BAC.EAINA.OTMAE.3082 (former MAE 3082)  Applied Mechanics: Deformable Solids (3 US credits / 6 ECTS credits)
This course offers a study of the concepts of stress and strain; mechanical properties of materials; Hooke’s law; axial, torsion, pure bending, and transverse loading of members; transformations of stress and strain; failure criteria; strain measurements; thin-walled pressure vessels; design for strength; energy methods; design for impact; column buckling and stability. (Prerequisite: BAC.EAINA.OTMAE.2081) Fall - English – Campus: Sophia Antipolis

BAC.EAINA.OTMAE.3191 (former MAE 3191)  Fundamentals of Thermodynamics (3 US credits / 6 ECTS credits)
A study of the conservation of energy and mass in closed-and-open-flow system. It includes the physical properties and equations of state for pure substances; the first and second laws of thermodynamics; reversible processes, Carnot cycle, as well as the notion of exergy. (Corequisites: BAC.EAINA.OTPHY.2001, BAC.EAINA.OTMAE.2081, BAC?EAINA.OTCHM.1101) Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTMTH.2201 (former MTH 2201)  Differential Equation & Linear Algebra (4 US credits / 8 ECTS credits)
First-order differential equations, linear differential equations with constant coefficients, first-order systems of differential equations with constant coefficients, numerical methods, Laplace transforms, series solutions, algebraic systems of equations, matrices, determinants, vectors spaces, eigenvalues, and eigenvectors. (Prerequisite: BAC.EAINA.OTMTH.1002) Fall - English – Campus: Sophia Antipolis

BAC.EAINA.OTPHY.2091 (former PHY 2091)  Physics Laboratory I (1 US credit / 2 ECTS credits)
Experiments to elucidate concepts and relationships presented in Physics I, to develop understanding of the inductive approach and the significance of a physical measurement, and to provide some practice in experimental techniques and methods. (Prerequisite: BAC.EAINA.OTPHY.2001) Fall - Spring - Summer - English – Campus: Sophia Antipolis

BAC.EAINA.OTPHY.2092 (former PHY 2092)  Physics Laboratory II (1 US credit / 2 ECTS credits)
A continuation of Physics Laboratory I, including experiments pertaining to Physics II. (Prerequisite: BAC.EAINA.OTPHY.2002) Fall - English – Campus: Sophia Antipolis

BAC.EAINA.OTCHM.1111 (former CHM 1111)  General Chemistry Laboratory I (1 US credit / 2 ECTS credits)
This course covers fundamental principles of modern chemistry including basic atomic theory, stoichiometry, properties of gases, Thermochemistry, electronic structure of atoms and basic concepts of chemical bonding. (Corequisite BAC.EAINA.OTCHM.1101) Fall - Spring- English – Campus: Sophia Antipolis

BAC.EAINA.OTCHM.1112 (former CHM 1112)  General Chemistry Laboratory II (1 US credit / 2 ECTS credits)
An introduction to general chemistry techniques and apparatus through experiments related to the topics of CHM1102: solutions equilibria, titrations, redox processes, kinetics, thermochemistry, etc. (Corequisite: BAC.EAINA.OTCHM.1102) Spring – French – Campus: Sophia Antipolis

BAC.EAINA.MKBUS.3603 (former BUS 3603)  Advertising and Promotion Management (3 US credits / 6 ECTS credits)
Covers various advertising techniques used in radio, TV, magazines, newspapers, direct mail, and billboards, including the relative advantages of the different media. Also reviews the integration of advertising as one element within the promotional and marketing mix. (Prerequisite: BAC.EAINA.MKBUS.3601) Fall - Spring – English – Campus: Sophia Antipolis
BAC.EAINA.PMBUS.4001 (former BUS 4001)  Total Quality Management (3 US credits / 6 ECTS credits)
Introduces the basic principles and techniques for establishing quality goals, identification of customers and customers needs, measurement of quality objectives, and development of process features and controls for improving overall system performance.  (Prerequisite: BAC.EAINA.HRBUS.3501)  –  Fall  –  English  –  Campus: Sophia Antipolis

BAC.EAINA.OTCOM.3300 (former COM 3300)  Communication Theory (3 US credits / 6 ECTS credits)
This course is designed to give students an appreciation of the objective and interpretive approaches to theory, and a wide-ranging understanding of major theories developed in the field of Human Communication. Various concepts studied in earlier courses, such as theories of culture and communication, theories of media and society, interpersonal, group and public communication, are covered in more depth. Students are encouraged, through discussion and application, to explore how these concepts relate to real-life situations.  (Prerequisite: Junior year course)  Fall – English – Campus: Sophia Antipolis

BAC.EAINA.OTCOM.3425 (former COM 3425)  Mass Communication (3 US credits / 6 ECTS credits)
A study of modern mass communication theories and the impact of mass media, including the influence of advertising and propaganda techniques on public opinion. The course requires extensive readings and 4000 words of writing in essays and short answers.  Fall – English – Campus: Sophia Antipolis

BAC.EAINA.OTCOM.3440 (former COM 3440)  Introduction to Public Relations (3 US credits / 6 ECTS credits)
A study of communication principles and the practices of developing good will between a person, firm, or institution and the public, and the means of gaining publicity and influencing people. Students analyze specific case studies and propose appropriate strategies and campaigns.  Fall – Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTCOM.3500 (former COM 3500)  Professional Communication and Career Development (3 US credits / 6 ECTS credits)
This class is designed to teach students about the history of French Institutions and the world of work in public/private sectors. Students will learn how to make a portfolio of skills, develop a professional network, write a CV and how a professional interview will be conducted.  Fall - French-English – Campus: Sophia Antipolis

BAC.EAINA.OTCOM.3530 (former COM 3530)  Writing for Multi-Media (3 US credits / 6 ECTS credits)
(Former Writing for Mass Communication COM3520)
The purpose of this course is to familiarize students with the Media writing format and to give them a foundation in the writing process used in the Mass Media. The course also aims to teach students the different research methods needed for Media writing and to give them an understanding of journalistic style and language usage. Some of the themes dealt with in the course are the Role of the Journalist, The Function of News Agencies, Ethics in Journalism and the Role of the Media in Public Relations.  (Prerequisite: BAC.EAINA.OTCOM.3425)  Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAHF.3101 (former AHF 3101)  Human factor (3 US credits / 6 ECTS credits)
This course explores the field of aviation psychology, consequences of self-imposed and environmental stress, fatigue on flight safety are discussed. It also introduces engineering psychology (ergonomics) that examines the interaction of humans and machines. The course also analyzes aircraft accidents and industrial safety concepts, and the design of aircraft, computers and other products as well as the problems linked to crew management.  Fall — English – Campus: Sophia Antipolis

BAC.EAINA.OTAVM.3201 (former AVM 3201)  Aviation Planning (3 US credits / 6 ECTS credits).
Introduces the student to the requirements, issues and processes involved in aviation planning. Includes indepth study of the sources of aviation data, forecasting methods, the airport master planning process and environmental issues and requirements.  Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVM.3202 (former AVM 3202)  Airport Design (3 US credits / 6 ECTS credits).
This course provides an understanding of the DGAC and EASA standards for airport design. At the conclusion of the course the student will be able to set up an airport layout and airspace drawing answering to the demands of aviation authorities.  (Prerequisite: BAC.EAINA.OTAVM.3201).  Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVM.4302 (former AVM 4302)  Air Law (3 US credits / 6 ECTS credits)
Overviews the fundamentals of aviation law. Emphasizes factors guiding operational decision making by aviation managers and professional pilots to minimize exposure to legal liability.  Spring – English

BAC.EAINA.OTAVM.4701 (former AVM 4701)  Airport Management (3 US credits / 6 ECTS credits)
Studies modern airports, including their roles, functions and status in the national air transportation system;
sponsorship and management alternatives; management of airport development, operations and business matters; and discussion of current and emerging public airport issues. (Requirement: Senior standing.) (Corequisite: BAC.EAINA.OTAVM.3201). Spring - English

BAC.EAINA.OTAVS.2102 (former AVS 2102) Aerodynamics (3 US credits / 6 ECTS credits)
The main objective of this course is to introduce students to the important topics of aerodynamics and flight mechanics. Fall – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVS.2222 (former AVS 2222) Aviation Physiology (3 credits)
This course explores the basic physical, biological, chemical and atmospheric sciences in order to understand the effects of flight on human physiology. It examines the direct effect of atmospheric structures and forces on the human cardio-respiratory and neurological systems. Aviation related disorientation and illusions are examined in detail. Special situations such as high altitude and high speed flight and the effect of "G" forces are explored. The consequences of self-imposed and environmental stress, fatigue, medication, drugs and alcohol, and physical fitness of the aviation professionals on flight safety are discussed. Fall - English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.1001 (former AVT1001) General Navigation (3 US credits / 6 ECTS credits)
Academic training for theoretical ATPL exams. This course covers the different tools and fundamental methods to prepare a navigation. Topics include Direction, Latitude and Longitude, Maps & Pilot navigation, Gyroscopes & Compass, Flight Management Systems (FMS), Area Navigation (RNVA) Systems and Inertial Navigation System. Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.2001 (former AVT2001) Instrumentation (3 US credits / 6 ECTS credits)
Academic training for theoretical ATPL exams. This course explores and explains the use of the different on board instruments. Topics include Flight Instruments, Automatic Flight Control Systems, Warning & Recording, Power Plant & Systems Monitoring Instruments. Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.2002 (former AVT2002) Flight Planning & Monitoring (3 US credits / 6 ECTS credits)
This course explores the planning and monitoring of flights for single and multiple engine aircrafts. It covers the fuel, weather and topographical flight. The planning and monitoring in critical flight conditions is also explored. Fall – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.3001 (former AVT3001) Aircraft Performance (3 US credits / 6 ECTS credits)
Academic training for theoretical ATPL exams. This course explores and explains aircraft performances. Topics include Takeoff, Climb and Descent, Cruise and Landing performances for the three main classes of Aircraft (Prerequisite: BAC.EAINA.OTAVS.2102 Corequisite: BAC.EAINA.EDS.1031). Spring – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.3501 (former AVT3501) Aircraft gas Turbine and Performance (3 US credits / 6 ECTS credits)
This course aims to provide students with a thorough understanding of energy systems, heat transfer and thermodynamic applications to Internal Combustion engines. An advanced understanding of the theory and operation of gas turbine engines is also addressed. At the completion of this unit, students will have developed an understanding of basic thermodynamics as applied to engine systems. Students will have also gained a qualitative and quantitative understanding of both Internal Combustion and Gas Turbine Engines as used in aircraft. Spring - English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.4200 (former AVT4200) Aircraft General Knowledge (4 US credits / 8 ECTS credits)
The main objective of this course is to introduce students to the important organes of an aircraft. Fall – English – Campus: Sophia Antipolis

BAC.EAINA.OTAVT.4202 (former AVT 4202) Operational Procedures (2 US credits / 4 ECTS credits)
The aim of this course is to explain the theoretical background necessary to prepare and operate a fleet. Fall – English – Campus: Sophia Antipolis
BAC.EAINA.OTAVT.4301 (former AVT4301)  
Aviation Safety (3 US credits / 6 ECTS credits)  
This course explores the historical roots of aviation safety, the role of attitudes on safety and security procedures, legislation, organizations and planning. It examines the roles of FAA, EASA and the BEA in accident prevention and investigation.  
Spring – English – Campus: Sophia Antipolis