Department of Aeronautics
Chair for Aviation English

UNIVERSITY OF ZAGREB
FACULTY OF TRANSPORT AND TRAFFIC SCIENCES

UNDERGRADUATE STUDY: AERONAUTICS

SEMESTER (II)

Syllabus

Academic year 2024/2025

Course:	**Radiotelephony Communications 1**				
Head of course: **Ivana Francetić**, B.A.					
Co-lecturers: **Siniša Prekratić**					
Semester: **S**	Course code: **253989**	Lectures: **30**	Auditory exercises: **15**	Laboratory exercises: **0**	ECTS credits: **3**
Group for lectures: **25 students**			Group for auditory and laboratory exercises: **25 students**		

Objective of the course:

- To identify standard phraseology applicable in the aerodrome environment by presenting examples of phraseology use in specific situations.
- To identify scenarios where mutual understanding of the work environment and the loads of pilots and air traffic controllers is extremely important.

Learning outcomes:

After the completion of the course the student will be able to:

1. Explain the meaning of the essential names prescribed by the ICAO Annexes.
2. Demonstrate proper use of aviation alphabet and numbers.
3. Apply standard phraseology when issuing information, instructions and clearances for VFR departures and arrivals in aerodrome traffic.
4. Apply standard phraseology when issuing information, instructions and clearances for IFR departures and arrivals in aerodrome traffic.
5. Apply standard phraseology to provide VFR-VFR, IFR-VFR traffic information.
6. Demonstrate conversation with multiple aircraft at once.
7. Develop a culture of listening and respecting standard phraseology.

LECTURES and EXERCISES

Week	Syllabus	Form of classes	Performed by	Lessons	Remark
1.	▪ Introduction into course ▪ Definitions and abbreviations ▪ Transmitting technique ▪ Transmission of letters, numbers and time, exceptions to numbers, Call signs (aircraft and aeronautical stations) ▪ Categories of messages and order of priority	L	Ivana Francetić	3	
2.	▪ Initial, multiple, general call, Standard words and phrases ▪ Establishment and continuation of communication • Composition and contents of messages • Read back requirements (acknowledgement of receipt) • Test procedures (radio check and readability scale)	L	Ivana Francetić	3	
3.	▪ Read back requirements (acknowledgement of receipt) ▪ Test procedures (radio check and readability scale)	AE	Siniša Prekratić	3	
4.	• Direction finding (Q-codes) • Aerodrome traffic circuit • Airspace classification • Weather information (wind shear, wake turbulence, RVR, RWY surface conditions, braking action, cloud cover, water on the RWY) ATIS, VOLMET • Essential aerodrome information • Departure information	L	Ivana Francetić	3	
5.	▪ Engine starting procedures (Start-up, Push-back) ▪ Towing procedures ▪ Aerodrome vehicles	L	Ivana Francetić	3	

6.	▪ Weather information ▪ Engine starting procedures ▪ Towing procedures ▪ Aerodrome vehicles ▪ **Intersemestral quiz 1**	AE	Siniša Prekratić	3	
7.	▪ ATS route (ATC departure) clearance (VFR and IFR) ▪ Taxi procedures ▪ Line-up ▪ Conditional line up clearance	L	Ivana Francetić	3	
8.	▪ Take-off ▪ Missed approach, Go around, Low approach, Low pass, Touch and go ▪ Full stop landing ▪ After landing ▪ Radio communication failure (audio and visual signals)	L	Ivana Francetić	3	
9.	▪ ATS route (ATC departure) clearance (VFR and IFR) ▪ Taxi procedures ▪ Line-up clearance ▪ Take-off ▪ Missed approach, Go around, Low approach, Low pass, Touch and go ▪ Full stop landing ▪ After landing ▪ Radio communication failure (audio and visual signals)	AE	Siniša Prekratić	3	
10.	▪ Entering and flying in the traffic circuit/pattern/zone	L	Ivana Francetić		
11.	▪ Traffic information ▪ Delaying actions (extended downwind, one orbit left/right).	L	Ivana Francetić	3	
12.	▪ Traffic information ▪ Entering and flying in the traffic circuit/pattern/zone ▪ Delaying actions (extended downwind, one orbit left/right).	AE	Siniša Prekratić	3	

13.	▪ Co-ordination between ATS units (transfer of control, approval request, etc.) ▪ Whole flight	L	Ivana Francetić	3	
14.	▪ Croatian VFR phraseology	L	Ivana Francetić	3	
15.	▪ Co-ordination between ATS units (transfer of control, approval request, etc.) ▪ Croatian VFR phraseology ▪ **Intersemestral quiz 2**	AE	Siniša Prekratić	3	

L = Lectures; **AE** = Auditory Exercises; **LE** = Laboratory Exercises; S = Seminars

STUDENT OBLIGATIONS AND EXAMS

Conditions for obtaining signatures:
It is mandatory to attend classes (1 ETCS point). The student acquires the right to get the "completed" course status if they have attended at least 80% the lectures and 80% of exercises. The attendance in the percentage lower than 80% at lectures and exercises may be justified by adequate medical note.
Continuous monitoring of progress is achieved through taking short, unannounced tests, the aim of which is to check the understanding of the subject matter. The tests are not graded, but marked as passed/not passed (passed test is the one with 85% of the correct answers).
There are no pre-conditions from other courses except basic knowledge of the English language.

Written exam:
A student is considered to have successfully passed the written part of the exam if they have solved more than 85% of the questions correctly. (1 ETCS point).
Students can pass the written part of the exam by writing two partial exams or by writing the final exam, i.e.:

a) **Written partial exams/quizzes –** consists of writing two written tests during the semester. The first quiz is written around the 7th week of the semester. The second quiz is written at the end of the semester and can be attended by the students who have acquired a "completed" course status.
b) **Written test –** consists of a final written exam during regular examination periods. Students who have passed two partial exams are exempted from writing the final exam (average success in the partial exams is calculated as the grade of the written exam).

Oral exam: To attend the oral part of the exam, the student has to pass two written partial exams/ quizzes or the final written exam. Oral part of the exam is 1 ETCS point.
A total of 3 points collected means that the student has fulfilled all the obligations and passed the exam.

LITERATURE

a) Obligatory literature:

1. Material published on Merlin system
2. AIC A 007/2021 Postupci za obavljanje govorne komunikacije, HKZP, srpanj 2021
3. Commission Implementing Regulation (EU) 2016/1185, 20 July 2016
4. Commission Implementing Regulation (EU) No 923/2012, 26 September 2016
5. Doc 9432, Manual of Radiotelephony, ICAO, 2006

b) Recommended literature:

1. Doc 4444, Air Traffic Management, ICAO, 2007
2. ICAO Annex 2, latest edition
3. ICAO Annex 10, Vol. II, Ch. 5, latest edition
4. Robertson, F. A., Airspeak, Pearson Longman, 2008
5. JAA TEST PREP, VFR COMM/IFR COMM, Aviationexam.com, 2006
6. Communications, JAA ATPL Training, Jeppesen Sanderson Inc., 2004
7. 090 Communication, JAA ATPL theoretical Knowledge Manual, Jeppesen GmbH, 2002

METHODOLOGY OF THE IMPLEMENTATION OF THE COURSE PLAN

1. LECTURES

Lectures follow material given on Merlin. New Aviation English terminology is being presented and the principles and standards of radiotelephony communication are explained.

2. AUDITORIAL EXERCISES

The basic function of the exercises is to practice voice communication. Auditory materials are also used, especially for independent student work at home or in the laboratory. The language skills of speaking and listening are practiced. The importance of linking ICAO Level 4 Aviation English and RT communication is emphasized in order to achieve fluency and precision in radio communication as an inevitable safety factor.

3. DOCUMENTATION

Kept electronic records of presence in lectures and exercises (students carry out records using student cards). There is a paper and electronic record database in Excel for all student. All written exams are being kept at the Department of Aeronautics.

4. SCORING SYSTEM

Table 1 The scoring system for the monitoring of students and explained credit values in ECTS credits

no	Segment:		Required credits to be achieved:		Remark:	ECTS credits
			Min.	Max.		
1.	Presence in lectures					**1**
2.	2 quizzes	=1 written exam				**1**
3.	Oral exam					**1**
Σ						**3**

Table 2 - Explanation of the credit values in evaluations:

Achieved % in the written exam	Grade
96 – 100%	Excellent (5)
92 – 95 %	Very good (4)
88 – 91 %	Good (3)
85 – 87%	Sufficient (2)

Information for students (scoring system, implementation plan, learning outcomes, syllabus, literature, consulting teachers, announcement of results of examinations or colloquium, and all other information):

- **http://www.fpz.unizg.hr**