## Faculty of Medicine / STOMATOLOGY / GNATHOLOGY

| **Course:** | GNATHOLOGY | | | |
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| **Course ID** | **Course status** | **Semester** | **ECTS credits** | **Lessons** (Lessons+Exercises+Laboratory) |
| 5934 | Mandatory | 4 | 8 | 1+3+0 |
| **Programs** | STOMATOLOGY | | | |
| **Prerequisites** | Dental anatomy and other subjects with a year of study | | | |
| **Aims** | The student should know and acquire basic notions in the field of occlusion. Anatomical and physiological determinants control jaw movement and the reference position of the mandible. To know the material, type, purpose and possibilities of the articulator and facial arches and the ability to work with them. To introduce disruption in jaw joints and meet the diagnosis and therapy of CMD (reversible and irreversible). Empower to perform clinical examination of the orofacial complex patient and functional analysis of the orofacial complex. Empower the analysis of intermaxillary relations and contact relation with the tooth positions and movements of the mandible. | | | |
| **Learning outcomes** | After completing one semester in subjects Gnathology, dental student should possess the following learning outcomes: 1. Knows the structure and function of the orofacial system with the emphasis on the structure and function TM joints. 2. Knows the anatomical determinants, physiological regulation of jaw movements, types of motion and the reference position of the mandible. 3. Know the characteristics of a physiologically optimal occlusion and knows the dysfunction of this system. Know the concepts of occlusion and the basis of reversible and irreversible therapy. 4. Know the structure, type, purpose and possibilities of the articulator and facial arches and is capable of working with the articulator of secondary value and transfer face-bow. 5. He is capable of taking a history and performing a clinical examination of the face and jaw of the patient. 6. Able to analyze the relationships between the jaws and analysis of the relationship of teeth in the basic positions of the mandible and in eccentric movements. 7. Integrate the acquired knowledge and skills which should enable monitoring of teaching and acquiring the necessary knowledge of clinical dental-prosthetic. | | | |
| **Lecturer / Teaching assistant** | Doc. dr Biljana Milošević, Associates dr Zorica Popović, dr Vesna Kisić | | | |
| **Methodology** | Lectures,exercises, colloquia, seminars | | | |
| **Plan and program of work** | | | | |
| Preparing week | Preparation and registration of the semester | | | |
| I week lectures | Introduction to gnatology and orofacial system. The connection between skulls and mandible – anatomical specificity. The connection between skulls and mandible - physiological specificity. The muscles of orofacial region. | | | |
| I week exercises | Exercises follow the lectures. | | | |
| II week lectures | Functional anatomy of the natural dentition. The movements of the lower jaw-core and marginal. | | | |
| II week exercises | Exercises follow the lectures. | | | |
| III week lectures | Functional movements of the lower jaw-chewing, swallowing. The reference position of the lower jaw. | | | |
| III week exercises | Exercises follow the lectures. | | | |
| IV week lectures | Anatomical determinants of jaw movement. Physiological regulation of jaw movement. | | | |
| IV week exercises | Exercises follow the lectures. | | | |
| V week lectures | Characteristics physiologically optimal occlusion. Articulators-able simulation of jaw movements | | | |
| V week exercises | Exercises follow the lectures. | | | |
| VI week lectures | Transposition of models of the upper jaw in the articulator - simulation the hinge movement. Transposition of mandible model in the articulator. | | | |
| VI week exercises | Exercises follow the lectures. | | | |
| VII week lectures | Simulation of the eccentric motion in partially adjustable articulators. Simulation of the eccentric motion in high-adjustable articulators. | | | |
| VII week exercises | Exercises follow the lectures. | | | |
| VIII week lectures | Characteristics unphysiologic activities orofacial system. CMD. | | | |
| VIII week exercises | Exercises follow the lectures. | | | |
| IX week lectures | Functional analysis of the orofacial complex. Analysis interjaw relations- first lecture | | | |
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| IX week exercises | Exercises follow the lectures. |
| X week lectures | Analysis interjaw relationship-second lecture. Evaluation of the state of occlusal complex |
| X week exercises | Exercises follow the lectures. |
| XI week lectures | Analysis interjaw relationship-second lecture. Evaluation of the state of occlusal complex. |
| XI week exercises | Exercises follow the lectures. |
| XII week lectures | Analysis of the tooth contact relationship in the central relation position and intercuspal position and during eccentric movements of the lower jaw. Reversible the occlusal therapy . |
| XII week exercises | Exercises follow the lectures. |
| XIII week lectures | The concept balanced occlusion. The concept mutually protected occlusion |
| XIII week exercises | Exercises follow the lectures. |
| XIV week lectures | Irreversible the occlusal therapy. Determinants of occlusal morphology and reconstruction of occlusion. |
| XIV week exercises | Exercises follow the lectures. |
| XV week lectures | Etioligija, pathology and treatment of tooth abrasion. |
| XV week exercises | Exercises follow the lectures. |
| XVI week lectures | Upper and lower jaw prints with irritable hydrocolloids in selected patients with natural dentition spilling of working models |
| XVI week exercises | Craniomandibular dysfunctions |
| XVII week lectures | Transferring the model of the upper jaw to the articulator using a cheek arch, demonstrating on the patient |
| XVII week exercises | Anamnesis in dental practice, functional analysis of the orofacial complex , significance , methods |
| XVIII week lectures | Transferring the model of the upper jaw to the articulator using a cheek arch, the work of students on patients |
| XVIII week exercises | Evaluation of the state of the occlusal complex |
| XIX week lectures | Evluation of the condition of the occlusal complex in selected patients , the use of dental records |
| XIX week exercises | Analysis of the contact relationship of the nteeth in the intercuspal, central position and in eccentric movements of the lower jaw , occlusal markers |
| XX week lectures | Analysis of the contact relationship of teeth with the help of occlusal markers demonstration on the patient |
| XX week exercises | Analysis of inter-forked relationships, part I |
| XXI week lectures | Analysis of the contact relationship of teeth with the help of occlusal markers , independent work of students |
| XXI week exercises | Analysis of inter-forked relationships, Part II |
| XXII week lectures | Analysis and registration of interjacular relationships, demonstration on the patient Finding and registering the central position of the lower jaw by methods, demonstrating |
| XXII week exercises | Occlusal therapy, concept, modalities, Reversible OT, Irreversible OT |
| XXIII week lectures | Finding and registering the central position of the lower jaw by various methods, independent work of students on patients, awarding of seminar papers |
| XXIII week exercises | Choice of occlusion model during irreversible occlusal therapy - the concept of bilaterally balanced occlusion |
| XXIV week lectures | Finding the position of physiological rest of the mandible, determining the vertical dimension of the occlusion, demonstrating on the patient , analysis of the position of the orientation occlusion plane |
| XXIV week exercises | The concept of mutually spawned occlusion |
| XXV week lectures | Finding the position of physiological rest of the mandible, determination of the vertical dimension of the occlusion, analysis of the position of the occlusal plane., independent work of students on patients |
| XXV week exercises | Determinates of occlusal morphology in occlusal reconstruction – planning of contact relationship of teeth in the final occlusal position of the mandible |
| XXVI week lectures | Working with adjustable articulators, registering eccentric positions of the lower jaw, adjusting the leading elements on adjustable articulators, demonstrating, exhibiting seminar papers |
| XXVI week exercises | Determinants of occlusal morphology in lower jaw movements |
| XXVII week lectures | Working with adjustable articulators, registering eccentric positions of the lower jaw, adjusting the |

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| | leading elements on adjustable articulators, independent work of students |
| XXVII week exercises | Irreversible occlusal therapy – selective grinding, indications, methods, instruments |
| XXVIII week lectures | Analysis of mandible guidance in eccentric movements, finding occlusal disturbances, demonstrating, presenting seminar papers |
| XXVIII week exercises | Other forms of irreversible occlusal therapy, conservative, prosthetic, orthodontic, orthognatic surgery, case report |
| XXIX week lectures | Preparation of stabilization Michigan splint , demonstration on the patient and in the articulator, presentation of seminar papers |
| XXIX week exercises | Clinical significance of gnatological procedures in reconstructive dentistry |
| XXX week lectures | |
| XXX week exercises | |
| **Student workload** | weekly 6 credits x 40/30 equal to 8 hours Structure: 3 lectures 3 exercises 1 hour seminar 1 hour of individual work In the course of the semester Teaching and the final exam (8h x 16 equals 128h) Necessary preparation (before semester enrollment, etc ...) 2h x 8 equals 16 Total load: 6 x 30 equals 180h Additional work 36h The structure of the load 128 + 16 + 16 equals 180h |

| **Per week** | **Per semester** |
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| **8 credits x 40/30=10 hours and 40 minuts**<br>1 sat(a) theoretical classes<br>0 sat(a) practical classes<br>3 excercises<br>**6 hour(s) i 40 minuts**<br>of independent work, including consultations | Classes and final exam:<br>**10 hour(s) i 40 minuts x 16 =170 hour(s) i 40 minuts**<br>Necessary preparation before the beginning of the semester (administration, registration, certification):<br>**10 hour(s) i 40 minuts x 2 =21 hour(s) i 20 minuts**<br>Total workload for the subject:<br>**8 x 30=240 hour(s)**<br>Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item)<br>**48 hour(s) i 0 minuts**<br>Workload structure: **170 hour(s) i 40 minuts (cources), 21 hour(s) i 20 minuts (preparation), 48 hour(s) i 0 minuts (additional work)** |
| **Student obligations** | The presence of theoretical and practical training is mandatory. |
| **Consultations** | The teacher and associates held consultations with students once a week, in the period that is defined at the beginning of the semester. |
| **Literature** | Prof. dr Darinka Stanišić Sinobad „Osnovi gnatologile“ Prof. dr Darinka Stanišić Sinobad, prof. dr Slobodan Dodić „Praktikum iz osnova gnatologije“ |
| **Examination methods** | Colloquium 1 - 1 x 15 points Colloquium 2 - 1 x 20 points Control tests of practical exercises 5 + 5 Total: 10 Seminar - 4 points Passing grade gets the cumulative gather min 50 points |
| **Special remarks** | No |
| **Comment** | No |

| **Grade:** | F | E | D | C | B | A |
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| **Number of points** | less than 50 points | greater than or equal to 50 points and less than 60 points | greater than or equal to 60 points and less than 70 points | greater than or equal to 70 points and less than 80 points | greater than or equal to 80 points and less than 90 points | greater than or equal to 90 points |