 209.

MA 314—INTRODUCTION TO OPERATIONS RESEARCH — 3 Credits

Probability theory, statistical inference and decision theory. Linear programming, network analysis, game theory and queueing theory. Prerequisite: MA 212.

MA 319—COMPUTER PROGRAMMING FOR MANAGEMENT — 3 Credits

Solution of management problems utilizing computers. FORTRAN IV programming for business analysis and reporting. Input and output of numerical and non-numerical data arrays. Decision tables. Random and sequential disk filing. Analysis, programming, and documentation of management applications. Two hours lecture, two hours lab. Laboratory fee $35.00. Prerequisites: MA 318 or MS 309.

MA 403—COMPLEX VARIABLES — 3 Credits

Complex numbers. Analytic functions. Integrals. Derivatives. Powers series. Conformal mapping. Special functions. Applications. Prerequisite: MA 202.

MA 412—MATHEMATICAL STATISTICS — 3 Credits

An introduction to the theory of probability, sample space, laws of probabilities, random variables, and their probability distributions. Expectations of random variables and functions of random variables, applications. Prerequisite: MA 201 or MA 300.

MA 430—INTRODUCTION TO LINEAR ALGEBRA 3 Credits

Introduction to matrices, introduction to vectors, mathematical systems, special matrices, determinants, vector spaces, linear transformations, convex sets, and linear programming. Prerequisite: MA 201 or MA 300.

MA 431—LINEAR PROGRAMMING 3 Credits

Characteristics of linear programming problems, properties of linear programming solutions, the simplex method with variations, optimality analysis, the dual problem, the transportation problem. Prerequisite: MA 430.

MA 450—SPECIAL TOPICS IN MATHEMATICS 1 to 6 Credits

Lectures or seminars covering specially selected topics in mathematics. May be repeated with change of content. Prerequisite: Consent of instructor.

DEPARTMENT OF MANAGEMENT

MS 100—INTRODUCTORY MANAGEMENT 3 Credits
(formerly EC 100)

An overview of business management. Stress placed on management, its nature, environment and opportunities. Organization, marketing, and operational factors considered.

MS 110—ACCOUNTING I (formerly MS 210) 3 Credits

An introduction to accounting: double entry, income statement, balance sheet, interpretation of accounts; partnerships and corporations. Two lectures and two hours of laboratory per week.

MS 211—BUSINESS LAW 3 Credits

A survey of the legal aspects of business transactions. Contracts, agency, bailments, negotiable instruments.

MS 212—MANAGEMENT ACCOUNTING 3 Credits
(formerly MS 310)

Discussion of budgetary control, non-manufacturing costs, uniform cost accounting systems: analysis and control through cost accounting; other managerial reports. Two lectures and two hours of laboratory per week. Prerequisite: MS 110.

MS 213—PRINCIPLES OF MANAGEMENT 3 Credits
(formerly MS 301)

The fundamental functions of management: planning, organiza-

tion, staffing, directing and controlling are studied. Principles governing the proper discharge of these functions are developed. Prerequisites: EC 110, MS 100, MS 110.

MS 311—MARKETING 3 Credits

Marketing theory; marketing management; sales management; market research. Public and customer relations; advertising; distribution. Government agencies as customers. Prerequisite: MS 213.

MS 313—PERSONNEL MANAGEMENT 3 Credits

An introduction to the methods and viewpoints of modern personnel administration. Case studies are selected to develop logical thinking in actual situations. Prerequisite: MS 100.

MS 315—FINANCE (formerly MS 410) 3 Credits

The finance function, financial analysis and control, financial planning, short-term and intermediate term financing, long-term financing and financial strategies. Prerequisites: MA 212, MS 212, MS 213.

MS 316—PSYCHOLOGY OF MANAGEMENT 3 Credits
(formerly MS 413)

A basic course about human problems within the supervisory and management ranks. An introduction to individuals, pairs, and different-sized groups in organizations. Prerequisites: SS 205 and MS 313.

MS 318—BUSINESS DATA PROCESSING 3 Credits
(with MA 209 replaces former MS 309)

Fundamentals and history of data processing. The data processing cycle. Punched-card data processing equipment. Design of punched-card data processing systems. Electronic data processing systems. Computer languages. Data processing management. Prerequisites: MS 110, MA 209. (Not open to students who satisfactorily completed MS 309.)

MS 319—MANAGEMENT INFORMATION SYSTEMS 3 Credits
(formerly MS 412)

Management information acquisition and presentation, information economics and information management, information systems analysis, and operations analysis tools: accounting systems, critical-path information systems, inventory information systems, marketing information systems; linear programming, simulation. Prerequisites: MA 213 and MS 318.

MS 330—TRAFFIC MANAGEMENT 3 Credits

An intensive study of effective traffic management to show how it

continuously serves as an indispensable element in the successful and efficient operation of a business enterprise. Oriented to the total approach and all modes of transportation. Considered in its relationship to the areas of warehousing, inventory control, material handling, and packaging. Managerial transportation responsibilities and topics will receive major treatment. Prerequisites: EC 105, MS311.

MS 340—PHYSICAL DISTRIBUTION MANAGEMENT 3 Credits

An integrated study of all functional areas of physical distribution. From the managerial standpoint, establishes the scope and character of physical distribution. Devoted to the primary activity centers—transportation, inventory, warehousing, unitization, and communications. Their relationships to efficient product movement within a logistical system stressed. Prerequisite: EC 410.

MS 401—MANAGEMENT PLANNING AND CONTROL 3 Credits

The requirements for short term and long range planning are investigated. New product planning is discussed. The importance of the control functions will be emphasized. Prerequisites: MS 311, MS 315, MS 316.

MS 420—INDUSTRIAL MANAGEMENT 3 Credits

An intensive study of management functions and organizations peculiar to industrial organizations. The interfaces and responsibilities of project, functional, and administrative functions will be investigated. Particular attention will be paid to industrial engineering, quality assurance, and manufacturing management functions. Prerequisites: MS 311, MS 315, MS 316.

MS 421—SMALL BUSINESS MANAGEMENT 3 Credits
(formerly MS 320)

An introduction to the management of a small business; financing, site location, marketing, records, advertising, personnel, government agencies, etc. Prerequisites: MS 401, MS 420.

MS 430—MANAGEMENT APPLICATIONS 3 Credits

Case problems in determining business policy, instituting policy and appraising the results. The viewpoint is that of top and middle management. Prerequisites: MS 401, MS 420.

MS 450—SPECIAL TOPICS IN MANAGEMENT 1-4 Credits

Lectures, seminars, laboratories, independent studies, or combinations on selected topics in management. Prerequisites: consent of instructor and approval of Division Chairman. May be repeated with a change of content.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS
(Stetson University)

MY 101 & 102—BASIC MILITARY SCIENCE 4 Credits
MY 201 & 202—BASIC MILITARY SCIENCE 4 Credits
MY 301 & 302—ADVANCED MILITARY SCIENCE 4 Credits

Prerequisite: Admission by selection and completion of Basic Course or active military service.

MY 401 & 402—ADVANCED MILITARY SCIENCE 4 Credits

Prerequisite: MY 302.

DEPARTMENT OF PHYSICAL EDUCATION

PE 222—SCIENCE OF EXERCISE AND ATHLETICS 2 Credits

Aerobics and other exercise systems, functional human anatomy, exercise physiology, injury prevention and care, basic kinesiology, fundamentals of motor learning, fatigue, stress, nutrition and related topics. Development of a training philosophy and a life-long dynamic health maintenance program.

DEPARTMENT OF PHYSICAL SCIENCES

PS 101—PHYSICAL SCIENCE I (Chemistry) 3 Credits

Elemental Chemical Theory with considerable application to the Aeronautical Science and Aviation Management student. Covers basic atomic theory, elements, compounds and mixtures, calculation of weight and weight volume relationships, basic descriptive chemistry of the elements and their important compounds. Three lectures and one one-hour laboratory per week

PS 102—PHYSICAL SCIENCE II (Earth Science) 3 Credits

Covers the solar system in general, the earth and the moon in particular. The nature of changes in the earth crust, its hydrosphere and atmosphere are covered in considerable detail. Three lectures and one one-hour laboratory per week.

PC 103—PHYSICAL SCIENCE III (Physics) 3 Credits

Elementary physical theory with considerable application to the Aeronautical Science and Aviation Management students. It will cover fundamental mechanics and machines, properties of solids, liquids and gasses, electricity, heat and optics. Main stress will be placed on applications and mathematical solutions of basic relationships. MA 100 or MA 111 required before or simultaneously with the course.

PS 105—CHEMISTRY I WITH LABORATORY 4 Credits

Fundamental principles of chemistry, basic atomic theory, valence, the chemical bond, oxidation number, symbols, formulas, equations and nomenclature. Chemical calculations, rates of reaction. Acids, bases and salt. Oxygen and hydrogen. The periodic system. Conservation of mass and energy $10.00 lab fee.

PS 106—CHEMISTRY II WITH LABORATORY 4 Credits

Equilibruim and kinetics. Metals and non-metals. The halogens, sulfur, nitrogen, and their compounds. Iron, copper and aluminum, nuclear chemistry. Prerequisite: PS 105. $10.00 lab fee.

PS 201—PHYSICS I, MECHANICS AND HEAT WITH LABORATORY 5 Credits

Vector and scalar quantities, Newton's laws of motion and gravitation. Friction. Work. Energy. Power. Torque and rotational motion, Momentum. Curvilinear Motion. Elastic properties of matter. Fluids at rest and in motion. Properties of gases. Heat. 4 lectures per week and one 3-hour laboratory per week. Corequisite: PS 105. $10.00 lab fee.

PS 202—PHYSICS II, SOUND, ELECTRICITY AND LIGHT WITH LABORATORY 5 Credits

Wave motion, sound waves, acoustics. Fundamental laws of electricity and magnetism. Electrostatic and electromagnetic field theory. Induced electromagnetic forces. Power. Capacitance. Electrical instruments. Nature of light, index of refraction, refraction by lenses, reflection from mirrors, diffraction, and interference. 3 lectures per week and one 3-hour laboratory per week. Prerequisite: PS 201. $10.00 lab fee.

PS 303—MODERN PHYSICS 3 Credits

A survey course in modern concepts in physics. The nucleus and atomic structure. Fundamentals of wave mechanics. Basic relativity. Mossbauer effect. Parity and fundamental particles. High energy physics, cryogencis and superconductivity. Fundamentals of electronics. Microwave Optics. Stimulated emmission, lasers.

PS 307—APPLIED PHYSICIAL CHEMISTRY 3 Credits

Chemical equilibria, kinetics, phase rule, chemical thermodynamics, kinetic theory of gases, thermochemistry, high temperature gas reactions, photochemistry, basic statistical mechanics.

PS 450—SPECIAL TOPICS 3 Credits

Topics within the fields of the physical sciences impinging on aeronautical engineering development or practices and which are of current or anticipated interest will be discussed on a seminar basis.

DEPARTMENTS OF AIRFRAME AND POWERPLANTS

SL 010—GENERAL AERONUATICS

General aptitude tests. Introduction to aeronautics. Aircraft drawing. Mathematics and physics review (high school level). Federal Aviation Administration Regulations, maintenance forms, records, manuals and other publications. Basic theory of flight and engine operation. Introduction to weight and balance computations. General indoctrination on technician requirements in industry, basic management knowledge, salesmanship, personality and general supervisory capabilities. Safety in the field of technology. Ethics and legal responsibilities General indoctrination on the Aviation Maintenance Management and Aviation Maintenance Technology curriculums.

SL 011—BASIC AIRCRAFT SCIENCE

Basic training in the responsibility of the technician. Reading and understanding Federal Air Regulations. Introduction to aircraft, its major components, aircraft terms and theory of flight; woodwork, dope and fabric, requirements relative to quality of material and method of repairs; gas welding. Introduction to sheet metal work.

SL 012—BASIC POWERPLANT SCIENCE

Theory of engines and principles of operation. Four-stroke cycle principle. Cam rings, pistons, piston rings, cylinders, lubrication of radial and opposed engines. Float carburetors, pressure carburetors, direct injection fuel systems and introduction to propellers.

SL 013—AIRCRAFT SYSTEMS

Methods of repair or replacement of aircraft components. Functions of pumps, pressure regulators, selector valves, actuators, relief valves, bypass valves, power brakes, steering devices and anti-skid controls. Fuel systems and fuel management. Cabin pressurization, heating, air conditioning, wing de-icing, oxygen, anti-icing, fire detection, and flight instrument systems.

SL 014—ELECTRICAL LABORATORY

Fundamentals of aircraft electricity, both direct and alternating current. Use of Ohm's Law and impedance formulas. Theory of capacitance and inductance as applied to aircraft. Theory and maintenance of AC and DC motors, generators, alternators, and motor controls. Installation of batteries, airframe wiring, conduit, junction boxes, relays, circuit protectors, switches, radios and as-

sociated components in accordance with current FAA regulations. Trouble shooting, aircraft electrical components and associated systems.

SL 015—ENGINE AND ACCESSORY OVERHAUL

The complete disassembly and overhaul of engines and accessories. Repair and inspection procedure. Powerplant operation, trouble shooting and test-run-in procedures. The use of technical publications and details of record processes.

SL 016—JET PROPULSION LABORATORY

Theory of jet propulsion, principles of jet engine operation, the study of thrust. Each student is trained in disassembly, inspection, reassembly, run-up, test, and trouble shooting of "live" jet engines. The type of engines studied are turbojet, turbofan, and turboprop. All systems related to jet engines are also studied. This 225 hours of jet training may be taken separately if desired.

SL 017—AIRCRAFT STRUCTURES

Training and knowledge needed to overhaul and maintain modern aircraft. Basic skills in the use of hand and power operated metal cutting tools. Aluminum and aluminum alloy fabrication. Heat treating, cold work and riveting. Repair and overhaul of live aircraft. New aircraft structures and manufacturing techniques.

SL 018—WEIGHT AND BALANCE PROPELLERS AND COURSE REVIEW

Weight and balance. Inspection procedures. Theory, design and function of propellers. Final school examinations. Placement interviews. Final preparation for Federal Aviation Administration written and practical examinations.

FE 010—FLIGHT ENGINEER DEPARTMENT

Federal Aviation Regulations pertaining to Flight Engineer Rating (Turbojet). Elemetary aerodynamics. Airframe familiarization (systems). Basic meteorology with respect to engine operation. Center of gravity computations. Emergency operations.

DEPARTMENT OF SOCIAL SCIENCES

SS 101—WORLD HISTORY 3 Credits

Designed primarily as a survey of the development and evolution of Western civilization from 1660 to the present. Emphasis is placed on contemporary civilization and culture.

SS 201—AMERICAN HISTORY 3 Credits

(1865 to the present). Reconstruction; the age of big business; the U. S. as a world power; World Wars I and II. The great depression and its aftermath. Studied in an interpretative survey.

SS 203—INTRODUCTION TO SOCIOLOGY 3 Credits

Integrated survey of the fundamental concepts of culture, forms of collective behavior, community and social organization, social interaction, and social change. The social effects of aviation and the impact of science on the social order living in an air-age will also be investigated.

SS 205—INTRODUCTION TO PSYCHOLOGY 3 Credits

Designed to help the student become aware of the many factors influencing human behavior and social interaction, and to better understand the context of emotional disturbances.

SS 206—PERSONALITY DEVELOPMENT 3 Credits

A course to better acquaint the individual with the environmental factors that affect personality development, emotional stability, and interpersonal relationship in our society. Through a better understanding of these factors, the individual will have discovered new modes of adjustment, both in his own life, and in his family and occupational setting.

SS 301—AMERICAN NATIONAL GOVERNMENT 3 Credits

Basic issues of American democracy, constitutional principles and the executive, legislative, and judicial branches of government.

SS 407—CURRENT HISTORY 3 Credits

A course in selected Political-Social-Economic issues of national and international importance. Extensive use of journals, magazines, and newspapers to supplement lectures and discussions.

SS 408—AMERICAN FOREIGN POLICY 3 Credits

A survey of the origins of the basic elements of American Foreign Policy. A summary review of the major issues in American Diplomatic History since 1860.

SS 450—SPECIAL TOPICS IN THE SOCIAL SCIENCES 1-6 Credits

Independent study, seminars, travel seminars, and other specially arranged courses not regularly scheduled in the areas of history, sociology, psychology, and human culture in general.

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The Board of Trustees is composed of members of national, state and local prominence devoted to the education of young people in aviation skills. These members serve without remuneration and give freely of their time in establishing broad policy and providing guidance to the administration in the furtherance of the educational goals and objectives of the University.

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Letter designation for pilot certificates are as follows:

A	Airplane
SE	Single Engine
ME	Multi-Engine
SME	Single and Multi-engine
L	Land Plane
I	Instrument
CFI	Certified Flight Instructor
S	Seaplane
BGI	Basic Ground Instructor
AGI	Advanced Ground Instructor
IGI	Instrument Ground Instructor

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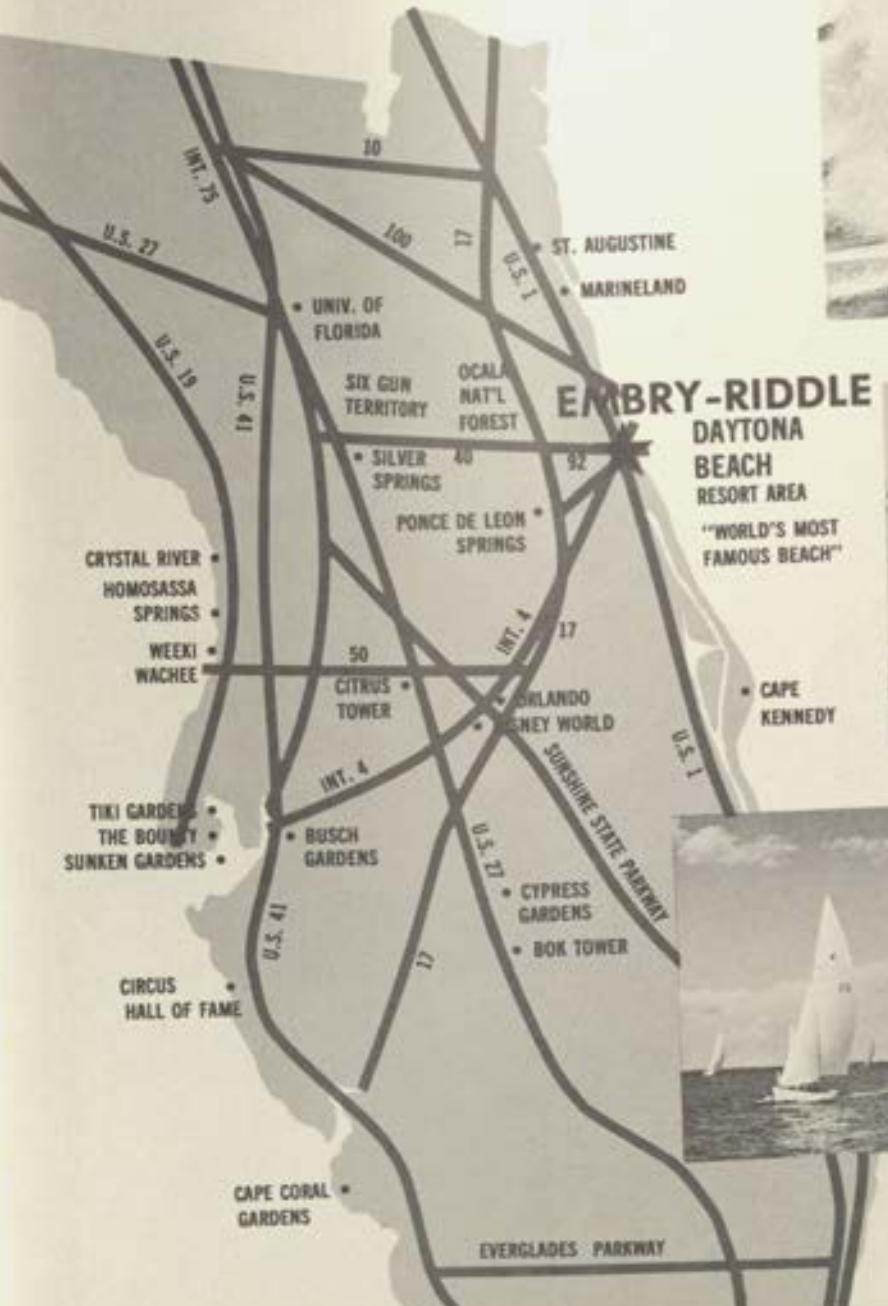

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This $1.4 million complex is the next to be built (1970-71) on Embry-Riddle's new campus pictured on the front cover. It will house Simulator Laboratory, Technical Library, Classrooms, Flight Planning Rooms, and Faculty Offices. From this living memorial to Mr. Wilson will come the well trained and educated aviation leaders of tomorrow. Their professional competence will assist them in pursuing their personal goals as well as helping America remain the leader in World Aviation. The entire campus is planned for completion in the middle or late seventies at an estimated cost of $25,000,000. 6,000 dedicated students of aviation will then be enrolled in the World Center of Aviation.

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