



**FREDERICK UNIVERSITY**

## Annex 1.1

---

### Revised Programme Structure

---

## ANNEX 1.1: Revised Programme Structure

**Table 1: Structure of the program of study (revised)**

The Program is based on the ECTS credit accumulation mode of study.

Students can be awarded the Master in “Sports and Exercise Medicine” upon completion of 95 ECTS.

These credits (ECTS) are allocated to “Compulsory” and “Elective Courses” as well as as shown in the table below.

Table 1: Structure of the programme of study

PROGRAMME REQUIREMENTS WITHOUT THESIS	ECTS
Compulsory courses	65
Elective courses	30
<b>Total ECTS</b>	<b>95</b>

PROGRAMME REQUIREMENTS WITH THESIS	ECTS
Compulsory courses	65
Thesis	30
<b>Total ECTS</b>	<b>95</b>

For the CIPs for the revised and new courses see **Annex 2**.

## TABLE 2: Compulsory and Elective Courses (REVISED)

**Table 2.1 Compulsory Courses:**

Students are expected to complete 65 ECTS compulsory courses, as shown below:

Num.	Course Title	Course Code	Number of Credits (ECTS)
1.	Applied Sport and Exercise Medicine: real-World Practice	DLSEM511	10
2.	Advanced concepts in Exercise physiology	DLSEM512	10
3.	Evidence-based biomedical research methods and statistics	DLSEM513	10
4.	Clinical reasoning and Rehabilitation Planning	DLSEM521	10
5.	Applied Biomechanics – Health and performance	DLSEM522	10
6.	New technologies in Sports and Exercise Medicine	DLSEM531	10
7.	Practical training	DLSEM541	5

**Table 2.2 Elective Courses**

Students are expected to complete 30 ECTS, by selecting courses from the list below:

Num	Course Title	Course Code	Number of Credits (ECTS)
1.	Clinical exercise testing and prescription	DLSEM501	10
2.	Advanced Sports Performance Enhancement	DLSEM502	10
3.	Clinical Exercise Physiology	DLSEM503	10
4.	Advanced Sport Injury rehabilitation	DLSEM504	10
5.	Physical Activity and Health: Public health, policy and behavioral Transformation	DLSEM505	10
6.	* Master Thesis I - Research planning and Proposal	DLSEM551	10
7.	* Master Thesis II - Research implementation	DLSEM552	20

Note: \* for research pathway only

**TABLE 3: Compulsory and Elective Courses**

**Table 3.1 Without Thesis (REVISED)**

Num.	Course Type	Course Name	Course Code	Periods per week	Period duration	Number weeks / academic semester	Total periods / academic semester	Number of Credits (ECTS)
<b>1st Semester</b>								
1.	Compulsory	Applied Sport and Exercise Medicine: real-World Practice	DLSEM511	N/A	N/A	13	N/A	10
2.	Compulsory	Advanced concepts in Exercise physiology	DLSEM512	N/A	N/A	13	N/A	10
3.	Compulsory	Evidence-based biomedical research methods and statistics	DLSEM513	N/A	N/A	13	N/A	10
<b>2nd Semester</b>								
4.	Compulsory	Clinical reasoning and Rehabilitation Planning	DLSEM521	N/A	N/A	13	N/A	10
5.	Compulsory	Applied Biomechanics – Health and performance	DLSEM522	N/A	N/A	13	N/A	10
6.	Elective	Selection of one (1) course from the table 2.2.		N/A	N/A	13	N/A	10
<b>3rd Semester</b>								
7.	Compulsory	New technologies in Sport and Exercise is Medicine	DLSEM531	N/A	N/A	13	N/A	10
8.	Elective	Selection of one (1) course from the table 2.2.		N/A	N/A	13	N/A	10
9.	Elective	Selection of one (1) course from the table 2.2.		N/A	N/A	13	N/A	10
<b>4th Semester</b>								
10.	Compulsory	Practical training	DLSEM541	N/A	N/A	2	N/A	5

*\*Not applicable (NA). Please refer to Annex 2 – Course Information Package (CIP), for the teaching methodology and course delivery for the distance learning programs of study*

**Table 3.2 With Thesis (REVISED)**

Num.	Course Type	Course Name	Course Code	Periods per week	Period duration	Number weeks / academic semester	Total periods / academic semester	Number of Credits (ECTS)
<b>1st Semester</b>								
1.	Compulsory	Applied Sport and Exercise Medicine: real-World Practice	DLSEM511	N/A	N/A	13	N/A	10
2.	Compulsory	Advanced concepts in Exercise physiology	DLSEM512	N/A	N/A	13	N/A	10
3.	Compulsory	Evidence-based biomedical research methods and statistics	DLSEM513	N/A	N/A	13	N/A	10
<b>2nd Semester</b>								
4.	Compulsory	Clinical reasoning and Rehabilitation Planning	DLSEM521	N/A	N/A	13	N/A	10
5.	Compulsory	Applied Biomechanics – Health and performance	DLSEM522	N/A	N/A	13	N/A	10
6.	Elective	Master Thesis I - Research planning and Proposal	DLSEM551	N/A	N/A	13	N/A	10
<b>3rd Semester</b>								
7.	Compulsory	New technologies in Sport and Exercise is Medicine	DLSEM531	N/A	N/A	13	N/A	10
8.	Elective	Master Thesis II - Research implementation	DLSEM552	N/A	N/A	13	N/A	20
<b>4th Semester</b>								
9.	Compulsory	Practical training	DLSEM541	N/A	N/A	2	N/A	5

*\*Not applicable (NA). Please refer to Annex 2 – Course Information Package (CIP), for the teaching methodology and course delivery for the distance learning programs of study*

**Table 4. Teaching staff, courses and teaching periods in the programme of study (REVISED)**

A / A	Indicative reaching Personnel	Discipline / Specialization	Teaching courses in the program of study under evaluation		
			Code	Course Title	Periods / Week
<b>1</b>	Dr. Anthi Xenofontos Katerina Paschalidou	Kinesiology Bioethics - Law	DLSEM511 (compulsory)	Applied Sport and Exercise Medicine: real-World Practice	3
<b>2</b>	Dr. Elena Papacosta Prof. Patikas Dimitris	Exercise Physiology Neuromuscular control	DLSEM512 (compulsory)	Advanced concepts in Exercise physiology	3
<b>3</b>	Dr. Panayiotis Paoullis Prof. Patikas Dimitris	Computational Statistics, Numerical Methods Neuromuscular control	DLSEM513 (compulsory)	Evidence-based research methods and statistics	3

A / A	Indicative reaching Personnel	Discipline / Specialization	Teaching courses in the program of study under evaluation		
			Code	Course Title	Periods / Week
4	Dr. Emmanouil Papadopoulos Dr. Christos Savva	Musculoskeletal Physiotherapy Musculoskeletal Physiotherapy	DLSEM521 (compulsory)	Clinical Reasoning and Rehabilitation Planning	3
5	Dr. Themis Tsatalas Dr. Anthi Xenofontos	Biomechanics Kinesiology	DLSEM 522 (compulsory)	Applied Biomechanics - Health and performance	3
6	Dr. Themis Tsatalas Dr. Haris Papadopoulos	Biomechanics Computer Science - Machine learning	DLSEM531 (compulsory)	New technologies in Sport and Exercise Medicine	3
7	Dr. Anthi Xenofontos Dr. Elena Papacosta Prof. Patikas Dimitris	Kinesiology Exercise Physiology Neuromuscular control	DLSEM541 (compulsory)	Practical Training	
8	Dr. Antonis Stavropoulos Dr. Anthi Xenofontos	Clinical Exercise Physiology Kinesiology	DLSEM501 (elective)	Clinical exercise testing and prescription	3
9	Dr. Elena Papacosta Dr. Eleni Bassa	Exercise Physiology Exercise for children and young individuals	DLSEM502 (elective)	Advanced Sports Performance Enhancement	3
10	Dr. Elena Papacosta Dr. Antonis Stavropoulos	Exercise Physiology Clinical Exercise Physiology	DLSEM503 (elective)	Clinical Exercise physiology	3

A / A	Indicative reaching Personnel	Discipline / Specialization	Teaching courses in the program of study under evaluation		
			Code	Course Title	Periods / Week
<b>11</b>	Dr. Emmanouil Papadopoulos Dr. Christos Savva	Musculoskeletal Physiotherapy Musculoskeletal Physiotherapy	DLSEM504 (elective)	Advanced Sport Injury rehabilitation	3
<b>12</b>	Dr. Charalambous Georgios Dr. Apostolia Dovoli	Health Policy and Bioethics Sport, Recreation and Sport Tourism Management	DLSEM505 (elective)	Physical Activity and Health: Public health, Policy and behavioral Transformation	3
<b>13</b>	Dr. Panayiotis Paoullis Prof. Patikas Demetris	Computational Statistics, Numerical Methods Neuromuscular Control	DLSEM551 (elective)	Master Thesis I – Research Proposal Implementation	3
<b>14</b>	All Academic Staff		DLSEM552 (elective)	Master Thesis II – Research Proposal Implementation	3



**Table 5. Elective Course details and content Overview for Clinical Exercise Science and Health, And Sports Performance Rehabilitation**

Code	Title	ECTS	Indicative Content Relevant to <u>Clinical Exercise Science and Health</u>
DLSEM501	Clinical exercise testing and prescription	10	The course equips students with advanced skills in assessing physical performance and prescribing exercise. Through comprehensive modules on pre-exercise health screening, cardiopulmonary testing, and chronic disease management, students learn to design effective exercise programs. The practical approach, including interactive activities and case studies, ensures they can apply theoretical knowledge to real-world scenarios, improving health outcomes for athletes and individuals with chronic conditions. This deepened knowledge base prepares students for professional roles in clinical and health settings.
DLSEM503	Clinical Exercise Physiology	10	The course equips students with advanced skills to understand the impact of exercise on chronic diseases. Through comprehensive modules on inflammation, immune response, pathophysiology, ECG analysis, and pharmacology, students gain robust insights into designing safe and effective exercise programs for individuals with chronic conditions. Students will apply theoretical knowledge to real-world scenarios, enhancing their ability to improve health outcomes for diverse populations.
DLSEM505	Physical Activity and Health: Public health, policy and behavioral Transformation	10	The course is providing a comprehensive understanding of the relationship between physical activity and public health. This course covers fundamental concepts related to physical activity, behavioral change, and health policies, enabling students to analyze how public health policies shape behavior and health outcomes. Through practical and theoretical modules, students develop strategies for promoting physical activity and addressing barriers to participation. This approach equips students with the skills needed to implement and advocate for public health policies that enhance physical activity and overall health in diverse populations.
Code	Title	ECTS	Indicative Content Relevant to and <u>Sports Performance and Rehabilitation</u>
DLSEM502	Advanced Sports	10	The course equips students with advanced skills in creating and executing training programs specifically for high-level athletes, considering age-related performance variations and addressing the

	Performance Enhancement		Female Athlete Triad. Additionally, students gain proficiency in nutritional strategies to boost physical performance, incorporating the latest research in sports nutrition. This method ensures students can translate theoretical knowledge into practical scenarios, improving their ability to enhance athletic performance. This enriched expertise prepares students for professional roles in sports performance and rehabilitation.
DLSEM504	Advanced Sport Injury rehabilitation	10	This course offers in-depth training on the rehabilitation of acute and chronic upper and lower limb sports injuries. Students develop advanced competencies managing both surgical and conservative treatments. Modules cover injury anatomy, epidemiology, pre- and post-operative rehabilitation, and evidence-based therapeutic interventions, enabling students to formulate and apply effective rehabilitation protocols. This method ensures students can convert theoretical knowledge into practical applications, enhancing their ability to facilitate recovery and ensure safe return to sports. This comprehensive expertise is via crafting personalized rehabilitation strategies, equipping students for professional roles in sports performance and rehabilitation.