



## Dental Radiology

| <b>1. IMPRINT</b>  |   |
|--|---|
| <b>Academic Year</b>   | 2022/2023   |
| <b>Department</b>  | Faculty of Dental Medicine  |
| <b>Field of study</b>  | English Dentistry Division  |
| <b>Main scientific discipline</b><br><i>(in accord with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</i> | Medical sciences  |
| <b>Study Profile</b> <i>(general academic / practical)</i>   | General academic  |
| <b>Level of studies</b><br><i>(1<sup>st</sup> level / 2<sup>nd</sup> level / uniform MSc)</i>  | Uniform MSc   |
| <b>Form of studies</b>   | Full-time program   |
| <b>Type of module / course</b><br><i>(obligatory / non-compulsory)</i>   | Obligatory  |
| <b>Form of verification of learning outcomes</b> <i>(exam / completion)</i>  | Completion  |
| <b>Educational Unit / Educational Units</b><br><i>(and address / addresses of unit / units)</i>  | Department of Dental and Maxillofacial Radiology<br>Medical University of Warsaw<br>ul. Binieckiego 6, 02-097 Warszawa, tel. 22 116 64 10<br>e-mail: zrs@wum.edu.pl |

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| <b>Head of Educational Unit / Heads of Educational Units</b>  | prof. dr hab. n. med. Kazimierz Szopiński   |
| <b>Course coordinator</b> (title, First Name, Last Name, contact)   | Anna Pogorzelska DMD, PhD, anna.pogorzelska@wum.edu.pl  |
| <b>Person responsible for syllabus</b> (First name, Last Name and contact for the person to whom any objections concerning syllabus should be reported) | Piotr Regulski DMD, PhD, piotr.regulski@wum.edu.pl  |
| <b>Teachers</b>   | Professor Kazimierz Szopiński MD, PhD , kazimierz.szopinski@wum.edu.pl<br>Piotr Regulski DMD, PhD, piotr.regulski@wum.edu.pl<br>Anna Pogorzelska DMD, PhD, anna.pogorzelska@wum.edu.pl<br>Lek. stom. Stanisław Jalowski DMD, stanislaw.jalowski@wum.edu.pl<br>Lek. Dominika Piątek MD, dominika.piatek@wum.edu.pl<br>Lek. dent. Monika Syczewska DMD, monika.syczewska@wum.edu.pl |

## 2. BASIC INFORMATION

|   |  |                               |                                 |
|---|--|-------------------------------|---------------------------------|
| <b>Year and semester of studies</b>           | 4 <sup>th</sup> year, 7 <sup>th</sup> semester | <b>Number of ECTS credits</b> | 3,5                             |
| <b>FORMS OF CLASSES</b>                       |  | <b>Number of hours</b>        | <b>ECTS credits calculation</b> |
| <b>Contacting hours with academic teacher</b> |  |                               |                                 |
| Lecture (L)                                   |  |                               |                                 |
| Seminar (S)                                   |  | 8                             | 0,32                            |
| Discussions (D)                               |  | 42                            | 1,68                            |
| e-learning (e-L)                              |  |                               |                                 |
| Practical classes (PC)                        |  |                               |                                 |
| Work placement (WP)                           |  |                               |                                 |
| <b>Unassisted student's work</b>              |  |                               |                                 |
| Preparation for classes and completions       |  | 38                            | 1,5                             |

## 3. COURSE OBJECTIVES

|    |  |
|----|--|
| O1 | To acquire the ability to write radiological reports and documentation of basic intra- and extraoral examinations.   |
| O2 | To acquire practical skills in radiological and differential diagnosis of the teeth, alveoli and facial pathologies. |
| O3 | To acquire knowledge in the field of CBCT diagnostics.   |

**4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING** (concerns fields of study regulated by the Regulation of Minister of Science and Higher Education from 26 of July 2019; does not apply to other fields of study)

|   |                               |
|---|-------------------------------|
| <p><b>Code and number of effect of learning in accordance with standards of learning</b><br/>(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)</p> | <p><b>Effects in time</b></p> |
|---|-------------------------------|

**Knowledge – Graduate\* knows and understands:**

|        |   |
|--------|---|
| A.W1.  | structures of the human body: cells, tissues, organs and systems, with particular emphasis on the dental system   |
| B.W9.  | methods of imaging tissues and organs and the principles of operation of diagnostic devices used for this purpose |
| E.W20. | conditions, when the patient should be referred to hospital.  |
| F.W18. | principles of radiological diagnostics  |
| G.W34. | rules for keeping, storing and sharing medical records and personal data protection                               |

**Skills– Graduate\* is able to:**

|        |   |
|--------|---|
| A.U1.  | interpret anatomical relations illustrated with the basic methods of diagnostic tests in the field of radiology (overview and contrast agent radiographs) |
| E.U1.  | carry out differential diagnosis of the most common diseases  |
| E.U3.  | plan diagnostic and therapeutic procedures in the most common diseases  |
| E.U5.  | identify normal and pathological structures and organs in additional imaging examinations (X-ray, ultrasound, computed tomography - CT)                   |
| F.U11. | keep current patient records, prescribe referrals for tests or for a specialized dental and medical treatment   |
| F.U18. | diagnose, differentiate and classify malocclusion   |
| G.U26. | keep medical records  |

\* In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate”, not student is mentioned.

| <b>5. ADDITIONAL EFFECTS OF LEARNING</b> (non-compulsory) |  |
|---|--|
| <b>Number of effect of learning</b>                       | <b>Effects of learning in terms of</b> |
| <b>Knowledge – Graduate knows and understands:</b>        |  |
| K1  |  |
| <b>Skills– Graduate is able to:</b>                       |  |
| S1  |  |
| <b>Social Competencies – Graduate is ready for:</b>       |  |
| SC1   |  |

| <b>6. CLASSES</b>    |   |  |
|----------------------|---|--|
| <b>Form of class</b> | <b>Class contents</b>   | <b>Effects of Learning</b>   |
| Seminars             | <p>S1 – Anatomy on panoramic radiographs. Radiological diagnostics - caries, marginal periodontium</p> <p>S2- Radiological symptoms of periapical periodontium pathology. PAI index. Radiological diagnosis - focal cyst lesions.</p> <p>S3 – Radiological diagnosis of trauma of the teeth, alveolar process and other structures of the craniofacial. X-ray symptoms of trauma.</p>   | <p>F.W18., E.U1, E.U3., F.U18. F.U23.</p> <p>E.W20., F.W18., E.U1., E.U3., F.U11.</p> <p>A.W1., F.W18., A.U1., E.W20., E.U1.,E.U3., E.U5., G.U26.</p>  |
| Classes              | <p>C1 – Technique of taking panoramic radiographs. The concept of a layer. Discussion of the most common technical errors and the possibility of their correction.</p> <p>C2- Examination of the patient: technique of taking panoramic radiographs. Discussion of the practical aspects of panoramic radiographs, elimination of errors.</p> <p>C3- Anatomy of the facial part of the cranium on panoramic radiographs, shadows, anatomical variations</p> <p>C4- Dental abnormalities - diagnostics on panoramic radiographs</p> <p>C5 – Radiological symptoms of pathology in the diagnosis of defects in mineralized tooth tissues of carious and non-carious origin in deciduous and permanent teeth, assessment of marginal periodontium on panoramic radiographs</p> <p>C6 - Radiological symptoms of periapical periodontium pathology – differentiation</p> <p>C7, C8 – Radiological diagnosis of trauma within the teeth and the alveolar process</p> <p>C9 - 10 – Radiological diagnosis - discussing cases on panoramic radiographs. Radiological symptoms of pathology in the field of defects in mineralized tissues of the tooth, marginal periodontium, periapical periodontium, as well as focal lesions and trauma.</p> <p>C11-12 multimedia classes with the use of e-learning</p> | <p>F.W18., A.U1., E.U1., E.U5., F.U23.</p> <p>F.W18., G.W34., E.U1., C.U11., F.U23.</p> <p>F.U23.</p> <p>F.W18., E.U1. G.W34., E.U1., E.U3., G.U26., B.W9.</p> <p>F.W18., A.U1.</p> <p>E.U3, E.U5.</p> <p>F.W18., A.U1., E.U1., G.U26., F.U11.</p> <p>F.W18., A.U1., E.U1., E.U5., F.U23</p> |

| <b>7. LITERATURE</b>  |
|---|
| <b>Obligatory</b>   |
| 1. Whaites E., Drage N. Essentials of Dental Radiography and Radiology. Churchill Livingstone Elsevier 2013<br>2. White SC., Pharoah MJ. Oral Radiology — principles and interpretation. Elsevier Mosby 2013<br>3. Langlais RP., Miller C. Exercises in Oral Radiology and Interpretation Elsevier 2017 |
| <b>Supplementary</b>  |
| 1. Coulthard P, Horner K, Sloan P, Theaker E. Master dentistry, volume one: Oral and maxillofacial surgery, radiology, pathology and oral medicine. Churchill Livingstone Elsevier 2008   |

| <b>8. VERIFYING THE EFFECT OF LEARNING</b>   |  |  |
|--|--|--|
| Code of the course<br>effect of learning   | Ways of verifying the effect of learning   | Completion criterion   |
| A.W1.<br>B.W9.<br>E.W20.<br>F.W18.<br>G.W34.<br>A.U1.<br>E.U1.<br>E.U3.<br>E.U5.<br>F.U11.<br>F.U18.<br>G.U26. | The Colloquium is organized by the Office of Quality and Innovation.<br>The colloquium (for a total of 60 minutes) consists of three parts:<br>1. Multiple choice test (all combinations possible - from all incorrect to all correct), 10 questions, 3 distractors, negative points (15 points).<br>2. Single choice (electronic) test (25 points)<br>One answer scheme for each question:<br>a) all;<br>b) II<br>c) III<br>d) I and II<br>e) I and III<br>and short answer questions - anatomy - terminology according to "Exercises in Oral Radiology and Interpretation" Robert P. Langlais, Craig Miller.<br>3. Practical part in the field of preparation of the report of intraoral and panoramic radiographs. (20 points).<br>The first and second term of the colloquium has a test form. In the case of failure, the colloquium can be held only with the consent of the Head of Department. | Colloquium - passing over 60% of points<br>Passing all the exercises (if the student is unprepared for the classes, the assistant may fail the classes! - should be passed with another group or in writing (paper, test / written test on a given issue - the assistant decides).<br>Students are obliged to pass all e-learning radiological courses as an unassisted student's work.<br>90% attendance is required (3 delays are treated as one absence!) |

| <b>9. ADDITIONAL INFORMATION</b> <i>(information essential for the course instructor that are not included in the other part of the course syllabus e.g. if the course is related to scientific research, detailed description of, information about the Science Club)</i>                               |
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| Classes are held in the classrooms of the Department of Dental and Maxillofacial Radiology MUW and synchronously online via Microsoft Teams.<br>An apron is required for the practical "patient examination" classes.<br>Person responsible for didactics: Anna Pogorzelska; anna.pogorzelska@wum.edu.pl |

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