

Bachelor of Science in Aviation

Option in Maintenance Management

Updated: July 24, 2014

Advising packet:

List of courses

Course descriptions

Academic Planner

Major form

GE Worksheet

Aviation and Technology Department

College of Engineering
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<http://www.sjsu.edu/avtech/>

Program Overview for the B.S. Aviation with option in Maintenance Management

(program appropriate for students with career goals in the management of aviation maintenance and support systems with both commercial and private flight operators.)

Required Courses in Aviation

Lower Division Courses

up to 33 units

Avia 078: Introduction to Aviation Management

Include up to 30 units of transferable credit from your accredited 2-year A&P program.

Upper Division Courses

39 Units

Avia 128: Aviation Safety and Security
Avia 141: Human Factors in the Aviation Environment (Biol 141)
Avia 173: Aviation Law
Avia 176: Airline Operations and Management
Avia 177: General Aviation Operations and Management
Avia 190: Senior Capstone Seminar
Bus 140: Fundamentals of Operations Management
Bus 141: Materials Management
Bus 142: Total Quality Management
Bus 146: Project Management
Bus 186: Professional and Business Ethics (Phil 186)
Tech 198: Technology and Civilization
Engr 100W: Engineering Reports

Support Courses

26-27 Units

Bus 20 or 20N (3)
Bus 90 (3)
Chem 30A and Chem 30B (6) * or Chem 1A (5)
Phys 2A and Phys 2B (8) ** or Phys 50 and Phys 51 (8)
Math 71 (3) * or Math 30P (5) or Math 30 (3)**
Econ 1B (4)

Minor in Business Management [optional]

A minor in Business is popular and very valuable for Aviation majors. Students electing to complete the Business minor should meet with their Aviation advisor to assure correct course selections and paperwork. No additional courses are usually required for this minor.

[At SJSU, courses numbered 100 or higher are upper division and may not be taken at a two year institution. Courses numbered 1 to 99 are lower division and such courses may be taken at a community college.]

Course Descriptions for the B.S. Aviation with option in Maintenance Management

Lower Division

AVIA 078: Introduction to Aviation Management

Description: History of aviation management. Safety, security, community relations, aviation unions, and private and governmental relationships. National Airspace System. Future Airspace System. International airspace systems.

You will include in your program up to 30 units of transferable coursework from your A and P maintenance program.

Lower Division Aviation Courses total up to 33 units

Upper Division

AVIA 128: Aviation Safety and Security

Description: Safety in aviation design, operation, and maintenance; hazardous materials; airport environment issues; security regulations for aviation. Prerequisite: AVIA 2.

AVIA 141: Human Factors in the Aviation Environment (Biol 141)

Description: Effects of time zone changes, sleep disruption, drugs on pilot performance. Role of FAA inspectors, physicians, cabin attendants, unions. Cockpit crew coordination; pilot psychology; aviation safety and accident investigation. Experimental avionics. Prerequisite: Upper division standing. Notes: Not an elective in most department majors.

AVIA 173: Aviation Law

Description: Law and legal issues in aviation from both a national and international perspective. Rights and responsibilities of individuals, organizations, and the aviation community. Regulations and liability pertaining to the design, manufacture, operation and maintenance of aircraft. Prerequisite: AVIA 78.

AVIA 176: Airline Operations and Management

Description: Aspects of managing air transportation companies. Integration of technical, environmental, market and regulatory considerations in the decision-making process in airline management. Future planning techniques. Prerequisite: AVIA 78, BUS 140.

AVIA 177: General Aviation Operations and Management

Description: Aspects of managing general aviation companies, such as the structure of the general aviation industry, supply and demand of products, and technical and regulatory constraints. Prerequisite: AVIA 78, BUS 140.

AVIA 190: Senior Capstone Seminar

Description: Current industry analysis and career development; leadership skills for an aviation professional. Aviation standard procedures. Ethical principles for Aviation. Student projects related to Aviation major. Prerequisite: Graduating senior, major form completed.

Upper Division Aviation Courses total 54 units

Business courses for the major	24
Other courses for the major outside of Aviation	12
Support Courses in Math, Chemistry, Physics, Economics, and Business	26-27
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Units for the degree	132

Major Academic Plan

Major: Aviation with an Option in Aviation Maintenance Management

Degree: BS

This sheet is available electronically on the "All Major Forms" page of the AvTech website

First Year

implementation date: August 25, 2014

last updated July 3, 2014

Meet with your advisor each semester.

Prior to attending SISU: Community College Maintenance Program

Complete an FAA approved FAR part 147 AMT program for 30 units of university credit

Fall Semester 20__		
Course	Prerequisites	Area Units
GE Area E	----	GE E 3
Math 071	Math 008 or Equivalent	GE B4 3
AMS 1A*	----	GE C1, D2 6
Econ 1B*	----	GE D1 4
		Semester Total: 16

Spring Semester 20__		
Course	Prerequisites	Area Units
Engl 001A	----	GE A2 3
AMS 1B*	AMS 1A	GE C2, D3 6
Phys 002A *	Math 008 or Equivalent	GE B3 4
		Semester Total: 13

Second Year

Fall Semester 20__		
Course	Prerequisites	Area Units
GE Area A1 course *	----	GE A1 3
Avia 141	----	Major/GE B2 3
Phys 002B *	Phys 2A	GE 4
Avia 078	----	Major 3
ISE 155	----	Major 3
		Semester Total: 16

Spring Semester 20__		
Course	Prerequisites	Area Units
Avia 128	Avia 2	Major 3
Avia 173	Avia 78	Major 3
Chem 001A **	See Catalog	GE B1 5
Bus 020 or 020N		Minor 3
PASS THE WST & File for graduation		Semester Total: 14

Third Year

Fall Semester 20__		
Course	Prerequisites	Area Units
Bus 141	Major	3
Bus 090	Math 71 Minor	3
Engr 100W **	ENGL 1B, Pass WST, Upper Division	GE R, Z 3
GE Area A3 course *	----	GE A3 3
Tech 145	----	Major 3
		Semester Total: 15

Spring Semester 20__		
Course	Prerequisites	Area Units
Avia 190	Graduating Senior	Major 3
Bus 186**	Upper Div Standing, Pass WST; Co-req: 100W	GE S 3
Tech 198 **	100W, Pass WST, Upper Div Standing	GE V 3
Avia 176	Avia 78, [Bus 140]-see advisor	Major 3
		Semester Total: 12

NOTES

* course meets a core GE requirement

Minor in Business

Most students will elect to complete two additional courses to obtain a minor

** course meets a SUSU Studies (UDGE) requirement
Notes to students (how to make this your personal academic planner):

- font format: Format > Cells > Font > Strikethrough)
- Move all courses you HAVE taken to past semesters
- Move all courses NOT TAKEN to current or future semesters
- Check each course for prereqs/take them FIRST
- Make sure you take your Math, Phys, Chem, BUS 90, and Econ classes as early in your program as possible.
- When you modify this academic planner for your personal academic schedule, **do not move** any class from the Fall to the Spring semester **OR** vice versa, without meeting with your program advisor first. Some courses are offered **ONLY** in the Fall semester and some only in the Spring semester.
- Change "Year One" / "Year Two" / "Year Three" etc. to reflect the actual semester. Ex.: Fall 14'

in Business. Please see your advisor and the Business Student Advising Center (BSAC) in BBC008.

Note to Aviation students from earlier Aviation programs:

Students in the BS Aviation admitted prior to Fall 2014 may elect to migrate to thenew Aviation programs. To do this you must make the request with your advisor and establish an approved, signed Academic Planner. Any exceptions or changes to the published new program must be included on the Planner. Any exceptions or changes to the published new program must be included on the Planner and signed and dated by your Academic Advisor. The planner must be filed in the Department office with your application for graduation.

SAN JOSE STATE UNIVERSITY - DEPARTMENT OF AVIATION AND TECHNOLOGY

Bachelor of Science in AVIATION

MAJOR FORM FOR B.S. AVIATION

Option: Maintenance Management

Proposed Date of Graduation: _____

NAME: _____

Student ID: _____

Maximum Number of Units for the Degree: 132

Catalog: _____

REQUIRED COURSES FOR THE MAJOR

ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE	ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE
	Avia 078	Introduction to Aviation Management	3						
	Avia 128	Aviation Safety and Security	3						
	Avia 141	Human Factors in the Aviation Environment	3						
	Avia 173	Aviation Law	3						
	Avia 190	Senior Capstone Seminar	3			Bus 140	Fundamentals of Operations	3	
	Avia 176	Airlines Operations and Management	3			Bus 141	Materials Management	3	
	Avia 177	General Aviation Operations and Management	3			Bus 142	Total Quality Management	3	
	ISE 155	Supply Chain Engineering	3			Bus 146	Project Management	3	
	Tech 145	Lean Manufacturing	3			Bus 186	Professional and Business Ethics	3	
up to 30 units of CC A&P courses listed below						Tech 198	Technology and Civilization	3	
						Engr 100W	Engineering Reports	3	

APPROVED UPPER DIVISION ELECTIVES FOR THE MAJOR

ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE	ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE
	Avia	Aviation-Elective	3						
	Avia	Aviation-Elective	3						
	Avia	Aviation-Elective	3						

PREPARATION FOR THE MAJOR

ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE	ALT. INST.	COURSE NUMBER.	COURSE TITLE	UNITS	GRADE
	Econ 1B	Principles of Economics: Microeconomics	3			Math 71	Calculus for Business and Aviation	3	
OR	Bus 20N	Survey of Accounting	3			Phys 2A	Fundamentals of Physics	4	
	Bus 20	Financial Accounting	3			Phys 2B	Fundamentals of Physics	4	
	Bus 90	Business Statistics	3			Chem 1A	General Chemistry	5	

Support Courses:

Chem 1A may be used to substitute for Chem 30A and Chem 30B
 Math 30 may be used to substitute for Math 71
 Phys 50 and Phys 51 may be used to substitute for Phys 2A and Phys 2B

The student listed above will have completed all the departmental requirements for the Bachelor of Science degree at

- (a) Successful completion of the above work.
- (b) An audit of the student's transcript of record to verify that all appropriate data have been entered accurately.
- (c) A minimum 2.0 GPA has been achieved in all AVIATION COURSES.
- (d) A grade of C- or better is required for all courses used to satisfy any major, minor, or preparation courses.

SIGNATURE OF MAJOR ADVISOR

SIGNATURE OF Chair
Department of Aviation and Technology

DATE SUBMITTED:

DATE SUBMITTED:

Aviation General Education Worksheet



Last Name (print) _____ First _____

Student ID # _____

Catalog Year _____ Major _____

Minor _____

Core General Education	Course	Units	Where Taken	Grade
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Categories marked with * require a grade of C or better

A. Basic skills (9 units) Complete one course in each area.

A1	Oral Communication *			
A2	Written Communication 1A*			
A3	Critical Thinking *			

B. Science & Math (9 units)

B1	Physical Science	----Pending Completion of Aviation Degree----		
B2	Life Science	----Pending Completion of Aviation Degree----		
B3	Laboratory Science	----Pending Completion of Aviation Degree----		
B4	Mathematical Concepts *	----Pending Completion of Aviation Degree----		

C. Humanities & Arts (9 units) Complete one course in each area.

C1	Arts	AMS 1A-B		
C2	Letters	AMS 1A-B		
C3	Written Communication 1B*			

D. Social Sciences (9 units) Complete one course in each category.

D1	Human Behavior			
D2	Comparative systems	AMS 1A-B		
D3	Social Issues	AMS 1A-B		

E. Human Understanding & Development (3 Units)

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Prerequisites to SJSU Studies

Pass Writing Skills Test yes N/C Upper Division yes no

SJSU Studies	Course	Units	Where Taken	Grade
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Complete one course in each area.

Area R	Earth & environment	Engr 100W		
Area Z	Written Communication II*	Engr 100W		
Area S	Self, Society & Equality in the U.S.	Bus 186		
Area V	Culture, Civilization & Global Understanding	Tech 198		

Graduation Requirements	Course	Units	Where Taken	Grade
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American Institutions

F1	U.S. History	AMS 1A-B		
F2	U. S. Constitution	AMS 1A-B		
F3	California Government	AMS 1A-B		

Physical Education Activity (2 courses)

1	-----	Waived AY 2014-2015		
2	-----	Waived AY 2014-2015		

Completed by: _____

Date: _____