

AVIATION ADMINISTRATION (AVIA)

AVIA 3120. Fleet Planning and Scheduling (3)

This course provides a survey of the processes of airline fleet planning and scheduling with a focus on understanding the overall impact of sound fleet planning techniques and the complexity of airline scheduling as it pertains to administrative decisions.

AVIA 3130. Leadership in the Aviation Ind (3)

This course provides a survey of the traditional functions of aviation administration with a primary focus on air transportation regulators, airline certification, management and organization, forecasting methods, marketing, scheduling, fleet planning, labor relations, financing and international aviation.

AVIA 3140. Aviation Safety (3)

This course discusses and analyzes problems and issues of aviation safety including aircraft accidents, their cause, effect and the development of safety programs and procedures. The course will expose the students to pertinent terms and study individual cases where both successful and unsuccessful steps were taken.

AVIA 3160. AVIA Maintenance Engineering (3)

This course discusses and provides students with the fundamentals of aircraft maintenance management from an engineering perspective. Topics include: the role of the engineer, the role of the mechanic, technical documentation and certification, aircraft performance, line and hangar maintenance, production planning and control and finally, quality control and assurance and maintenance safety practices. In addition to lectures, this course will take a "hands-on" approach utilizing actual aircraft equipment. As a cross-listed course, Aviation Maintenance Engineering may not be taken more than once using a different letter prefix, given that only one completion will be counted toward degree requirements.

AVIA 3180. Foundations of Flight (3)

This course discusses and provides students with the fundamentals of the physics of flight. It is designed as a practical course for those with some limited engineering expertise. From the basics of forces and vectors to aircraft-specific applications, this course explains the mechanics behind the pilot's everyday operational tasks. In addition to lectures, this course will include a practical approach understanding and practicing flight principles. As a cross-listed course, Foundations of Flight may not be taken more than once using a different letter prefix, given that only one completion will be counted toward degree requirements.

AVIA 4120. Intro to Airport Operations (3)

Introduction to airport operations with a broad focus on the history and growth in aviation systems and facilities operation.

AVIA 4130. Aviation Labor Relations (3)

Students are introduced to some of the many policies and procedures connected with Aviation Labor Relations with emphasis on the air transport labor laws in the United States as well as the impact of government intervention (legislation). Additional topics addressed will include introduction to transportation policy, collective bargaining genesis, major collective bargaining legislation, organized labor (Union) policies and procedures negotiating union agreements, and grievances and their procedures.

AVIA 4160. The Gas Turbine Engine In AVIA (3)

This course provides a study of the fundamentals and evolution of the jet engine and jet propulsion. Topics include aircraft gas turbine engine theory, key components of gas turbine engines, and how they are properly maintained. In addition to lectures, this course will include some "hands on" activity utilizing standard assembly/disassembly of major components. As a cross-listed course, Gas Turbine Engine in Aviation may not be taken more than once using a different letter prefix, given that only one completion will be counted toward degree requirements.

AVIA 4180. Air Traffic Control in Action (3)

Air Traffic Control in Action is an applied course that provides a working knowledge of how, and why, the air traffic control system works. This course is appropriate for future air traffic controllers, as well as for pilots who need a better understanding of the air traffic control system. This course discusses the history of air traffic control, emphasizing the logic that has guided its development. It also provides current, in-depth information on navigational systems, the air traffic control system structure, control tower procedures, radar separation, national airspace system operation, and the FAA's future vision for air traffic management. As a cross-listed course, Air Traffic Control in Action may not be taken more than once using a different letter prefix, given that only one completion will be counted toward degree requirements.