


RF Ministry of Education	Form	
F- The guidelines self-study work of students		

**APPROVED**  
 by the decision of the Council of department of the human anatomy  
 Chairman \_\_\_\_\_  
*(signature, signature clarification)*

**The guidelines self-study work of students**  
 of discipline “Anatomy”  
 Course (speciality) 31.05.01. « General medicine »  
 The department of the human anatomy

Self-dependent (extra auditorium) work of students is emerged of few categories:

- 1) theoretical self-preparation of students on some educational themes
- 2) acquaintance with supplementary educational literature and other educational methodological materials, consolidating students practical skills
- 3) writing of exam case report.

The main kinds of self-dependent work of students for better preparation to the lectures and practical classes of the definite theme: to read and to learn material in the recommended main and supplementary literature; to answer given questions, to demonstrate practical skills, to prepare or to learn schemes, tables, to prepare oral and/or computer presentation.


### PLAN OF SELF-STUDY WORK OF STUDENTS

Self-study work	Total	1 semester	2 semester	3 semester
	108	72	18	18

№	Name of the subject section	Types of SSW	Total number of hours
1	1 semester <b>Section 1. The history of anatomy.</b> <b>Ontogenesis</b> <b>Topic1. Ontogenesis</b>  <b>Topic 2. Introduction to embryology</b>	Work with literature sources and other information resources on studied sections.	<b>7</b>
		Writing a fragment of a case report.	<b>8</b>
2	<b>Section 2. Osteology</b>  <b>Topic 3. Development of the bones of the skull</b>	Work with literature sources and other information resources on studied sections.	<b>7</b>
		Writing a fragment of a case report.	
3	<b>Section 3 Arthrology</b> <b>Topic 4. General arthrosyndesmology</b>  <b>Topic 5. The bones and joints of postnatal ontogenesis</b> <b>Topic 6. Join of bones of the trunk and the skull</b> <b>Topic 7. Introduction to X-ray anatomy</b> <b>Topic 8. Join of the skull bones and the trunk bones</b>	Work with literature sources and other information resources on studied sections.	<b>6</b>
		Writing a fragment of a case report.	<b>5</b>
			<b>5</b>
			<b>7</b>
			<b>6</b>

<b>4</b>	<b>Section 4. Miology</b>	Work with literature sources and other information resources on studied sections.	<b>9</b>
	<b>Topic 9. General questions about medicine anthropology</b>		
	<b>Topic 10. Classification of muscles</b>	Writing a fragment of a case report.	<b>6</b>
	<b>Topic 11. The bone-fascias and intermuscular space of calvarium</b>		<b>6</b>
<b>5</b>	2 semester	Work with literature sources and other information resources on studied sections.	<b>1</b>
	<b>Section 5. Viscerology</b>		
	<b>Topic 12. Muscles and fasciae of perineum</b>	Writing a fragment of a case report.	<b>1</b>
	<b>Topic 13. The organs of the oral cavity. Feature of structure of newborn</b>		<b>1</b>
	<b>Topic 14. Normal feature and pathology in X-ray anatomy of teeth and jaw in the different view</b>		<b>1</b>
	<b>Topic 15. Development, abnormalities of development and X-ray anatomy of the organs of digestive system</b>		<b>1</b>
	<b>Topic 16. Upper airways. Features of structure and development of adult and newborn</b>		<b>1</b>
	<b>Topic 17. Development, abnormalities of development and X-ray anatomy of the organs of urinary system</b>		<b>1</b>
	<b>Topic 18. Features of structure and development of genitals.</b>		<b>1</b>
<b>6</b>	<b>Section 6. Angiology</b>	Work with literature sources and other information resources on studied sections.	<b>1</b>
	<b>Topic 19. Embryogenesis of the cardiovascular system</b>		
	<b>Topic 20. Development of the cardiovascular system. Features of structure of newborns and children</b>	Writing a fragment of a case report.	<b>1</b>
	<b>Topic 21. Blood supply of organs of</b>		<b>1</b>



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## **Section 1. The history of anatomy. Ontogenesis**

### **Topic1. Ontogenesis**

The initial stages of ontogenesis. Characteristics of early stages

### **Topic 2. Introduction to embryology**

Phase of prenatal development. Histogenesis and organogenesis of the main system.

Critical periods of fetal development. Characteristics of retention organs. Periods of postnatal development.

## **Section 2. Osteology**

### **Topic 3. Development of the bones of the skull**

Features of structure of the skull of newborn. Dimorphism of the skull. Abnormalities of development of bones of the skull. X-ray anatomy of skull bones.

## **Section 3 Arthrology**

### **Topic 4. General arthrosyndesmology**

Types of continuous join. Features of structure of joints. The signification about complex and combined joints. Formation of spinal curvature to ontogenesis. Abnormalities of development of backbone and thorax. X-ray anatomy of joints of trunk and limbs .

### **Topic 5. The bones and joints of postnatal ontogenesis**

Features of development of bones and joints of postnatal ontogenesis

### **Topic 6. Join of bones of the trunk and the skull**

Continuous and discontinuous join of bones of the trunk and the skull. Vertebral column. General anatomy of thorax

### **Topic 7. Introduction to X-ray anatomy**

Features of x-ray anatomy of organs and system of human organism. The method of computer tomography and nuclear magnetic resonance

### **Topic 8. Join of the skull bones and the trunk bones**

Features of the structure of the temporomandibular join, continuous connections of the skull. Classification of the joints of the bones of the trunk.

## **Section 4. Miology**

### **Topic 9.General questions about medicine anthropology**

Morphology of human as a section of human science, its principles and ways. Anthropometry as the complex of morphological and functional features

### **Topic 10. Classification of muscles**

Classification of muscles. Auxillary apparatus of muscles

### **Topic 11. The bone-fascias and intermuscular space of calvarium**

The bone-fascias and Intermuscular space of calvarium, temporal area and lateral area of face, its topography, walls, contains and signification.

## **Section 5. Viscerology**

### **Topic 12. Muscles and fasciae of perineum**

Structure of perineum. Differences of structure of male and female perineum. Muscles of urogenital diaphragm and pelvic diaphragm

### **Topic 13. The organs of the oral cavity. Feature of structure of newborn**


Dentoalveolar apparatus of children and adults. Feature of structure of upper and lower row of teeth. Time of cutting out of first and permanent teeth.

### **Topic 14. Normal feature and pathology in X-ray anatomy of teeth and jaw in the different view**

Features of X-ray anatomy of teeth and jaw in the different view

### **Topic 15. Development, abnormalities of development and X-ray anatomy of the organs of digestive system**

Development and features of structure of organs of digestive system of newborns and adults.

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Abnormalities of development of digestive system

**Topic 16. Upper airways. Features of structure and development of adult and newborn**

Paranasal sinuses. Antrum of Highmore, its anatomy, functional signification, binding with dentoalveolar apparatus. Olfactory region of nose

**Topic 17 . Development, abnormalities of development and X-ray anatomy of the organs of urinary system**

Features of embryogenesis of urinary apparatus. Abnormalities of development of urinary apparatus.

Features of x-ray anatomy of kidneys, ureters and urinary bladder

**Topic 18. Features of structure and development of genitals.**

Features of embryogenesis of urinary apparatus. Abnormalities of development of male and female genitals

**Section 6. Angiology**

**Topic 19. Embryogenesis of the cardiovascular system**

Cardiovascular system, its general anatomy, development and functions. Development of the heart.

X-ray anatomy of the heart and large vessels

**Topic 20. Development of the cardiovascular system. Features of structure of newborns and children**

Features of structure of newborns and children. Vessels of various size, their features of structure.

Collateral circulation. X-ray anatomy of the heart and large vessels. Anastomosis of trunk and limbs vessels, their clinical signification

**Topic 21. Blood supply of organs of head and neck**

Blood supply of brain, organ of the vision and tongue

**Topic 22. General anatomy of arteries structure. Collateral circulation.**

Structure of artery walls. The concept of collateral circulation.

**Topic 23. Formation of azygos and hemazygos vein**

Binding with venous plexus of spinal column and veins of retroperitoneal space. The ways of outflow of venous blood from venous plexus of cervical, thoracic and lumbar part of the spinal column

**Topic 24. Features of fetal circulation**

Features of fetal heart and fetal vessels.

**Topic 25. The outflow of lymph of the organs of pelvis and abdominal cavity**

The ways of outflow of lymph from rectum, uterus and urinary bladder. The ways of outflow of lymph from abdominal part of esophagus, stomach, liver and parts of small and large intestines

**Topic 26. The outflow of lymph of the lungs and the heart. Features of outflow of lymph from thorax part of esophagus**

Formation and places of inflow of lymphatic ducts and jugular trunk

**Topic 27. Main lymphatic vessels**

Main lymphatic vessels and nodes of the head, neck, organs of thoracic cavity and upper limbs.

Parietal and visceral lymphatic nodes of organs of thorax. Superficial and deep lymphatic vessels and nodes of the head and neck. Superficial and deep lymphatic vessels and nodes of upper limb.


The ways of outflow of lymph from mammary gland. Main lymphatic vessels and nodes of lower limbs, organs of pelvis and abdomen. Superficial and deep lymphatic vessels of lower limb.

Popliteal and inguinal lymph nodes. Parietal and visceral lymph nodes of pelvis and abdominal cavity. Lymphatic vessels and regional nodes of the stomach, small and large intestines, kidneys, liver, uterus and urinary bladder

**Topic 28. Functional anatomy of autonomic nervous system**

Structure and functions of autonomic nervous system. Sympathetic and parasympathetic parts.

Sympathetic trunk, its topography and nerves. Autonomic nervous plexus of the head, neck, thorax, abdomen and pelvis. Parasympathetic nervous centers of brain and spinal cord. Vagus and splanchnic nerves of the peripheral nervous system

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**Topic 29. Autonomic ganglions, their relations with trigeminal nerve**

Pterygopalatine ganglion, otic ganglion, sublingual ganglion, submandibular ganglion, their biding with branches of trigeminal nerve

**Topic 30. Autonomic plexus of the neck and the head , the cavity of thorax and the abdominal cavity.**

Structure and function of the vegetative plexus of the head and the neck. Zones of innervations.

**Section 7. Esthesiology**

**Topic 34. The integumentary system**

Development of skin of embryogenesis. Ectoderm and neuroderm. Derivatives of the skin. Features of development of the hairs, nails and glands.

**INSTRUCTIONAL AND INFORMATION SUPPORT OF THE SUBJECT**

**The list of recommended literature**

**Essential literature:**

1) Human anatomy: the textbook in 2 v./M.R.Sapin, L.L.Kolesnikov, D.B.Nikitjuk. – M., New Wave Publisher Ltd, 2013.;

**Additional literature:**

2) Sobotta. Atlas of human anatomy in 2 v/ R. Putz, R. Pabst ;

3) Human anatomy: the textbook in 2 v./ M.Prives, N.Lysenkov, V.Bushkovich. – M.,Mir Publishers, 1998

**Software:** 1. *Terminologia anatomica* / <http://www.unifr.ch>

IT software, databases, information and reference systems, search systems

**database, information and reference, search systems:**

1. URL:<https://www.rosminzdrav.ru/docs>.

2. ЭБС «IPRbooks» ([www.iprbookshop.ru](http://www.iprbookshop.ru)).

3. ЭБС «Консультант студента» ([www.studmedlib.ru](http://www.studmedlib.ru)).