

**King Schools Online
Internet Learning Programs**

RNAV-1 & -2 Pilot Certification

SYLLABUS

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RNAV-1 & -2 Pilot Certification

[Draft] Syllabus

INTRODUCTION

The King Schools Online RNAV-1 & -2 Pilot Certification Course meets the pilot training requirements established by FAA for RNAV-1 and -2 pilot certification in Advisory Circular 90-100. This course:

- Provides an overview of RNAV-1 (terminal) and RNAV-2 (enroute) procedures.
- Covers requirements for aircraft and pilot certification for RNAV-1 and RNAV-2 authorization in the U.S.
- Provides required pilot academic training for RNAV authorization
- Must be used in conjunction with company and equipment specific pilot training
- May be used for both initial and recurrent training in Part 91 Subpart K, Part 121, Part 125, Part 129, or Part 135 operations
- Is offered only through individual Internet study
- Is efficient and practical

COURSE ELEMENTS AND STRUCTURE

The King Schools Online RNAV-1 & -2 Pilot Certification Course contains three major subject areas (Labs) with two or more distinct Lessons per Lab. Following each Lesson's study materials, the pilot sees a quiz containing multiple-choice and/or True/False questions. There are approximately 40 questions in the course. Most pilots will require at least one hour to complete this course.

COMPLETION STANDARDS

Pilots complete the course when all the Labs are checked off with a completion date on the course main menu. An individual Lab is finished after completing all of the Lessons contained in that Lab. Lesson completion requires accessing each lesson page of study materials and correctly answering all questions in the quiz associated with that Lesson.

CERTIFICATE OF COMPLETION

A Completion Certificate individualized for the pilot enrolled in the course and a logbook endorsement may be accessed at the "Print Course Completion Certificate and Logbook Endorsement" icon on the main menu only after the entire course has been completed. Pilots clicking the "Print Course Completion Certificate" icon before the course has been completed receive a message saying that the certificate will be available after the entire course is completed.

ENROLLMENT PROCEDURES

A pilot may individually order and enroll in the course, or flight departments may order multiple courses and receive a “key” for each course ordered. The flight department then assigns a key to each pilot requiring training. Each pilot registers individually at www.kingschoolsonline.com for the course.

COURSE STUDY

The pilot first enrolls in the course, and then logs in to access the course Labs and Lessons. If the pilot has insufficient time to complete the course in one session, the pilot may log out. The program records all Lesson and Lab completions and every question answered. When returning to the course, the pilot may resume at the last point of progress.

LAB 1

UNDERSTANDING RNAV

LESSONS

- 1 **What RNAV Is**
Lesson Objective: To learn the overall concepts and definitions of Area Navigation (RNAV), including an overview of RNAV terminology and references and who must be certified for RNAV operations.
- 2 **Navigational Performance Standards**
Lesson Objective: To learn the basic concepts of Performance Based Navigation
- 3 **Terminology**
Lesson Objective: To learn basic RNAV terminology.
- 4 **References**
Lesson Objective: To learn basic RNAV reference materials.
- 5 **Using RNAV**
Lesson Objective: To learn the required navigation infrastructure, and aircraft equipment.
- 6 **RNAV Routes, DPs, and STARs**
Lesson Objective: To learn the types of routes and procedures using RNAV-1 and RNAV-2, and their chart depiction.
- 7 **RNAV Procedure Design**
Lesson Objective: To learn the basic design criteria for enroute and terminal RNAV routes and procedures, including terrain clearance, waypoints, and chart depiction.
- 8 **Chart Depiction and Textual Descriptions**
Lesson Objective: To learn various RNAV leg types and how they define paths within an RNAV procedure.

LAB 2

RNAV OPERATOR APPROVAL PROCESS

LESSONS

- 1 **Aircraft Certification for RNAV**
Lesson Objective: To provide specific information on required aircraft equipment, RNAV system eligibility, and the RNAV system approval process.

- 2 **Operational Authorization for RNAV**
Lesson Objective: To provide the specific information necessary to establish operational procedures for obtaining approval for RNAV flights in the U.S.

- 3 **Documentation for Conducting RNAV Operations**
Lesson Objective: To provide the specific information necessary to document operational and maintenance procedures for obtaining approval for RNAV flights in the U.S.

LAB 3

RNAV FLIGHT CREW OPERATIONAL PROCEDURES

LESSONS

- 1 Preflight Planning**
Lesson Objective: To learn preflight planning procedures for flight using RNAV, including suffix codes, NOTAMs, use of onboard navigation data, and interpretation of routes and clearances.
- 2 RNAV Procedures**
Lesson Objective: To learn RNAV operating procedures such as levels of automation and compliance with ATC clearances. You will also be familiar with requirements for system-specific information and operating procedures.
- 3 Route Verification**
Lesson Objective: To learn the requirements for verification of the assigned route and correct entry of the route/DP/STAR into the navigation system.
- 4 Pre-Takeoff Position Verification**
Lesson Objective: To learn the requirements for verification of aircraft position before takeoff using various navigation systems.
- 5 In-Flight Procedures**
Lesson Objective: To learn the requirements for navigation accuracy and the use of AFCS bank limiting features.
- 6 RNAV Equipment Operating Procedures**
Lesson Objective: To learn about the installed system knowledge requirements for RNAV operations.
- 7 RNAV DP and STAR Specific Requirements**
Lesson Objective: To learn procedure-specific requirements for engagement altitudes, use of the lateral deviation indicator, and position confirmation.

8 Contingency Procedures

Lesson Objective: To learn approved procedures for failure of navigation equipment and communications when operating under RNAV.