

Helicopter Flight Maneuver2

Syllabus Number

2E129

Special Subjects

Elective 2 credit

IMAI, Michio

1. Course Description

Students need to learn the necessary knowledge of a helicopter pilot, such as flight manual, emergency situation, rules / regulations / flight procedures. Mainly, this course is in a lecture style, but practical training may be held as needed.

Learn knowledge related to DP2.

2. Course Objectives

The objective are learning:

- Aero characteristics, mechanism, flight characteristics, and flight manual of training helicopters.
- Signals of an emergency, prevention, and measure.
- Enough knowledge to fly a helicopter safely, as a pilot in command.

3. Grading Policy

Students are evaluated by the result of the exam (80%) and quizzes (20%).

The answer of each quiz will be explained.

4. Textbook and Reference

Textbook

Helicopter Flying Handbook

JAEA,ISBN978-4-902151-86-2

Reference

AIM-J JAPA,ISBN978-4-931160-02-6

R22 Flight Manual

5. Requirements(Assignments)

Please review the assigned vocabularies in notebooks, prior to each class (1hour).

Learn the necessary of knowledge for the practical training in this course.

Review and organize the knowledge in notebooks (2hours).

6. Note

This course includes various subjects of a national pilot examination.

7. Schedule

- [1] Learn R22 flight manual, summary of 1st chapter, 2nd chapter limitation, differences between colors of instructs, limit on air speed, limit on rotor rotation speed, weight limit, feasible center of gravity range, flight and maneuvering limit.
- [2] Learn R22 flight manual, 2nd chapter limitation, limitation on operational styles and limitation on fuels, instrument, placard, and additional subjects on TCD(technical circular directive).
- [3] Learn R22 flight manual, 3rd chapter emergency procedure to execute the right procedure.
- [4] Learn R22 flight manual, 4th normal operation and check the procedure.
- [5] Learn R22 flight manual, 5th chapter performance and use of performance charts. Be able to calculate 6th chapter's weight / center of gravity.
- [6] Learn emergency situation, autorotation.
- [7] Learn emergency situation, engine failure and height / velocity diagram
- [8] Learn emergency situation, settling with power, and blade stall.
- [9] Learn emergency situation, dynamic roll over, and ground resonance.
- [10] Learn emergency situation, mast bumping, anti-torque system failure.
- [11] Learn instrument flight, night flight, and decision making for a flight.
- [12] Learn AIP GEN ENR1 general rules.
- [13] Aeronautical information publication
Learn the alert on ENR5. Obtain necessary aeronautical information for a flight plan.
- [14] Make presentations on obtained aeronautical information for a flight plan, by individuals.
- [15] Final exam, / overview