

LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

| Module CodeB470B001AccreditedBranch of ScienceProgr.Registr. №.until | | | | | | | | | | | | Rei | newal | date |
|--|--|---|--|-----------------|--|---|--|---|--|--|--|--|--|------------------|
| IVI | odule Code | Brancl | n of Science | Prog | r. | Registr. №. | until | | | | | | | |
| Enti | tlement | | | | | | | | | | | | | |
| Spo | rts and Exercis | se Physio | logy | | | | | | | | | | | |
| Prer | equisites | | | | | | | | | | | | | |
| Cou | rse (module) L | Learning (| Dutcomes | | | | | | | | | | | |
| <u>№</u> . | Learning Out | tcomes | | ′ | Tea | ching / Learnin | g Methods | Asses | SSI | mer | nt I | Meth | ods | |
| 1 | Define the kr principles of exercise phys of profession to extrapolate subject comp | nowledge general a siology th al qualifi e them wh petencies | , theories and nd sports and aat form the ba cations, be ab nile developin | asis le g | Cas Dis Lab bas acti | e analysis (Case cussion, Formal ooratory classes, ed learning, Ref on, Seminar | e study), lecture, Problem- lection on | Direc work, exam notes presen | te , I in a nt | ed p Lab atic nd r atic | riv ora on, rep on, | ate la itory Labo ort, C Test | aborato pratory Dral | ory 7 |
| 2 | To be able to reasoned man public report discussions | express nner whe s, particip | thoughts in a n preparing pating in |] | Cas Dis | e analysis (Case cussion, Semina | e study), ar | Oral J | pr | ese | nta | tion, | Semi | nar |
| 3 | To be able to interpret the diagnostics o systems, to a powers of ath | apply, and methods of the action ssess the nletes | nalyze and of functional vity of the boo functional | ly's | Cas Dis clas | e analysis (Case cussion, Labora sses, Seminar | e study), tory | Direc work, exam notes preser | te , I in a nt | ed p Lab atic nd i atic | riv ora on, rep on, | ate la itory Labo ort, C Sem | aborate oratory Dral inar, T | ory / Test |
| 4 | Be able to stu independentl | udy and v y and tak | vork e responsibilit | y S | Cas Dis clas Sen | e analysis (Case cussion, Labora sses, Literature a ninar | e study), tory analysis, | Backg Direc work, exam notes presen | gr te , I in a nt | our d p Lab atic nd r atic | readi ate la tory Labo ort, (Sem | ng, aborate oratory Oral inar, T | ory / Fest | |
| 5 | Be able to fir contemporary from fundam and practice | nd and un y scientif lental and | derstand ic ideas arising applied scien | g] ce ; | Cas Dis Lab ana lear acti | e analysis (Case cussion, Formal ooratory classes, lysis, Problem-t ning, Reflectior on, Seminar | e study), lecture, Literature based n on | Direc work, exam notes presen actior | rte , I in a nt | ed p Lab atic nd r atic Ser | riv ora on, rep on, nir | ate la itory Labo ort, (Refle nar, T | aborate oratory Oral ection Test | ory / on |
| 6 | Be able to cre learn from th fundamental creatively ap activities | eatively a le achieve and appli ply them | nd constantly ments of mod ed science and in professiona | lern d ll | Cas Dis Lab ana lear acti | e analysis (Case cussion, Formal oratory classes, lysis, Problem-t ning, Reflection on, Seminar | Direc work, exam notes presen actior | rte , I in a nt | ed p Lab atic nd r atic Ser | riv ora on, rep on, nir | ate la itory Labo ort, (Refle nar, T | aboratory Dratory Dral ection Yest | ory / on | |
| 7 | Understand t of physical a | he biome ctivity | dical mechani | sms | Cas Dis Lab ana lear acti | e analysis (Case cussion, Formal poratory classes, lysis, Problem-t ning, Reflection on, Seminar | Directed private laboratory work, Laboratory examination, Laboratory notes and report, Oral presentation, Reflection on action, Seminar, Test | | | | | | | |

| Nº. | Learning Outcomes | Teaching / Learning Methods | Assessment Methods |
|-----|---|--------------------------------|-----------------------------|
| | | Case analysis (Case study), | Directed private laboratory |
| | | Discussion, Formal lecture, | work, Laboratory |
| 0 | Define and explain the functions of the | Laboratory classes, Literature | examination, Laboratory |
| 0 | human body | analysis, Problem-based | notes and report, Oral |
| | | learning, Reflection on | presentation, Reflection on |
| | | action, Seminar | action, Seminar, Test |
| | | Case analysis (Case study), | Directed private laboratory |
| | Define and explain the processes that | Discussion, Formal lecture, | work, Laboratory |
| 0 | Define and explain the processes that | Laboratory classes, Literature | examination, Laboratory |
| 9 | different physical exercises | analysis, Problem-based | notes and report, Oral |
| | different physical exercises | learning, Reflection on | presentation, Reflection on |
| | | action, Seminar | action, Seminar, Test |

Main aim - to familiarize with the structural and functional changes of the human body due to the short-term and long-term adaptations to exercise.

Summary

Acute responses to physical activity. Anticipation, on-transition, fatigue, recovery. Organism adaptation under influence of endurance and strength developing training loads. The physiological basis of endurance and strength training. Testing of aerobic and anaerobic capacity. Long-term adaptation of the human organism during chronic physical activity. Adaptation and performance under different environmental conditions. Age and sex influence on the adaptation to training loads.

Level of module

| Level o | of programme | Subject group (up don the regulation of the gree) |
|---------------|-------------------------|---|
| Cycle | Туре | Subject group (under the regulation of the area) |
| First | Bachelor | Mokslo srities pagrindų |
| Group under t | financial classificatio | n |

5.Fizinių, biomedicinos, technologijos mokslų studijos (išskyrus nurodytąsias 6, 7, 11, 13, 14 ir 16 punktuose) Syllabus

| Nº. | Sections and themes | Responsible lecturer |
|-----|--|----------------------|
| 1. | CNS physiology. Motor system | |
| 2. | Physiology of sensory systems | |
| 3. | Skeletal muscle physiology | |
| 4. | Respiratory physiology at rest and during exercise | |
| 5. | Physiology of cardiovascular system at rest and during exercise | |
| 6. | Endocrine system and adaptations to exercise | |
| 7. | Physiology of digestive system and functional changes during exercise | |
| 8. | Renal function at rest and during exercise | |
| 9. | Regulation of water and electrolytes metabolism at rest and during exercise | |
| 10. | General principles of acute responses to exercise | |
| 11. | Physiology of long-term adaptation to exercise | |
| 12. | Physiology of aerobic and anaerobic capacity and their training | |
| 13. | Physiology of strength, speed, flexibility and their training | |
| 14. | Adaptation of the organism and physical performance in various environmental conditions | |
| 15. | Women's physical work capacity and adaptation to physical loads | |
| 16. | Peculiarities of adaptation to physical activity by people of different ages | |
| 17. | Influence of genetic science achievements on the development of sports and exercise physiology | |

Evaluation procedure of knowledge and abilities:

Ten grade criterion scale and summative evaluation system are applied. The semester's individual work tasks are evaluated by grades; the final grade is given during the examination session while multiplying particular grades by the lever coefficient and summing up the products.

| Ref | erences | | | | | |
|------------|---|---|---|--|---|---|
| <u>№</u> . | | Title | Editi Lithu Sp Univ libu Pressma rk | on in aanian orts ersity cary Number of exempla rs | In Lithuani an Sports Universi ty bookstor e | Number of ex. in the methodic al cabinet of the depart. |
| 1. | http://www.lsu.lt | / Emokymas | | | No | |
| 2. | Lt sistema, https://accounts.k uct=adinstrument | curacloud.com/user/login?instance=88287b84∏ | | | No | |
| Add | litional literature | | | | | |
| №. | Title | | | | | |
| 1. | Kenny W.L Wil | more J.H., Costill D.L.,. Physiology of sport and exerc | cise. Hur | nan kine | tics, 202 | l. |
| Coc | ordinating lecturer | | | | | |
| | Position | Degree, surname, name | | edule №. | | |
| | | | | | 54 | |
| Sub | division | | | | | |
| | | Entitlement | | | | Code |
| | | а | | | | 2006 |

Study module teaching form №. 1

| | | | | Structu | ıre | | | Tetal | |
|-----------|---|---|---|---|---|--|--|--|--|
| M | ode of studie | s | Theory | Seminars | La Wo | ıb rks v | Ind. work | hours | Credits |
| | D | | 31 | 6 | 23 | 8 | 195 | 260 | 10 |
| truction: | | | | | | | | | |
| Engli | sh E | Russia | n R | French | F | Ge | erman | G | Other Oth. |
| ours | | | | | | | | | |
| | Academic h | ours | | No. of Thor | 200 | | 1 | Academic ho | ours |
| Theory | Seminars | Lab | Works | | of Themes | | ory | Seminars | Lab Works |
| 1 | 0 | | 0 | 10. | | 1 | | 1 | 0 |
| 2 | 0 | | 0 | 11. | | 6 | | 0 | 8 |
| 1 | 0 | | 0 | 12. | | 1 | | 0 | 0 |
| 2 | 0 | | 4 | 13. | | 3 | | 0 | 4 |
| 1 | 0 | | 0 | 14. | | 3 | | 0 | 4 |
| 1 | 0 | | 4 | 15. | | 3 | | 1 | 0 |
| 1 | 0 | | 4 | 16. | | 1 | | 1 | 0 |
| 8. 1 1 | | | 0 | 17. | | 1 | | 1 | 0 |
| 1 | 1 | | 0 | 18. | | 1 | | 0 | 0 |
| | | | | Te | otal: | 31 | L | 6 | 28 |
| | Montraction: truction: Engli ours Theory 1 2 1 2 1 1 1 1 1 1 1 | Mode of studieDtruction:EnglishEoursAcademic heTheorySeminars10201020101010101111 | Mode of studiesDEnglish E RussiaAcademic hoursTheory Seminars Lab1020102010101010101010101010101010 | $\begin{tabular}{ c c c c } \hline Mode of studies & $$Theory$ \\ \hline $$Theory$ \\ \hline $$Theory$ \\ \hline $$Semiars$ $$Lab Works$ \\ \hline $$1 0 0 0 \\ \hline $$2 0 0 0 \\ \hline $$1 0 0 0 \\ \hline $$2 0 0 0 \\ \hline $$1 0 0 0 \\ \hline $$2 0 0 0 \\ \hline $$1 0 0 0 \\ \hline $$2 0 0 0 \\ \hline $$1 0 0 0 \\ \hline $$2 0 0 0 \\ \hline $$1 0 0 \\ \hline $$1 0 0 0 \\ \hline $$1 0 0$ | $\begin{tabular}{ c c c c c } \hline Mode of studies & \hline Structure & \hline Theory & Seminars & \\ \hline Mode of studies & \hline Theory & Seminars & 31 & 6 & \\ \hline Theory & \hline Seminars & R & French & \\ \hline Theory & Seminars & Lab Works & \\ \hline Theory & Seminars & Lab Works & \\ \hline Theory & Seminars & Lab Works & \\ \hline 1 & 0 & 0 & 10. & \\ \hline 2 & 0 & 0 & 11. & \\ \hline 1 & 0 & 0 & 12. & \\ \hline 2 & 0 & 0 & 11. & \\ \hline 1 & 0 & 0 & 12. & \\ \hline 2 & 0 & 0 & 11. & \\ \hline 1 & 0 & 0 & 12. & \\ \hline 2 & 0 & 0 & 11. & \\ \hline 1 & 0 & 0 & 12. & \\ \hline 1 & 0 & 0 & 14. & \\ \hline 1 & 0 & 0 & 14. & \\ \hline 1 & 0 & 17. & \\ \hline 1 & 1 & 0 & 18. & \\ \hline \end{array}$ | $\begin{tabular}{ c c c c } \hline Mode of studies & \hline Ileony & Seminars & La Wo \\ \hline \ \ \ \ \ \ \ \ \ \ \ \ \$ | $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$ | $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$ | $\begin{tabular}{ c c c c c } \hline \begin{tabular}{ c c c c } \hline \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \hline \ \begin{tabular}{ c c } \hline \hline \ \begin{tabular}{ c c } \hline \hline \begin{tabular}{ c c } \hline \hline \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $ |

Schedule of individual work tasks and their influence on final grade

| | №. of | Total | Influence on | Week of presentment of task (*) and reporting (0) | | | | | | | | | | | | | | porting |
|----------------------------------|---------|-------|--------------|---|----|---|---|----|---|---|----|----|----|----|----|----|----|---------|
| | synabus | nours | grade, % | 12 | 23 | 4 | 5 | 67 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-20 |
| Test | 2-17 | 20 | 15 | * | | | 0 | | 0 | | | | 0 | | | | | |
| Directed private laboratory work | 2-14 | 22 | 5 | * | | | | | | | | | | 0 | | | | |
| Exam | 2-17 | 40 | 35 | * | | | | | | | | | | | | | | 0 |

| | №. of | Total | Influence on | W | 'ee | k (| of | pro | ese | ent | me | nt o (| of ta o) | ısk | (*) | and | l rej | porting |
|-----------------------------|---------|-------|--------------|---|-----|-----|----|-----|-----|-----|----|-----------|-------------|-----|-----|-----|-------|---------|
| | synabus | nours | grade, % | 1 | 23 | 4 | 5 | 67 | 78 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-20 |
| Laboratory notes and report | 2-14 | 40 | 25 | | * | | | | 0 | | | | | | 0 | | | |
| Seminar | 2-17 | 33 | 10 | | | | | | | | | | | * | | | 0 | |
| Oral presentation | 2-17 | 40 | 10 | | | | | | | | | | | * | | | 0 | |
| Total: | - | 195 | 100 | | | | | | | | | | | | | | | |

Study module teaching form №. 2

| | | | | | Str | uctu | ıre | : | | | | | | т | . 1 | | | | |
|-----------------------------|------------|--------------|-----------|-----------|-----------|------|-----|-----------|----------|-----|------------|----------|------|-------------|------|-----|-----|-------|---------|
| Semester | М | ode of studi | es | Theory | Semina | ars | v | La Voi | b ·ks | ١ | Ind voi | l. :k | | ho | otai | | | Cre | dits |
| A S | | Ν | | 31 | 6 | | | 28 | } | | 19: | 5 | | 2 | 60 | | | 1 | 0 |
| Languages of ins | truction: | | | | | | | | | | | | | | | | | | |
| Lithuanian L | Engl | ish E | Russia | n R | Frenc | ch | F | | | Ge | erm | nan | 1 | G | | | Oth | er | Oth. |
| Plan of in-class h | ours | | | | | | | | | | | | | | | | | | |
| No. of Themes | | Academic | hours | | No of T | her | ne | c - | | | | 1 | Aca | ıdeı | nic | hou | urs | | |
| Nº. Of Themes | Theory | Seminars | Lab | Works | JN2. 01 1 | nen | ne | 5 | Т | heo | ory | | Se | mi | nars | 3 | La | b W | /orks |
| 1. | 1 | 0 | | 0 | 10 |). | | | | 1 | | | | 1 | | | | 0 | |
| 2. | 2 | 0 | | 0 | 11 | • | | | | 6 | | | | 0 | | | | 8 | |
| 3. | 1 | 0 | | 0 | 12 | 2. | | | | 1 | | | | 0 | | | | 0 | |
| 4. | 2 | 0 | | 4 | 13 | i. | | | 3 | | | | 0 | | | | 4 | | |
| 5. | 1 | 0 | | 0 | 14. | | | | | 3 | | | | 0 | | | | 4 | |
| 6. | 1 | 0 | | 4 | 15. | | | | | 3 | | | 1 | | | | 0 | | |
| 7. 1 | | 0 | | 4 | 16 | | | | 1 | | | 1 | | | | | | | |
| 8. | 1 | 1 | | 0 | 17 | '. | | | | 1 | | | 1 | | | | | 0 | |
| 9. | 1 | 1 | | 0 | 18. | | | | 1 | | | | 0 | | | | 0 | | |
| | | | | L | | To | ota | 1: | | 31 | - | | | 6 | | | | 28 | 3 |
| Schedule of indiv | vidual wor | k tasks and | their inf | luence on | final gra | de | | | | | | | | | | | | | |
| | | №. of | Total | Influer | nce on | We | eek | c of | pr | ese | ntr | ne | nt c | of ta o) | ısk | (*) | and | l rej | porting |
| | | syllabus | hours | grade | e, % | 12 | 23 | 45 | 6 | 78 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-20 |
| Directed private la work | aboratory | 2-14 | 22 | 5 | i | | | | * * | * 0 | | | | | | | | | |
| Exam | | 2-17 | 40 | 35 | 5 | | | | * | | | | | | | | | | 0 |
| Laboratory notes a report | 2-14 | 40 | 25 | 5 | | | | * | | | | | | | | | | 0 | |
| Seminar | | 2-17 | 33 | 1(| 0 | | | | ; | × | | | | | | | | | 0 |
| Test | | 2-17 | 20 | 15 | 5 | | | | ; | k | | | | | | | | | 0 |
| Oral presentation | | 2-17 | 40 | 1(| 0 0 | | | | ; | k | | | | | | | | | 0 |
| | Total: | - | 195 | 10 | 00 | | | | | | | | | | | | | | |

Study module teaching form №. 3

| | | | | | | | Structu | ure | | | т | otol | | |
|-----------|-----------|----------|-------|--------|-----|-----|----------|--------|-------------|--------------|---|------|-------|------|
| Seme | ester | Mode | of st | udies | The | ory | Seminars | L W | .ab orks | Ind. work | h | otal | Cre | dits |
| Α | S | D | | | 31 | | 6 | 28 | | 195 | 2 | 260 | 1 | 0 |
| Language | s of inst | ruction: | | | | | | | | | | | | |
| Lithuania | an L | English | Е | Russia | n R | | French | F | (| German | G | | Other | Oth. |

Plan of in-class hours

| Ma of Thomas | | Academic h | ours | Mo of Thomas | | Academic h | ours |
|---------------|--------|------------|-----------|----------------|--------|------------|-----------|
| Nº. 01 Themes | Theory | Seminars | Lab Works | Jvº. of Themes | Theory | Seminars | Lab Works |
| 1. | 1 | 0 | 0 | 10. | 1 | 1 | 0 |
| 2. | 2 | 0 | 0 | 11. | 6 | 0 | 8 |
| 3. | 1 | 0 | 0 | 12. | 1 | 0 | 0 |
| 4. | 2 | 0 | 4 | 13. | 3 | 0 | 4 |
| 5. | 1 | 0 | 0 | 14. | 3 | 0 | 4 |
| 6. | 1 | 0 | 4 | 15. | 3 | 1 | 0 |
| 7. | 1 | 0 | 4 | 16. | 1 | 1 | 0 |
| 8. | 1 | 1 | 1 0 17. | | 1 | 1 | 0 |
| 9. | 1 | 1 | 0 | 18. | 1 | 0 | 0 |
| | | | | Total: | 31 | 6 | 28 |

Schedule of individual work tasks and their influence on final grade

| | №. of | M_{2} . ofTotalInfluence onWsyllabushoursgrade, %1 | | | | | n Week of presentment of task (*) and reporting (0) | | | | | | | | | | | | | |
|----------------------------------|----------|--|----------|---|----|---|--|----|----|------|----|----|----|----|----|----|-------|--|--|--|
| | syllabus | hours | grade, % | 1 | 23 | 4 | 56 | 57 | 89 | 0 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-20 | | | |
| Test | 2-17 | 20 | 15 | * | | | 0 | | (|) | | 0 | | | | | | | | |
| Directed private laboratory work | 2-14 | 22 | 5 | * | | | | | | | | 0 | | | | | | | | |
| Laboratory notes and report | 2-14 | 40 | 25 | * | | | | | | | | | 0 | | | | | | | |
| Exam | 2-17 | 40 | 35 | * | | | | | | | | | | | | | 0 | | | |
| Seminar | 2-17 | 33 | 10 | | | | | | | | | * | | | 0 | | | | | |
| Oral presentation | 2-17 | 40 | 10 | | | | | | | | | * | | | 0 | | | | | |
| Total: | - | 195 | 100 | | | | | | | | | | | | | | | | | |

Study module teaching form №. 4

| | | | | Str | uctu | т | a 4 a 1 | | | | | | | |
|---------------------------|--------|-----------|---------|---------|----------------|------------|-----------|--------------|----------------|------|---------|-----------|----|--|
| Semester | M | ode of st | Theor | y Semin | Seminars | | ıb rks | Ind. work | hours | | Credits | | | |
| A S | A S N | | | 31 | 6 | | 28 | | 195 | 2 | 60 | 1 | 10 | |
| Languages of instruction: | | | | | | | | | | | | | | |
| Lithuanian L | Engli | ish E | Russia | n R | Fren | French F G | | German | G | | Other | Oth. | | |
| Plan of in-class hours | | | | | | | | | | | | | | |
| No of Thomas | | Academ | | Ma of T | No. of Thomas | | | 1 | Academic hours | | | | | |
| Jv₂. Of Themes | Theory | Semina | ars Lab | Works | Jvº. Of Themes | | | Th | eory | Semi | nars | Lab Works | | |
| 1. | 1 | 0 | | 0 | 10 | 10. | | | 1 | 1 | | 0 | | |
| 2. | 2 | 0 | | 0 | 1 | 11. | | | 6 | 0 | | 8 | | |
| 3. | 1 | 0 | | 0 | 12 | 12. | | | 1 | 0 | | 0 | | |
| 4. | 2 | 0 | | 4 | 13 | 13. | | 3 | | 0 | | 4 | | |
| 5. | 1 | 0 | | 0 | 14 | 14. | | 3 | | 0 | | 4 | | |
| 6. | 1 | 0 | | 4 | 15 | 15. | | 3 | | 1 | | 0 | | |
| 7. | 1 | 0 | | 4 | 10 | 16. | | 1 | | 1 | | 0 | | |
| 8. | 1 | 1 | | 0 | 17 | 17. | | | 1 | 1 | | 0 | | |
| 9. | 1 | 1 | | 0 | 18 | 18. | | 1 | | 0 | | 0 | | |
| | | | | | | Total: | | | | 6 | | 28 | 8 | |

Schedule of individual work tasks and their influence on final grade

| | №. of | Total hours | Influence on grade, % | Week of presentment of task (*) and reporting (0) | | | | | | | | | | | | | | |
|-------------------------------------|----------|----------------|-----------------------|--|----|---|----|-----|---|---|----|----|----|----|----|----|----|-------|
| | syllabus | | | 12 | 23 | 4 | 56 | 57 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17-20 |
| Directed private laboratory work | 2-14 | 22 | 5 | Π | | | 7 | * C |) | | | | | | | | | |
| Exam | 2-17 | 40 | 35 | | | | * | k | | | | | | | | | | 0 |
| Laboratory notes and report | 2-14 | 40 | 25 | | | | * | k | | | | | | | | | | 0 |
| Test | 2-17 | 20 | 15 | П | | | × | k | | | | | | | | | | 0 |
| Seminar | 2-17 | 33 | 10 | | | | | * | < | | | | | | | | | 0 |
| Oral presentation | 2-17 | 40 | 10 | | | | | * | : | | | | | | | | | 0 |
| Total: | - | 195 | 100 | | | | | | | | | | | | | | | |