

AVIATION

Programs

- Aviation - Unmanned Aircraft Systems, Certificate of Achievement (Level I) (<https://catalog.nmc.edu/archives/2021-2022/programs-az/aviation/aviation-unmanned-aircraft-systems-certificate-achievement-level-i/>)
- Aviation, Associate in Applied Science Degree (<https://catalog.nmc.edu/archives/2021-2022/programs-az/aviation/aviation/>)

Courses

Aviation Flight

AVF 111 - Private Flight

Credit Hours: 5, Contact Hours: 5

Division: Aviation

A flight course structured to provide a minimum of 40 dual and solo flight hours to meet the aeronautical experience requirements for a private pilot. Upon completion of this course, the student will have attained the FAA Private Pilot Rating. Course requires 42.4 hours of flight time, 8.0 hours of pre/post, and 17.5 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$230/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): Instructor Permission Required

AVF 132 - Instrument Flight

Credit Hours: 4, Contact Hours: 4

Division: Aviation

A flight course designed to meet the aeronautical experience requirements for the FAA Instrument check ride. Upon completion of this course, the student will have attained the FAA Instrument Rating. Course requires 39.8 flight hours, 9.8 hours of pre/post, and 17.7 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$230/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): Private Pilot Rating; AVF 111 and AVG 101

AVF 230 - Commercial Flight I

Credit Hours: 2, Contact Hours: 2

Division: Aviation

The student will advance their skills required by the FAA to obtain a Commercial Pilot Certificate. They will gain experience in different aircraft with the opportunity to gain a Tailwheel Endorsement or Seaplane Rating. Students will increase their instrument proficiency while conducting cross country flights. Course requires 35 flight hours, 6 of pre/post, and 7 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$230/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 130 or AVF 132 and AVG 252, both with a 2.0 or better or equivalent rating

AVF 232 - Commercial Flight II

Credit Hours: 3, Contact Hours: 3

Division: Aviation

A flight course structured to provide a dual and solo flight hours to partially fulfill the flight hour requirements for the FAA Commercial Pilot Certificate. This course will provide a review of VFR cross country navigation procedures and introduce the student to multi-engine flight. Course requires 35 flight hours, 3.0 hours of pre/post, and 27.8 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for single engine ground instruction and \$69/hour for multi-engine flight instruction and \$230/hour for the single aircraft and flight instructor and \$340/hour for the multi-engine aircraft and instructor. Group 2 course.

Required Prerequisite(s): AVF 230 - may be taken concurrently

AVF 234 - Commercial Flight III

Credit Hours: 2, Contact Hours: 2

Division: Aviation

This course is the last of three flight courses required to obtain the FAA Commercial Pilot Certificate. This course consists of flight hours with an emphasis on commercial flight maneuvers in preparation for the Commercial Pilot FAA Practical Test. Upon completion of this course, the student will have attained the FAA Commercial Pilot Certificate. Course requires 24.6 flight hours, 3.6 hours of pre/post, and 8.0 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$230/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 232 with a 2.0 or better

AVF 271 - Multi-Engine Flight

Credit Hours: 1, Contact Hours: 1

Division: Aviation

This flight course is designed to give the student the aeronautical knowledge, proficiency, and experience required to meet the FAA Practical Test Standards for the Private or Commercial Multi-engine rating. Upon completion of this course, the student will have attained the FAA Multi-engine Land Rating. Course requires 4 flight hours, 1 hour of pre/post, and 1 ground hour. Hourly rates effective March 2018 are \$69/hour for ground instruction and \$340/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 234 with a 2.0 or better

AVF 272 - Multi Engine Instructor

Credit Hours: 2, Contact Hours: 2

Division: Aviation

In this course, the student will learn the skills to be a Certified Multi Engine Flight Instructor (MEI). They will master the skills of the Private and Commercial Pilot ratings. In addition, they will learn how to be an effective teacher and understand all FAA rules and regulations that accompany being an instructor. Course requires 5 flight hours, 1.3 hours of pre/post, and 5 hours of ground instruction. Hourly rates effective March 2018 are \$69/hour for ground instruction and \$271/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 382

AVF 274 - Tailwheel Flight**Credit Hours: 1, Contact Hours: 1**

Division: Aviation

This course is designed to provide the student with the skills, knowledge, and experience to receive a logbook endorsement to fly tailwheel aircraft. Course requires 4 flight hours and 1 hour of pre/post. Hourly rate effective March 2018 is \$209/hour for the aircraft and flight instructor. Group 2 course.

Group 2 course.

Required Prerequisite(s): AVF 111 and AVG 101 - both with a 2.0 or better

AVF 275 - Seaplane Flight**Credit Hours: 2, Contact Hours: 2**

Division: Aviation

In this course, the student will gain the skills, knowledge, and experience to receive endorsement for the FAA Practical Test. Students will learn in a Piper Super Cub on floats as they demonstrate maneuvers and landings. Course requires 5 flight hours, 1.2 hours of pre/post, and 1 hour of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$209/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 234 with a 2.0 or better

AVF 283 - Upset Maneuver Training**Credit Hours: 1, Contact Hours: 1**

Division: Aviation

In this course, the student will learn the foundations to safely perform basic aerobatic maneuvers. Also, the student will gain confidence and skills necessary to recover from various unusual flight attitudes that will increase the students' overall flight safety. Course requires 6 flight hours, 1.5 hours of pre/post, and 2 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$209/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 111 and AVG 101, both with a 2.0 or better

AVF 284 - Instrument Flight Instructor**Credit Hours: 2, Contact Hours: 2**

Division: Aviation

The student perfects both teaching and instrument flying skills while sitting in the right seat of the cockpit. The student develops the knowledge and ability to teach others instrument flying procedures. Course requires 6 flight hours, 1.2 hours of pre/post, and 8 hours of ground instruction. Hourly rates effective March 2018 are \$59/hour for ground instruction and \$230/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 382 with a 2.0 or better

AVF 382 - Flight Instructor Rating**Credit Hours: 4, Contact Hours: 4**

Division: Aviation

In this course the student will learn the skills to be a Certified Flight Instructor (CFI). They will master the skills of the Private and Commercial Pilot ratings. In addition they will learn how to be an effective teacher and understand all FAA rules and regulations that accompany being an instructor. Course requires 18 flight hours, 4.5 hours of pre/post, and 20 hours of ground instruction. Hourly rates for effective March 2018 are \$59/hour for ground instruction and \$212/hour for the aircraft and flight instructor. Group 2 course.

Required Prerequisite(s): AVF 234 with a 2.0 or better and instructor permission

Aviation Ground

AVG 101 - Private Ground School**Credit Hours: 5, Contact Hours: 5**

Division: Aviation

This course will provide the aeronautical knowledge required of a private pilot and prepare the student to take the FAA Private Pilot written examination. Topics include: aerodynamics, engine and aircraft systems, airport operations, weight and balance, aircraft performance, Federal Aviation Regulations, meteorology, airspace, navigation, and flight physiology. Group 2 course.

Required Prerequisite(s): Instructor Permission Required

AVG 102 - Leadership in Aviation**Credit Hours: 2, Contact Hours: 2**

Division: Aviation

This course identifies and develops leadership characteristics specifically applicable to professional pilots. This course is designed to teach students how to combine strong technical knowledge, aeronautical decision-making and ethics to be a successful leader and contributor in the aviation industry. Group 2 course.

Required Prerequisite(s): AVF 111, may be taken concurrently

AVG 161 - Mechanics for Pilots**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course will teach the students about the systems, components, safe repair, and regulations involved with maintaining and operating small aircraft. Students will learn in the classroom and in the maintenance hangar. Group 2 course.

AVG 190 - Aviation Weather**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course offers thorough coverage in the application and analysis of meteorological charts and how they pertain to aviation. It emphasizes the need for advanced knowledge on how NWS/NOAA charts are derived and how to understand their use in aviation today. Additional emphasis will be placed on predominant weather patterns, associated weather and planning flights to avoid severe weather. A basic understanding in the theory of meteorology is desired. Group 2 course.

Recommended Prerequisite(s): AVG 101

AVG 201 - International Aviation**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course will provide an overview and analysis of the international aviation industry. International oversight organizations will be reviewed along with interactions with national regulations. Students will evaluate country differences with regard to aviation regulations, global aviation safety and business forecasts. An analysis of cultural differences for International Aviation Operations will be covered with case studies from current international pilots. Group 2 course.

Recommended Prerequisite(s): Placement into ENG 111

AVG 202 - Advanced Aircraft Systems**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course is designed to prepare those students seeking to be career pilots to be successful in the intense aircraft systems ground schools offered by the airlines, manufacturers, and private training providers such as Flight Safety. Each major system of large turbine aircraft will be studied, first, in a general overview and then for a specific model, large transport category, jet aircraft. Group 2 course.

Recommended Prerequisite(s): AVG 101

AVG 204 - Airline Aircraft Ground School**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course is designed to prepare those students seeking to be career pilots to be successful in the intense aircraft ground schools provided by the airlines. Canadair Regional Jet systems, limitations, normal and emergency checklist, and flows and flight procedures will be covered in this course. Group 2 course.

Recommended Prerequisite(s): AVG 202

AVG 231 - Aviation Law**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

A study of fundamental legal and aviation law principles as they apply to the various segments of the aviation industry. There will be special emphasis on contemporary aviation legal issues. Group 2 course.

AVG 240 - Corporate Aviation Ground**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

Students taking this course will learn about the aspects of business aviation. Aircraft types, regulations, business customs, and future outlooks of corporate aviation will be presented. Group 2 course.

Recommended Prerequisite(s): AVG 202

AVG 251 - Commercial Ground School**Credit Hours: 4, Contact Hours: 4**

Division: Aviation

This course is an advanced study of aviation topics including: GPS, meteorology, radio communications, airspace, and Federal Aviation Regulations. In addition, aircraft systems, career opportunities, aviation safety, aircraft weight and balance, performance charts, and aerodynamics are reviewed with emphasis on commercial pilot operations. Group 2 course.

Required Prerequisite(s): AVG 252 with a 2.0 or higher

AVG 252 - Instrument Ground School**Credit Hours: 4, Contact Hours: 4**

Division: Aviation

This course provides the aeronautical knowledge required for the instrument rating and prepare the student to take the FAA Instrument Rating - Airplane written examination. Topics include: flight instruments, radio navigation, departure, enroute and arrival procedures, VOR, NDB, ILS, and GPS approaches, IFR emergencies, aviation weather, and IFR cross-country flight planning. Group 2 course.

Required Prerequisite(s): AVF 111 and AVG 101 both with a 2.0 or higher; or equivalent rating

AVG 285 - Crew Resource Management**Credit Hours: 3, Contact Hours: 3**

Division: Aviation

This course is an introduction to the principles of crew resource management (CRM) and will acquaint students with the concepts and skills required of aircrew members in safely operating multi-place aircraft. Topics will include flight safety concepts, communications skills, effective teamwork principles, and aircraft accident case studies. Students will practice CRM concepts in the Frasca flight training device. Group 2 course.

Required Prerequisite(s): AVG 252-may be taken concurrently

AVG 381 - Instructor Ground School**Credit Hours: 5, Contact Hours: 5**

Division: Aviation

A course of study that will provide basic education principles and a review of the aeronautical knowledge required for the flight instructor (airplane single engine) certificate and prepare the student to take the FAA Fundamentals of Instruction (FOI) and the Flight Instructor-Airplane Single Engine written examinations. Through classroom presentations and one-on-one student teaching, students will gain practical teaching experience. Group 2 course.

Required Prerequisite(s): AVF 230 and AVG 251, both with a 2.0 or higher