



# Maritime University Marine traffic Engineering Institute

## Department of Navigational Equipment



# Regulations of the radio-navigation laboratory

The laboratory belongs to the department of navigation equipment at the Institute of Maritime Traffic Engineering. The regulations are valid for 2018/2019

The aim of the laboratory classes is:

- improvement of skills in handling and using receivers of electronic positioning systems in accordance with the STCW98 / 95 Convention (International Convention on Standards of Training, Certification and Watchkeeping for Seafarers),
- implementation of engineering education in accordance with the requirements of obtaining a university diploma approved by the competent ministry.

## I General rules

1. The laboratory is housed in rooms 405 and 408, in which there are training positions with receivers of GPS, DGPS, and AIS systems.
2. Laboratory classes take place according to the schedule presented during the first classes. Every student is obliged to take health and safety training at the beginning.
3. Turning on the power supply of receivers and computers, as well as switching them off, may be done after obtaining the permission of the teacher.
4. Any equipment damage or malfunction should be immediately notified to the teacher.
5. Do not move away from your measuring station during exercise.
6. It is forbidden to smoke, drink and eat foods and talk loudly.
7. Any breaches of security rules will result in the proceedings provided for in the regulations of studies.
8. Unreasonable lateness to classes will be treated as absence.
9. **The teachers are responsible for all organizational issues.**

## II Conditions of execution and receiving a credit for exercises

1. Classes are divided into two periods.
  - In the first period, classes take place over the next 7 meetings. Exercises 1 through 5 are performed (see exercise schedule). During this period the construction, service and individual functions of the satellite navigation system receivers are learned.
  - After completing the first period exercises, the Practical Test of the handling and using of the receivers' navigation functions of individual systems takes place.
  - **Only students with a positive assessment of theoretical knowledge and reports can join the Practical Test.**
  - The second period consists of performing four exercises in the field of 6-9, aimed at learning about the possibilities of receivers in the field of planning and navigation using the possibility of their cooperation with other devices and / or systems. The accuracy of individual navigation system receivers is also verified.
2. students are obliged to prepare for the exercise based on the indicated literature, lectures and instructions for the exercise.
3. A prior condition for joining exercises is having a measurement card. Its lack results in a failure to perform the exercise! A template of the measurement card for a given exercise is available on the Internet.
4. During the exercise, the student's knowledge in written or verbal form is checked in accordance with the scope of theoretical preparation given in the instruction of the exercise.
5. During the exercise, a record of its course should be made on the measurement card (record of activities performed on the exercise), and after finishing the exercise the measurement card should be signed by the teacher.
6. Each student independently performs a report, which consists of a properly completed measurement card which includes answers for questions asked by the teacher.  
**Only manual-written and readable reports are accepted, whose pages are properly arranged (in order of execution) and permanently connected!**
7. Every report is evaluated! The report must be submitted during the next laboratory classes when checking attendance. The lack of a report equals obtainment of unsatisfactory mark.
8. The classes credit includes the assessment of the report and the theoretical knowledge, as well.
9. Unsatisfactory marks on theoretical knowledge can be corrected twice on the dates given by the teachers.
10. In case of a lack of a report or its negative evaluation, it should be corrected and / or completed and submitted at the next meeting (the second term).
11. **If the report is assessed unsatisfactory twice, the given exercise should be repeated.**
12. Failure to pass the exercise results in an unsatisfactory evaluation of the Practical Test in the first term.
13. Unsatisfactory evaluation of the Practical Test in the first term, causes the unsatisfactory assessment of the whole course Navigational Equipment.
14. A student can obtain a positive assessment of the course Navigational Equipment as a retaking a test, by joining to the Practical Test at the second term (the second approach of Practical Test).

The condition for joining the Practical Test at the second term is to obtain positive grades of the theoretical scope (exercises 1 - 5) and all exercises reports of both the first and second periods. In the case of unsatisfactory grades of the theory, there is a possibilities to correct them by answering, before the Practical Test, the questions covering the knowledge of all five exercises from the first cycle ("robber").

### III Final conditions

1. Obtaining the pass of the laboratory requires a **systematically obtaining passes of particular exercises**.
2. Overdue exercises can be made if absences are justified.
3. Absences are justified in the case of representing the University (excuse from the dean), illness (sick leave) or random events (depends on the decision of the teacher, or by the Dean decision, when in a teacher's opinion an explanation is insufficient).
4. Teachers give the dates of consultations (office hours) when unsatisfactory assessment can be improved and perform overdue exercises.
5. The condition of obtaining the pass of the laboratory is passing all the exercises according to the schedule.
6. Unjustified absences and / or failure in performing all exercises in accordance to the schedule results that a student cannot be assessed - in the protocols the entry "unclassified" will be placed.
7. All issues related to attendance, improving assessments or made up overdue exercises are closed on the last day of classes.
8. The instructions of the exercises are available on the website: <http://irm.am.szczecin.pl>
9. Rules and schedule of exercises are presented at the first classes and available on the announce board at the entrance to the laboratory and on the website <http://irm.am.szczecin.pl>

**Exercises' schedule of the radio navigation laboratory,  
Summer semester  
(I N semester 2)**

		Topic
<b>Week</b>	1	<b>Introductory classes</b> Laboratory regulations, health and safety, familiarization with "Admiralty List of Radio Signals"
	2	<b>Exercise 1 (part 1)</b> Procedure for starting and adjusting basic navigation systems receivers
	3	<b>Exercise 1 (part 2)</b> Procedure for starting and adjusting basic navigation systems receivers
	4	<b>Exercise 2</b> Presentation of information in the navigation systems receivers
	5	<b>Exercise 3</b> Monitoring of a correctness of navigation systems receivers' operation
	6	<b>Exercise 4</b> Methods of improving the accuracy of state vector parameters determined by the navigation system receivers
	7	<b>Exercise 5 (part 1)</b> The programming of the route and conducting the navigation
	8	<b>Exercise 5 (part 2)</b> The programming of the route and conducting the navigation
	9	<b>Practical Test of receivers' handling</b>
	10	<b>Exercise 6</b> Accuracy assessment of the JRC GPS NAVIGATOR receiver
	11	<b>Exercise 7</b> Accuracy assessment of the GPS MAP 2010C receiver
	12	<b>Exercise 8</b> Accuracy assessment of the MAGELLAN FX324 MAP COLOR receiver
	13	<b>Exercise 9</b> Testing the accuracy of GPS compass
	14	<b>Retaking a Practical Test (the second term)</b>
	15	<b>Obtaining a pass of the laboratory</b>

# The course of classes in the aspect of their assessment

<b>1</b> <b>(2h)</b>	Introductory classes		
<b>2 – 8</b> <b>(5 x 2h)</b> <b>Exercise 1-5</b> <b>according to the</b> <b>schedule</b>	<b>Theory</b>	<b>Reports</b>	<b>Practical Test</b>
	Max 3 assessments of exercise (1 term + 2 improvements) the possibility of correcting ends with the last consultation (office hours) before the Practical Test	Max 2 assessments, at the second negative assessment, a student has to repeat the exercise.	
<b>9. (2h)</b> <b>Practical Test of</b> <b>receivers' handling</b>	positively	positively + 5 report	1 term
		Lack	unsatisfactory
	Lack		unsatisfactory
<b>10 – 13</b> <b>(4 x 2h)</b> <b>Exercise 6-9</b> <b>according to the</b> <b>schedule</b>	The possibility to improve assessments of the theory from the exercises 1-5 (within 3 assessments)	4 reports Max 2 assessments , at the second negative assessment, a student has to repeat the exercise. Possibility to supplement overdue exercise reports 1-5	
<b>14. (2h)</b> <b>Retaking a</b> <b>Practical Test (the</b> <b>second term)</b>	positively	All reports from the 1 period and 3 from the 2 period positively + 4 <sup>th</sup> to be checked	2 term
	<b>Lack =&gt; Robber (positively)</b>	All reports from the 1 period and 3 from the 2 period positively + 4 <sup>th</sup> to be checked	2 term
		Lack => unclassified	
<b>15. Obtaining a</b> <b>pass of the</b> <b>laboratory</b>	<b>a pass for a course</b>		
	positively from exercises 1- 5	positively from exercises 1 - 9	Positive assessment at the first term
	<b>Retaking a test</b>		
	positively from exercises 1- 5	positively from exercises 1 - 9	Positive assessment at the second term
	<b>Unclassified</b>		
		There are no positively evaluated all 9 reports	