

MUĞLA SITKI KOÇMAN UNIVERSITY FACULTY of MEDICINE PHASE 2 ENGLISH MEDICINE PROGRAM

2023/2024 Academic Year

Committee 5 GUIDEBOOK

Prepared By:

PHASE 2 COORDINATOR AND VICE-COORDINATORS

PREFACE

Dear Students,

Welcome to the phase 2 committee 5 which is an important part of your education. This guide describes what you will learn and perform during your committee program, the rules you must follow in the committee, and the working conditions. We wish you all success with the belief that this guide will guide you through the committee.

Phase 2 Coordinatorship

GENERAL INFORMATION on COURSE

| GENERAL INFORMATION | | |
|------------------------|---|--|
| Year | Phase 2- Committee 5 | |
| Course Title | Urogenital And Endocrine System (5th) Committee | |
| Level of Course | First Cycle | |
| Required/Elective | Required | |
| Language | English | |
| | Committee Courses | |
| | MED 2001 Medical Biochemistry | |
| | MED 2004 Anatomy | |
| | MED 2003 Histology and Embryology | |
| | MED 2006 Physiology | |
| | MED 2007 Medical Microbiology | |
| | MED 2010 Special Study Module | |
| Course Code(s) | MED 2009 Professional Skills | |
| | Other Courses | |
| | YDB 2801 English III | |
| | YDB 2802 English IV | |
| | YDB 2813 German III | |
| | YDB 2814 German IV | |
| | YDB 2815 French III | |
| | YDB 2816 French IV | |
| Duration of the | 7 weeks | |
| course | / WCCRO | |
| ECTS: | 10 | |

TEACHING STAFF

| Phase Coordinator | Asist. Prof. Dr. Hasan Tetiker | |
|------------------------------------|--|--|
| Vice -Coordinators | Assoc. Prof. Dr. Turan Demircan | |
| | Asist. Prof. Dr. Egemen Kaya | |
| | Asist. Prof. Dr. Şehbal Yeşilbaş | |
| | M.D. Zeynep Nisa Karakoyun | |
| Head of the Committee | Asist. Prof. Dr. Alper Aksözek | |
| Teaching staff of | Department of Anatomy | |
| the Committee | 1. Prof. Dr. Mehmet İlkay Koşar | |
| Program | 2. Assist. Prof. Dr. Hasan Tetiker | |
| | 3. Assist. Prof. Dr. Ceren Uğuz Gençer | |
| | 4. M.D. Zeynep Nisa Karakoyun | |
| (Disciplines and | 5. Mustafa Deniz Yörük, Phd | |
| special interests | | |
| should be noted) | Department of Physiology | |
| | 1. Assist. Prof. Dr. Egemen Kaya | |
| | Department of Histology and Embryology | |
| | 1. Prof. Dr. Feral Öztürk | |
| | 2. Assoc. Prof. Dr. Hülya Elbe | |
| | 3. Assoc. Prof. Dr. Gürkan Yiğittürk | |
| Department of Medical Biochemistry | | |
| | 1. Prof. Dr. İsmail Çetin Öztürk | |
| | 2. Assoc. Prof. Dr. Ercan Saruhan | |
| | Department of Medical Microbiology | |
| | 1. Assist. Prof. Dr. Alper Aksözek | |
| | 2. Assist. Prof. Dr. Burak Ekrem Çitil | |
| | | |

TEACHING METHODS-TECHNIQUES

| Theoretical | |
|--------------------|---|
| Classroom Lesson | + |
| Practice | |
| Laboratory Studies | + |
| Structured Free | + |
| Study Hours | |
| Special Study | + |
| Module | |
| Professional | + |
| Skills | |

PHYSICAL SPACES

| Classrooms and Study | 1. | Faculty of Medicine Classroom-II |
|----------------------|----|----------------------------------|
| Areas | 2. | Anatomy Laboratory |
| | 3. | Microbiology Laboratory |
| | 4. | Microscopy Laboratory |
| | 5. | Seminar Halls |

RELATED LEGISLATION

http://www.tip.mu.edu.tr/tr/ilgili-mevzuat-6641

COMMITTEE CLASS HOURS DISTRIBUTION

| DISTRIBUTION OF THE COMMITTEE BOARD THEORETICAL AND PRACTICE COURSE HOURS | | | |
|---|-------------|----------|-------|
| Course Lessons | Theoretical | Practice | Total |
| Anatomy | 13 | 5 | 18 |
| Medical Biochemistry | 18 | - | 18 |
| Physiology | 20 | - | 20 |
| Histology-Embryology | 16 | 12 | 28 |
| Medical Microbiology | 20 | 5 | 25 |
| Professional Skills | - | 16 | 16 |
| Special Study Module | - | 14 | 14 |
| Board Total | 87 | 52 | 139 |
| English | 15 | - | 15 |
| General Total | 102 | 52 | 154 |

AIM(S) of the COMMITTEE

In this committee, it is aimed that the students comprehend the embryonic development, anatomical and histological structure of the excretory, reproductive and endocrine systems. In this committee, it is aimed that the students comprehend the structure, synthesis and action mechanisms of hormones. In this committee, it is aimed that the students explain the functions of the excretory, reproductive and endocrine systems physiologically, interpret their clinical connections, and comprehend the functions of the endocrine organs involved in the regulation of growth-development and reproduction. In this committee, it is aimed that the students will be able to learn, compare and interpret the classifications, structural features, pathogenesis, diseases caused, prevention and treatment of fungi and parasites that have medical importance. 5. In this committee, it is aimed that students gain the skills of intramuscular, subcutaneous and intradermal injections, vascular access, blood collection, serum insertion, intravenous injection, wound care and suturing, basic life support in adults, intubation and recovery positioning. In this committee, it is aimed to strengthen the basic competencies of the students in the fields of "Showing a Scientific and Analytical Approach" and "Lifelong Learning",

which are two main competence areas related to individual and professional

development.

OBJECTIVE(S) of the COMMITTEE

| 1. | To be able to describe the anatomy, function, vessels and innervation of endocrine |
|-----|---|
| | organs and to be able to show these structures in the laboratory. |
| 2. | To be able to describe the anatomy, function, vessels and innervation of the bladder, |
| | kidney and adrenal gland and to show these structures in the laboratory. |
| 3. | To be able to explain the anatomy of the ureter and urethra, its strictures, crossings, |
| | neighborhoods, vascularization and innervation and show it in the laboratory. |
| 4. | To be able to explain the anatomical structure of female and male internal and |
| | external genital organs and to be able to show these structures in the laboratory. |
| 5. | To be able to identify pelvic arteries, veins and lymphatics and to be able to |
| | demonstrate these structures in the laboratory |
| 6. | To be able to identify the muscles, fascia, vessels and nerves of the perineum and to |
| | be able to demonstrate these structures in the laboratory |
| 7. | To be able to count the structure of the nephron, the histological layers and cells of |
| | the organs that make up the urinary system. |
| 8. | To be able to fully enumerate the structures in which the urinary system organs |
| | develop. |
| 9. | To be able to fully explain all organs, histological layers, cells and functions of the |
| | male and female reproductive system. |
| 10. | To be able to fully enumerate the structures in which male and female reproductive |
| | system organs develop, to be able to fully explain the organs of the endocrine system, |
| | histological layers of organs, cells and their functions. |
| 11. | To be able to fully enumerate the structures in which the endocrine system organs |
| | develop. |
| 12. | To be able to explain the hemodynamic properties of renal circulation and the |
| | functional importance of these properties. |
| 13. | To be able to list the mechanisms of filtration of fluids in the kidney and the factors |
| | affecting it. |
| 14. | To be able to explain the reabsorption and secretion mechanisms and the formation of |
| | urine along the renal tubules. |
| 15. | To be able to explain and interpret the functional mechanisms of micturition. |
| L | l . |

| To be able to explain the physiopathology of acidosis and alkalosis. |
|---|
| To be able to explain the general and structural properties, synthesis and metabolism, |
| mechanism of action and place of action of hormones. |
| To be able to interpret the interactions of hormones with each other and the control of |
| their secretion. |
| To be able to explain the functions, periods and tissues of hormones that are effective |
| on growth and development. |
| To be able to explain the functions of hormones involved in the regulation of |
| metabolism and to be able to explain the metabolic steps in which they are effective. |
| To be able to count the functions of hormones that function in the regulation of body |
| fluid-electrolyte and ion balance. |
| To be able to explain the effects of hormones that contribute to the adaptation of the |
| organism to various stress situations. |
| To be able to interpret the mechanisms of regulation of reproductive function in men |
| and women by explaining the hormonal changes that occur during the process of |
| gaining reproductive function and the results of these changes. |
| To be able to explain the causes of hormonal and systemic changes that occur during |
| pregnancy, to be able to explain the mechanisms that contribute to the birth and |
| lactation. |
| To be able to explain the biochemical properties and signaling mechanisms of |
| hormones. |
| To be able to explain the general and structural features, synthesis and metabolism, |
| mechanism of action and place of action of adrenal cortex and adrenal medulla |
| hormones, sex gland hormones, calcium metabolism regulating hormones, pituitary |
| and hypothalamic hormones, pancreatic hormones, gastrointestinal hormones and |
| thyroid hormones, and interpret their clinical situations. |
| To be able to explain the properties of kidney tissue biochemistry, to count function |
| tests and to explain the purpose of use. |
| To be able to classify medicinally important mushrooms and describe their structural |
| features. |
| To be able to explain, compare and interpret the pathogenesis, diseases caused, |
| prevention and treatment of fungi of medical importance. |
| To be able to explain basic information about antimycotic drugs. |
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| 31. | To be able to explain the classification and structural features of parasites of medical |
|-----|--|
| | importance. |
| 32. | To be able to explain, compare and interpret the pathogenesis, diseases caused, |
| | prevention and treatment of parasites of medical importance. |
| 33. | To be able to describe basic information about antiparasitic drugs |
| 34. | To be able to count the steps of intramuscular, subcutaneous and intradermal |
| | injection applications, respectively, and to be able to apply them on the model. |
| 35. | To be able to count the steps of vascular access, blood collection, serum insertion and |
| | intravenous injection applications, respectively, and to be able to apply them on the |
| | model. |
| 36. | To be able to count the steps of wound care and suturing application, respectively, |
| | and to be able to apply them on the model. |
| 37. | To be able to count the steps of basic life support, intubation and recovery position in |
| | adults, respectively, and to be able to apply them on the model. |
| 38. | To be able to compile scientific data, summarize with tables and graphs, analyze |
| | scientific data with appropriate methods and to be able to interpret the results, which |
| | are included in Basic Medicine Practices. |
| 39. | To be able to plan a research using scientific principles and methods |
| 40. | To be able to access current literature information and read it with a critical eye, to be |
| | able to apply the principles of evidence-based medicine in clinical decision making |
| | process. |
| 41. | To be able to interpret the health level of the service area using health level indicators |
| 42. | To be able to work within the scope of learner-centered practices, communication, |
| | time management, questioning perspective, to be able to focus on different interests |
| | and getting to know the target area for career choice. |
| 43. | To be able to demonstrate effective communication and presentation skills by |
| | working more closely in small groups within teamwork |

INTENDED LEARNING OUTCOME(S)

| 1. | Can describe the anatomy, function, vessels and innervation of endocrine organs and |
|-----|---|
| | can show these structures in the laboratory. |
| 2. | Can describe the anatomy, function, vessels and innervation of the bladder, kidney and |
| | adrenal gland and to show these structures in the laboratory. |
| 3. | Can explain the anatomy of the ureter and urethra, its strictures, crossings, |
| | neighborhoods, vascularization and innervation and show it in the laboratory. |
| 4. | Can explain the anatomical structure of female and male internal and external genital |
| | organs and can show these structures in the laboratory. |
| 5. | Can identify pelvic arteries, veins and lymphatics and can demonstrate these |
| | structures in the laboratory |
| 6. | Can identify the muscles, fascia, vessels and nerves of the perineum and can |
| | demonstrate these structures in the laboratory |
| 7. | Can count the structure of the nephron, the histological layers and cells of the organs |
| | that make up the urinary system. |
| 8. | Can fully enumerate the structures in which the urinary system organs develop. |
| 9. | Can fully explain all organs, histological layers, cells and functions of the male and |
| | female reproductive system. |
| 10. | Can fully enumerate the structures in which male and female reproductive system |
| | organs develop, can fully explain the organs of the endocrine system, histological |
| | layers of organs, cells and their functions. |
| 11. | Can fully enumerate the structures in which the endocrine system organs develop. |
| 12. | Can explain the hemodynamic properties of renal circulation and the functional |
| | importance of these properties. |
| 13. | Can list the mechanisms of filtration of fluids in the kidney and the factors affecting it. |
| 14. | Can explain the reabsorption and secretion mechanisms and the formation of urine |
| | |

| | along the renal tubules. |
|-----|--|
| 15. | Can explain and interpret the functional mechanisms of micturition. |
| 16. | Can explain the physiopathology of acidosis and alkalosis. |
| 17. | Can explain the general and structural properties, synthesis and metabolism, |
| | mechanism of action and place of action of hormones. |
| 18. | Can interpret the interactions of hormones with each other and the control of their |
| | secretion. |
| 19. | Can explain the functions, periods and tissues of hormones that are effective on growth |
| | and development. |
| 20. | Can explain the functions of hormones involved in the regulation of metabolism and |
| | can explain the metabolic steps in which they are effective. |
| 21. | Can count the functions of hormones that function in the regulation of body fluid- |
| | electrolyte and ion balance. |
| 22. | Can explain the effects of hormones that contribute to the adaptation of the organism |
| | to various stress situations. |
| 23. | Can interpret the mechanisms of regulation of reproductive function in men and |
| | women by explaining the hormonal changes that occur during the process of gaining |
| | reproductive function and the results of these changes. |
| 24. | Can explain the causes of hormonal and systemic changes that occur during |
| | pregnancy, can explain the mechanisms that contribute to the birth and lactation. |
| 25. | Can explain the biochemical properties and signaling mechanisms of hormones. |
| 26. | Can explain the general and structural features, synthesis and metabolism, mechanism |
| | of action and place of action of adrenal cortex and adrenal medulla hormones, sex |
| | gland hormones, calcium metabolism regulating hormones, pituitary and |
| | hypothalamic hormones, pancreatic hormones, gastrointestinal hormones and thyroid |
| | hormones, and interpret their clinical situations. |
| 27. | Can explain the properties of kidney tissue biochemistry, to count function tests and to |
| | explain the purpose of use. |
| 28. | Can classify medicinally important mushrooms and describe their structural features. |
| 29. | Can explain, compare and interpret the pathogenesis, diseases caused, prevention and |
| | treatment of fungi of medical importance. |
| 30. | Can explain basic information about antimycotic drugs. |
| 31. | Can explain the classification and structural features of parasites of medical |
| 1 | |

| | importance. | |
|-----|--|--|
| 32. | Can explain, compare and interpret the pathogenesis, diseases caused, prevention and | |
| | treatment of parasites of medical importance. | |
| 33. | Can describe basic information about antiparasitic drugs | |
| 34. | Can count the steps of intramuscular, subcutaneous and intradermal injection | |
| | applications, respectively, and can apply them on the model. | |
| 35. | Can count the steps of vascular access, blood collection, serum insertion and | |
| | intravenous injection applications, respectively, and can apply them on the model. | |
| 36. | Can count the steps of wound care and suturing application, respectively, and can | |
| | apply them on the model. | |
| 37. | Can count the steps of basic life support, intubation and recovery position in adults, | |
| | respectively, and can apply them on the model. | |
| 38. | Can compile scientific data, summarize with tables and graphs, analyze scientific data | |
| | with appropriate methods and can interpret the results, which are included in Basic | |
| | Medicine Practices. | |
| 39. | Can plan a research using scientific principles and methods | |
| 40. | Can access current literature information and read it with a critical eye, can apply the | |
| | principles of evidence-based medicine in clinical decision-making process. | |
| 41. | Can interpret the health level of the service area using health level indicators | |
| 42. | Can work within the scope of learner-centered practices, communication, time | |
| | management, questioning perspective, can focus on different interests and getting to | |
| | know the target area for career choice | |
| 43. | Can demonstrate effective communication and presentation skills by working more | |
| | closely in small groups within teamwork | |
| | | |

RECOMMENDED RESOURCE(S)

KEY RESOURCE(S)

Recommended **Anatomy** Reading/ 1. Yasin Arifoğlu, Her yönüyle Anatomi. 2016, İstanbul Tıp Studying Kitapevi materials 2. Moore Clinically Oriented Anatomy 7th Edition 3. Sobotta Atlas of Human Anatomy,15th Edition 4. Netter İnsan Anatomisi Atlası, 6. Baskı- Frank H. Netter, M.D. 5. Atlas of Human Anatomy, Sixth Edition- Frank H. Netter, M.D. 6. Arıncı K, Elhan A; Anatomi 1-2. Güneş kitabevi 7. Snell RS, Klinik Anatomi, Nobel Tıp Kitabevi **Medical Biochemistry** 1. Bhagavan's Medical Biochemistry 2. Tietz Textbook of Clinical Chemistry 3. Harpers Biochemistry 4. Marks' Essentials Of Medical Biochemistry **Physiology** 1. Guyton and Hall Textbook of Medical Physiology 13e pdf 2. Ganong's Review of Medical Physiology, 26th Edition 3. Vander's Human Physiology 14th e Histology-Embryology 1. Textbook of Histology 5th Edition. Leslie P. Gartner, PhD, Elsevier, 2020. 2. Histology: A Textand Atlas. Ross MH, Pawlina W. 8th ed. Lippincott Williams & Wilkins, USA, 2019. 3. Netter's Essential Histology. Ovalle WK, Nahirney PC. 3rd ed. Saunders Elsevier, Philedelphia, 2020. Human Embryology&DevelopmentalBiologyCarlson BM. 6th ed. MosbyElsevier, Philedelphia, 2018. Histoloji. Hücre, Doku, Sistemler, Teknikler-Moleküller-Laboratuvar-KlinikYönleriyle Yaklaşımlar. Editör: M. KURUŞ. Akademisyen Kitabevi, 2020. 6. Genel Histoloji-Özel Histoloji. Esrefoğlu Mukaddes. İstanbul Tıp Kitabevi, 2016. Klinik Yönleriyle İnsan Embriyolojisi. MooreKieth L. (Çeviri editörü: H. Dalçık). Nobel Tıp Kitabevi, 2016.

Warren Levinson Tıbbi Mikrobiyoloji ve İmmünoloji 2017 14.

Medical Microbiology

Baskı

- 2. Abul K.Abbas, Andrew H. Lichtman: Temel İmmünoloji;:
- 3. Warren Levinson Review of Medical Microbiology Immunology 16th Ed 2016
- 4. Jawetz, Melnick ve adelberg Tibbi Mikrobiyoloji 2014; Doan T, Melvold R
- 5. Lippincot İmmünoloji 2014

ASSESMENT and EVALUATION

PHASE 2 COMMITTEE 5 EXAM SCHEDULE

Phase 2 Committee 5 Schedule

Theoretical Examination: 2 June 2024 Friday 10.30

Practical Examination(s):

Professional Skills Laboratory Practice Exam: 31 May 2024

Histology And Embryology Laboratory Exam: 1 June 2024

Anatomy Laboratory Exam: 1 June 2024

PHASE 2 COMMITTEE 5 QUESTION DISTRUBITION

| 2023-2024Academic Year Phase 2 Committee 5 Question Distribution | | |
|--|---------------------|--|
| Lessons | Number of questions | |
| Anatomy | 14 | |
| Medical Microbiology | 19 | |
| Physiology | 15 | |
| Histology and Embryology | 21 | |
| Medical Biochemistry | 14 | |
| Professional Skills | 7 | |
| Special Study Module | 10 | |
| TOTAL | 100 | |

ASSESSMENT AND EVALUATION IN COMMITTEE EVALUATION EXAM

| COMMITTEE EXAM EVALUATION | | | | | |
|--|-------------------------|------------------|--|--|--|
| Activities | Number | Value (%) | | | |
| Practice exam | One for each lesson | It will be | | | |
| | The application | announced at | | | |
| Anatomy | method of the Practical | least one week | | | |
| Histology-Embryology | Exams is determined | before the exam. | | | |
| | by the relevant | | | | |
| | Department. | | | | |
| Oral exam | There is no oral | - | | | |
| | examination in this | | | | |
| | committee. | | | | |
| Written exam | 1 | It will be | | | |
| | | announced at | | | |
| (Theoretical Exam: Multiple choice exam) | | least one week | | | |
| | | before the exam | | | |
| Professional Skills | Vocational Skills | 7 | | | |
| | Laboratory Practice | | | | |
| | Exam | | | | |
| Special Study Module | Special Study Module | 10 | | | |
| | Evaluation | | | | |
| Total | | 100 | | | |
| | | | | | |

COMMITTEE EXAM SPECIFICATION TABLE

| Cor | Committee Exam Specification Table | | | | |
|-----|---|-----------------|-------------------|-------------------------|--|
| | Objective | Training method | Evaluation method | Exam score distribution | |
| 1 | To be able to describe the anatomy, function, vessels and innervation of endocrine organs and to be able to show these structures in the laboratory. | T, P | MCE, PE | 3 | |
| 2 | To be able to describe the anatomy, function, vessels and innervation of the bladder, kidney and adrenal gland and to show these structures in the laboratory. | T, P | MCE, PE | 3 | |
| 3 | To be able to explain the anatomy of the ureter and urethra, its strictures, crossings, neighborhoods, vascularization and innervation and show it in the laboratory. | T, P | MCE, PE | 3 | |

| | | ı | | |
|----|--|----------|------------|----------|
| 4 | To be able to explain the anatomical structure of | T, P | MCE, PE | 3 |
| | female and male internal and external genital | | | |
| | organs and to be able to show these structures | | | |
| | in the laboratory. | | | |
| 5 | To be able to identify pelvic arteries, veins and | T, P | MCE, PE | 3 |
| | lymphatics and to be able to demonstrate these | | | |
| | structures in the laboratory | | | |
| 6 | To be able to identify the muscles, fascia, vessels | T, P | MCE, PE | 2 |
| | and nerves of the perineum and to be able to | | | |
| | demonstrate these structures in the laboratory | | | |
| 7 | To be able to count the structure of the | T, P | MCE, PE | 4 |
| | nephron, the histological layers and cells of the | | | |
| | organs that make up the urinary system. | | | |
| 8 | To be able to fully enumerate the structures in | T, P | MCE, PE | 4 |
| | which the urinary system organs develop. | , | , | |
| 9 | To be able to fully explain all organs, histological | T, P | MCE, PE | 4 |
| | layers, cells and functions of the male and | , | , | |
| | female reproductive system. | | | |
| 10 | To be able to fully enumerate the structures in | T, P | MCE, PE | 4 |
| | which male and female reproductive system | ' | _ , _ | |
| | organs develop, to be able to fully explain the | | | |
| | organs of the endocrine system, histological | | | |
| | layers of organs, cells and their functions. | | | |
| 11 | To be able to fully enumerate the structures in | T, P | MCE, PE | 4 |
| | which the endocrine system organs develop. | 1,1 | IVICE/ I E | |
| 12 | To be able to explain the hemodynamic | Т | MCE | 1 |
| 1- | properties of renal circulation and the functional | - | WEE | 1 |
| | importance of these properties. | | | |
| 13 | To be able to list the mechanisms of filtration of | Т | MCE | 1 |
| | fluids in the kidney and the factors affecting it. | _ | | |
| 14 | To be able to explain the reabsorption and | Т | MCE | 1 |
| | secretion mechanisms and the formation of | | | |
| | urine along the renal tubules. | | | |
| 15 | To be able to explain and interpret the | Т | MCE | 1 |
| | functional mechanisms of micturition. | _ | | |
| 16 | To be able to explain the physiopathology of | Т | MCE | 1 |
| 10 | acidosis and alkalosis. | • | | 1 |
| 17 | To be able to explain the general and structural | Т | MCE | 2 |
| 1, | properties, synthesis and metabolism, | • | | _ |
| | mechanism of action and place of action of | | | |
| | hormones. | | | |
| 18 | To be able to interpret the interactions of | Т | MCE | 1 |
| | hormones with each other and the control of |] - | | 1 |
| | their secretion. | | | |
| 19 | To be able to explain the functions, periods | Т | MCE | 1 |
| | and tissues of hormones that are effective on | _ | | _ |
| | growth and development. | | | |
| 20 | To be able to explain the functions of hormones | Т | MCE | 1 |
| 20 | involved in the regulation of metabolism and to | 1 | IVICE | 1 |
| | be able to explain the metabolic steps in which | | | |
| | they are effective. | | | |
| | they are effective. | | | <u>I</u> |

| 21 | To be able to count the functions of hormones | Т | MCE | 1 |
|----|--|------|------------|---|
| 21 | that function in the regulation of body fluid- | 1 | WICE | 1 |
| | - | | | |
| 22 | electrolyte and ion balance. | Т | MCE | 1 |
| 22 | To be able to explain the effects of hormones | 1 | MCE | 1 |
| | that contribute to the adaptation of the | | | |
| | organism to various stress situations. | |) (CE | |
| 23 | To be able to interpret the mechanisms of | Т | MCE | 2 |
| | regulation of reproductive function in men and | | | |
| | women by explaining the hormonal changes that | | | |
| | occur during the process of gaining reproductive | | | |
| | function and the results of these changes. | | | |
| 24 | To be able to explain the causes of hormonal | T | MCE | 1 |
| | and systemic changes that occur during | | | |
| | pregnancy, to be able to explain the | | | |
| | mechanisms that contribute to the birth and | | | |
| | lactation. | | | |
| 25 | To be able to explain the biochemical properties | T | MCE | 5 |
| | and signaling mechanisms of hormones. | | | |
| 26 | To be able to explain the general and structural | Т | MCE | 5 |
| | features, synthesis and metabolism, mechanism | | | |
| | of action and place of action of adrenal cortex | | | |
| | and adrenal medulla hormones, sex gland | | | |
| | hormones, calcium metabolism regulating | | | |
| | hormones, pituitary and hypothalamic | | | |
| | hormones, pancreatic hormones, | | | |
| | gastrointestinal hormones and thyroid | | | |
| | hormones, and interpret their clinical situations. | | | |
| 27 | To be able to explain the properties of kidney | T | MCE | 4 |
| | tissue biochemistry, to count function tests and | | | |
| | to explain the purpose of use. | | | |
| 28 | To be able to classify medicinally important | T, P | MCE, PE | 3 |
| | mushrooms and describe their structural | | | |
| | features. | | | |
| 29 | To be able to explain, compare and interpret the | T, P | MCE, PE | 3 |
| | pathogenesis, diseases caused, prevention and | | | |
| | treatment of fungi of medical importance. | | | |
| 30 | To be able to explain basic information about | T, P | MCE, PE | 2 |
| | antimycotic drugs. | | | |
| 31 | To be able to explain the classification and | T, P | MCE, PE | 2 |
| | structural features of parasites of medical | | | |
| | importance. | | | |
| 32 | To be able to explain, compare and interpret the | T, P | MCE, PE | 2 |
| | pathogenesis, diseases caused, prevention and | , | | |
| | treatment of parasites of medical importance. | | | |
| 33 | To be able to describe basic information about | T, P | MCE, PE | 2 |
| | antiparasitic drugs | , ´ | ĺ | |
| 34 | To be able to count the steps of intramuscular, | T, P | MCE, PE | 1 |
| | subcutaneous and intradermal injection | -, - | | _ |
| | applications, respectively, and to be able to | | | |
| | apply them on the model. | | | |
| 35 | To be able to count the steps of vascular access, | T, P | MCE, PE | 2 |
| | to be ubic to count the steps of vascular access, | 1,1 | 1VICE, I L | |

| | blood collection, serum insertion and intravenous injection applications, respectively, | | | |
|----|---|------|------------|----|
| | and to be able to apply them on the model. | | | |
| 36 | To be able to count the steps of wound care and | T, P | MCE, PE | 2 |
| | suturing application, respectively, and to be able | | | |
| | to apply them on the model. | | | |
| 37 | To be able to count the steps of basic life | T, P | MCE, PE | 2 |
| | support, intubation and recovery position in | | | |
| | adults, respectively, and to be able to apply | | | |
| | them on the model. | | | |
| 38 | To be able to compile scientific data, summarize | T, P | MCE, PE | 1 |
| 30 | with tables and graphs, analyze scientific data | 1,1 | IVICE, I E | 1 |
| | with appropriate methods and to be able to | | | |
| | • • • | | | |
| | interpret the results, which are included in Basic Medicine Practices. | | | |
| 20 | | TD | MCE DE | 1 |
| 39 | To be able to plan a research using scientific | Т, Р | MCE, PE | 1 |
| | principles and methods | | | _ |
| 40 | To be able to access current literature | T, P | MCE, PE | 2 |
| | information and read it with a critical eye, to be | | | |
| | able to apply the principles of evidence-based | | | |
| | medicine in clinical decision-making process. | | | |
| 41 | To be able to interpret the health level of the | T, P | MCE, PE | 2 |
| | service area using health level indicators | | | |
| 42 | To be able to work within the scope of learner- | T, P | PE | 2 |
| | centered practices, communication, time | | | |
| | management, questioning perspective, to be | | | |
| | able to focus on different interests and getting | | | |
| | to know the target area for career choice. | | | |
| | 5 | | | |
| 43 | To be able to demonstrate effective | T, P | PE | 2 |
| | communication and presentation skills by | | | |
| | working more closely in small groups within | | | |
| | teamwork | | | |
| | | l | l . | Į. |

T: Theoretical education, P: Practical education, SSM: Special Study Module, MCE: Multiple choice exam, PE: Practical Exam.

COURSE CONTENT OF THE COMMITTEE

Course content

Department of Anatomy

- 1. Endocrine Organs
- 2. Kidneys and Ureters
- 3. Vesica urinaria and urethra
- 4. Practices, Endocrine Organs, Kidneys, Ureters and Suprarenal Glands, Vesica urineria ve urethra
- 5. Vessels and nerves of Posterior Abdominal Wall
- 6. Male Genital Organs
- 7. Female Genital Organs
- 8. Pelvic Cavity
- 9. Perineum

Department of Medical Biochemistry

- 1. Hormone Action & Signal Transduction
- 2. Pituitary & Hypothalamic hormones
- 3. Thyroid hormones
- 4. Regulatory Hormones of Calcium Metabolism
- 5. Adrenal cortex & medulla hormones
- 6. Biochemistry of Kidneys
- 7. Hormones of the Sexual glands
- 8. Pancreatic hormones
- 9. Gastrointestinal system hormones

Department of Physiology

- 1. Introduction to the Urinary System:
- 2. Kidney, Nephron Structure and Functions
- 3. Glomerular Filtration and Starling Forces
- 4. Regulation of Glomerular Filtration
- 5. Tubular Functions: Proximal Tubule, Henle's Loop
- 6. Tubular Functions: Distal Tubule and Collection Duct
- 7. Water, Osmolarity and Electrolyte balance
- 8. Medullary Osmotic Gradient and Urea Recycling
- 9. Renal function Tests
- 10. Clearance
- 11. Acid-base balance, Acidosis and Alkalosis
- 12. Micturition Mechanism
- 13. Principles of Endocrine System and Hypothalamo-Pituitary System
- 14. Pituitary Gland Hormones
- 15. Thyroid Gland
- 16. Thyroid Gland Hormones
- 17. Calcitonin, Parathormone, Vitamin D
- 18. Calcium Metabolism
- 19. Hormones of Pancreas Gland
- 20. Physiopathology of Diabetes Mellitus
- 21. Adrenal Cortex Hormones
- 22. Adrenal Medulla Hormones
- 23. Male Reproductive System Physiology
- 24. Female Reproductive System Physiology

25. Pregnancy and Lactation Physiology

Department of Histology and Embryology

- 1. Urinary System
- 2. Development of Urinary System
- 3. Male Genital System
- 4. Female Genital System
- 5. Development of Genital System
- 6. Endocrine System Histology and Development

Department of Medical Microbiology

- 1. Fungal structure and classification
- 2. Opportunistic Mycoses
- 3. Cutaneous and Subcutaneous Mycoses
- 4. Systemic Mycoses
- 5. Antifungal drugs and Pneumocystis
- 6. Introduction to parasitology and classification of medically important parasites
- 7. Plasmodium Species
- 8. Leishmania and Trypanosoma
- 9. Toxoplasma gondii and Free living amoebae
- 10. Intestinal protozoa and Urogenital protozoa
- 11. Microsporidia, Isospora, Balantidium, Cyclospora
- 12. Trematodes
- 13. Nematodes
- 14. Cestodes
- 15. Medically important arthropods
- 16. Anti-parasitic drugs

THE RELATIONSHIP WITH THE LEARNING OBJECTIVES AND THE ACTIVITY IN THE TRAINING PROGRAM

| | ASE 2 COMMITTEE 5 OBJECTIVES AND ACTIVITY RELATION E TRAINING PROGRAM | OIII IIV | |
|----|---|--------------------------------|----------------------|
| | Activity Included in the Training Program | Learning Objectives (LO) | Evaluation Method |
| | Anatomy | | |
| 1 | endocrine organs | 1 | MCE, PE |
| 2 | Kidney Anatomy, ureter | 2 | MCE, PE |
| 3 | Vesica urineria and urethra | 3 | MCE, PE |
| 4 | Abdominal wall vessels and nerves | 3 | MCE, PE |
| 5 | male genitalia | 4 | MCE, PE |
| 6 | female genital organs | 4 | MCE, PE |
| 7 | Pelvis | 5 | MCE, PE |
| 8 | perineum | 6 | MCE, PE |
| | Histology and Embryology | | |
| 9 | Urinary System Histology | 7 | MCE, PE |
| 10 | Urinary System Development | 8 | MCE, PE |
| 11 | Male Genital System Histology | 9 | MCE, PE |
| 12 | Female Genital System Histology | 9 | MCE, PE |
| 13 | Genital System Development | 10 | MCE, PE |
| 14 | Endocrine System Histology and Development | 11 | MCE, PE |
| | Physiology | | |
| 15 | Introduction to the Excretory System, Kidney, Nephron Structure and Functions | 12 | MCE |
| 16 | Micturition Mechanism | 15 | MCE |
| 17 | Glomerular Filtration and Starling Forces | 13,14 | MCE |
| 18 | Regulation of Glomerular Filtration | 13,14 | MCE |
| 20 | Tubular Functions: Proximal Tubule, Loop of Henle | 14 | MCE |
| 21 | Tubular Functions: Distal Tubule and Collecting Ducts | 14 | MCE |
| 22 | Water, Osmolarity and Electrolyte balance | 12,13,14,16 | MCE |

| 23 | Medullary Osmotic Gradient and Urea Recycling | 12,13,14,16 | MCE |
|----|--|-------------|-----|
| 24 | Acid-base balance, Acidosis and Alkaloses | 16 | MCE |
| 25 | Renal function tests, clearance | 12,13,14,16 | MCE |
| 26 | General Principles of the Endocrine System and the Hypothalamo-Hypophyseal System | 17, 18 | MCE |
| 27 | Pituitary Gland Hormones | 18 | MCE |
| 28 | Thyroid Gland Hormones | 19 | MCE |
| 29 | Calcitonin. Parathormone, Calcium Metabolism | 21 | MCE |
| 30 | Hormones of the Pancreas | 20 | MCE |
| 31 | Diabetes Mellitus Physiopathology | 20 | MCE |
| 32 | Adrenal Gland hormones | 22 | MCE |
| 33 | Male Reproductive System Physiology | 23 | MCE |
| 34 | Female Reproductive System Physiology | 23 | MCE |
| 35 | Pregnancy Physiology and Lactation | 24 | MCE |
| | Medical Biochemistry | | |
| 36 | Hormone Effect and Signal Transmission | 25 | MCE |
| 37 | Pituitary and Hypothalamic hormones | 25 | MCE |
| 38 | thyroid hormones | 26 | MCE |
| 39 | Hormones that regulate calcium metabolism | 26 | MCE |
| 40 | Adrenal Cortex and Adrenal Medulla hormones | 26 | MCE |
| 41 | Kidney tissue biochemistry | 27 | MCE |
| 42 | sex gland hormones | 26 | MCE |
| 43 | pancreatic hormones | 26 | MCE |
| 44 | Gastrointestinal system hormones | 26 | MCE |
| | Medical Microbiology | | |
| 45 | Mushroom Morphology and Classification | 28 | MCE |
| 46 | Opportunistic Mycoses | 29 | MCE |
| 47 | Systemic Mycoses | 29 | MCE |
| 48 | Cutaneous and Subcutaneous Mycoses | 29 | MCE |
| 49 | Antimycotic Drugs and Pneumocystis | 30 | MCE |
| 50 | Introduction to Parasitology and Classification | 31 | MCE |
| 51 | Plasmodium Species | 32 | MCE |
| 52 | Leishmania and Trypanosoma | 32 | MCE |

| 53 | Toxoplasma gondii, Free-Living Amoeba | 32 | MCE |
|----|---|-------------------|-----|
| 54 | Intestinal and Urogenital Protozoa | 32 | MCE |
| 55 | Microsporidia, Isospora, Balantidium, Cyclospora | 32 | MCE |
| 56 | nematodes | 32 | MCE |
| 57 | cestodes | 32 | MCE |
| 58 | Trematodes | 32 | MCE |
| 59 | Medically Important Arthropods | 32 | MCE |
| 60 | Antiparasitic Drugs | 33 | MCE |
| | Professional Skills Practices | | |
| 61 | Vascular Access, Blood Collection, Serum Insertion and IV Injection Skills | 34 | PE |
| 62 | IM, SC, ID Injection Application Skill | 35 | PE |
| 63 | Wound Care and Suturing Skills | 36 | PE |
| 64 | Basic Life Support, Endotracheal Intubation and Recovery Positioning Skills in Adults | 37 | PE |
| 65 | Special Operation Module | 38, 39, 40, 41 | PE |

DUTIES and RESPONSIBILITIES OF STUDENTS and OTHER ISSUES

EDUCATIONAL PROGRAM

- 1. Education in the faculty is carried out with an integrated system, the subjects and hours of which are arranged on the basis of coordination.
- 2. Education; In Phase I, Phase II and Phase III, it consists of common compulsory and elective courses with course committees conducted in an integrated system. In Phase I, Phase

II and Phase III, one year is a whole and is considered as a single course, excluding common compulsory and elective courses.

LESSONS

- 1. Each semester in the faculty's education program is a prerequisite for the next semester. Except for the common compulsory courses and elective courses, it is not possible to proceed to the next semester without completing all the courses, practices and courses of a semester.
- 2. Students who fail common compulsory and elective courses in Phase I, Phase II and Phase III continue to the next semester. However, students must be successful in these courses before starting Phase IV.

ECTS:

- 1. The sum of course credits for an academic year is 60 ECTS.
- 2. In order to graduate from the Faculty of Medicine at the end of 6 years of education, the minimum graduation credit must be 360 ECTS and the overall grade point average must be at least 2.00.

OBLIGATION TO CONTINUE

- 1. The principles regarding the attendance of students in Phase I, Phase II and Phase III are as follows:
- 2. Attendance at the faculty is compulsory. The follow-up method of attendance at the faculty is determined by the Dean's Office.
- 3. Each of the committees in Phase I, Phase II and Phase III are evaluated within itself. A student who does not attend more than 30% of the theoretical courses in these course committees, with or without an excuse, receives a zero grade from that course committee and cannot take the exam.
- 4. In Phase I, Phase II and Phase III, students who exceed 30% in all theoretical courses in a phase, whether or not they have an excuse for absenteeism, are not entitled to take the final and make-up exams. These students are given a TT grade.
- 5. With or without an excuse, a student who does not attend more than 20% of the total practical course hours of the department with 10 or more practical lessons is not taken to the practical exam of that department and the practice grade is evaluated as zero. In this case, the student is treated as having a score under the threshold from the practical exam separately.

- 6. With or without an excuse, a student who does not attend two hours of the practical courses of the department with less than 10 hours of practical lessons in a course committee is not taken to the practical exam of that department and the practice grade is evaluated as zero. In this case, the student is treated as having a score under the threshold from the practical exam separately.
- 7. Professional (vocational) skills practices are evaluated as a whole. If the total professional skills practices in a course committee are less than 10 hours, the student who does not participate in the 2 course hours, and if the total professional skills practices in the course committee are more than 10 hours, the student who does not attend more than 20% of the total course hours, the professional skills practice / application grade in that course committee is evaluated as zero. In this case, the student will be below the threshold in addition to the professional skills practice/practice exam.

RECOGNITION OF PRIOR EDUCATION

- 1. Students apply to the Dean's Office with a petition within the first week of the academic year in order to have the courses they have taken and succeeded from other higher education institutions recognized and adapted.
- 2. In the petition, the courses they want to be exempted from and the grades they get from these courses are clearly stated. In the annex of the petition, documents approved by the official authorities regarding their previous education, the grades of the courses they have previously completed, and their content are submitted.

EVALUATION OF SUCCESS IN PHASE I, PHASE II, PHASE III EXAMS

- 1. The following principles are followed in calculating the exam grades of the course committees:
- 2. Board exams are made as written exams and/or by using alternative methods such as homework/project. Exams can be conducted face-to-face and/or using digital facilities. In addition to the written exams, practical-practice and/or oral exams can be made by using face-to-face and/or digital facilities in the committees with practice. Different assessment methods can be determined for problem-based teaching, vocational skills training and other similar training practices.

- 3. The total grade of practical courses and their distribution according to the courses, the grade weight of the vocational skills practices, problem-based teaching (PBL) and other similar education and examination practices and the distribution according to the boards are determined by the Phase coordinators in line with the content of the education-training program.
- 4. In a course committee exam, each course and practice/practice exam has its own threshold. The threshold limit is 50%. If the student gets a grade below 50% in one or more of the courses that make up the board in the course committee exam, the score difference between the score obtained in that branch and 50% of the total score of that branch is deducted from the total score of the exam, and the exam grade of that course committee is determined. For the courses whose number of questions is less than 5% of the total number of questions in that exam, the relevant phase coordinator may decide to combine the dam application. Theoretical and practical points of the courses that make up the course committee are added together, and the course board exam score is found.
- 5. If the result is negative in the calculation of the total score of the course committee, this score is evaluated as zero.
- 6. Phase committees average grade: To calculate the phase committees average grade point; The ECTS value of each committee in that period is multiplied by the coefficient of the letter grade received from that committee. The values found as a result of the multiplication are added together and the total value obtained is divided by the total ECTS value of these committees. The resulting average is displayed as two decimal places.
- 7. Course committees are made by using alternative methods such as end-of-Phase (final) and make-up exams, written exams and/or homework/projects. Exams can be conducted face-to-face and/or using digital facilities. In addition to the written exams, a practical (practice) and/or oral exam can also be conducted using face-to-face and/or digital facilities.
- 8. In order to be considered successful, it is obligatory to get at least 50 points from the course committees end-of- Phase exam or the course committees make-up exam.
- 9. The final grade of the course committees is the grade obtained by adding 60% of the average grade of the course committees and 40% of the grade received from the final exam. In the calculation of the final grade of the students who fails, the grade taken from the make-up exam is taken as a basis instead of the grade from the final exam. In order for the student to move up to the next grade, he/she must get at least 50 from the course committees end-of-Phase exam or make-up exam, and The final grade of the course committees must be at least 60 out of 100.

10. The provisions of Muğla Sıtkı Koçman University Associate and Undergraduate Education Regulations published in the Official Gazette dated 27/8/2011 and numbered 28038 are applied in the conduct of common compulsory courses and non-TIP/MED coded elective/compulsory courses and in the evaluation of their exams.

RIGHT TO EXEMPTION FROM THE END OF PHASE (FINAL) EXAM

- 1. Students with an average grade of 85 and above in the course committees and a score of at least 60 and above from each course committee are not required to take the end-of- Phase exam. The average grade of the course committees of the students who have the right to be exempted from the end-of- Phase exam is accepted as the end-of- Phase success grade of the course committees.
- 2. Students who want to take the end-of- Phase exam, although they have obtained the right to be exempted from the end-of- Phase exam, must notify the Dean's Office in writing at least 7 days before the exam date. For students who take the end-of- Phase exam in order to raise their grades, the end-of- Phase exam score is taken into consideration when calculating the final grade of the course committees.

PHASE REPEAT

1. A student whose end-of- Phase exam grade or make-up exam grade and course committees end-of-semester success grade is below the scores specified in this regulation is considered unsuccessful and failed in the class. These students repeat that semester one more time and retake the exams. In these repetitions, students are obligated to attend classes.

RESPONSIBILITIES

- 1. They strive to make the classroom atmosphere nurturing to learning.
- 2. They are fair in their judgments about their friends and respectful of the existence of all people in the resolution of conflicts.
- 3. They respect cultural differences.
- 4. They are intolerant of all kinds of discrimination.
- 5. They maintain academic integrity and act accordingly.
- 6. They take an impartial attitude towards research, explain the results accurately, and state the studies and ideas that have been made or developed by others.
- 7. They act in a respectful and cooperative manner in interaction with all members of the healthcare team.

- 8. Take care of their appearance, be present in a professional and clean manner, and do not wear clothing and jewelry (jewelry, tattoos, or other symbols) that may interfere with the physical care of patients or communication with them.
- 9. They behave professionally in 9th grade classes, in clinical settings, in the way of speaking before the patient, reliability and appearance.
- 10. In their clinical practice, they always carry the university's identity or name badges on their aprons.
- 11. They introduce themselves to patients and their relatives as "medical students".
- 12. They participate in all clinical practices they are assigned to and inform the relevant people about their excuses in advance.
- 13. Respect the privacy of patients when interacting with them.
- 14. They consider confidentiality a fundamental obligation in patient care.
- 15. In their interaction with patients, instructors cannot act without their supervision or knowledge.
- 16. They keep all medical records related to patient care confidential and ensure that educational discussions about these records are held in accordance with the principles of confidentiality.
- 17. They report any illegal and unprofessional practices they observe to the authorities.
- 18. They make discussions about hospital staff and patients in a way that no one can hear except in common areas.
- 19. They treat patients and their relatives, as well as other members of the healthcare team, with respect and seriousness in their dialogue and discussion.
- 20. They know their limitations and seek help when their experience is insufficient.
- 21. During training and practice studies and exams, they do not make any unauthorized video, audio and similar recordings and do not share these recordings with third parties (including in social media, internet and similar environments), do not use or collect them for other purposes.
- 22. They act in accordance with the principles regarding attendance and other matters of Phase I, II and III students in the MSKU Faculty of Medicine Education-Training and Examination Regulations.
- 23. Students know the rules to be followed by students in MSKU Faculty of Medicine Pre-Graduation Education, students' responsibilities and duties and act accordingly.
- 24. Students know the issues in the Student Guides for MSKU Faculty of Medicine Student Laboratory Practices and act in accordance with these issues.

Please read:

- 1. The Rules to be Followed by Students in MSKU Faculty of Medicine Pre-Graduation Education, Students' Responsibilities and Duties
- 2. Student Guides for MSKU Faculty of Medicine Student Laboratory Practices

ENGLISH MEDICINE PROGRAM

Common Compulsory Courses English Medicine Program: Foreign Language (English-German-French 1-2-3-4), Principles of Atatürk and Revolutionary History 1-2 (International Student: ATBY2801, ATBY2802), Turkish Language 1-2 (International Student: TDBY1801, TDBY1802), Introduction to Information & Communication Technologies (Names and codes of the lessons may differ slightly from year to year)

MSKU Faculty of Medicine Education and Examination Regulations: Students who fail common compulsory and elective courses in Phase I, Phase II and Phase III continue to the next semester. However, students must be successful in these courses before starting Phase IV.

Compulsory Observation Training 1-2: Students who successfully complete the Phase 1 do their compulsory observation training in a primary healthcare institution for ten working days during the summer or half year vacation period; Students who successfully complete Phase 2 do their compulsory observation training in a secondary or tertiary healthcare institution for ten working days during the summer or half year vacation period. Completing the observation trainings is a prerequisite for starting Phase 4. It is a prerequisite to pass the Occupational Health and Safety course in order to do the Compulsory Observation Training. Compulsory Observation Training Course is planned to come into effect in the 2023-2024 academic year.

International students enrolled in the English Medicine Program: Until Phase 4, the original document proving that they can speak Turkish at the B2 level, taken from the centers providing Turkish education (Turkish and Foreign Language Application and Research Center-TÖMER, etc.) accepted by YÖK, has to be submitted to the Dean's Office. Students who cannot meet the Turkish proficiency requirement cannot continue to Phase 4 until they have the prerequisite Turkish proficiency certificate.

Courses Required Before Passing to Phase 4 of the English Medicine Program: Foreign Language (English-German-French) 1-2-3-4, Principles of Atatürk and Revolutionary History

1-2 (Foreign Student: ATBY2801, ATBY2802), Turkish Language 1-2 (Foreign Student: TDBY1801, TDBY1802), Introduction to Information & Communication Technologies, Phase 1 Elective Course, Compulsory Observation Training 1-2, Turkish Proficiency Certificate specified in the regulation for international students (Names and codes of the lessons may differ slightly from year to year) (Register from the Student Information System and check your success at regular intervals.)

Registration for Common Compulsory Courses and Elective Courses: Students have to register for these courses themselves through the student information system and follow up all the courses that you have to achieve regularly through the student information system by entering the student information system at least once a week.

Disclaimer:

The information given in the guide above is for informing students only and does not have any legal status. Keep in mind that there may be changes over time due to the names of the courses, their codes, legal regulations, the decisions of board of coordinators, the decisions of the term coordinator and similar reasons.