



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT) General Information

| Module title: ORAL MICROBIOLOGY | |
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| Module type | Obligatory |
| Faculty PMU | Faculty of Medicine and Dentistry |
| Major | Dentistry |
| Level of study | long-cycle (S2J) |
| Mode of study | full-time studies |
| Year of studies, semester | Year II, semester 2 (summer) |
| ECTS credits (incl. semester breakdown) | 2 |
| Type/s of training | seminars (7hrs), e-learning (3hrs) / practical (20hrs) |
| Form of assessment* | <p>X graded assessment:</p> <p><input type="checkbox"/> descriptive</p> <p>X test</p> <p><input type="checkbox"/> practical</p> <p><input type="checkbox"/> oral</p> <p><input type="checkbox"/> non-graded assessment</p> <p><input type="checkbox"/> final examination</p> <p><input type="checkbox"/> descriptive</p> <p><input type="checkbox"/> test</p> <p><input type="checkbox"/> practical</p> <p><input type="checkbox"/> oral</p> |
| Head of the Department/ Clinic, Unit | dr n. med. Joanna Jursa-Kulesza asiaju@pum.edu.pl |
| Tutor responsible for the module | dr n. med. Magdalena Mnichowska-Polanowska magdalena.polanowska@pum.edu.pl 91 466 16 52 |
| Department's/ Clinic's/ Unit's website | Samodzielna Pracownia Mikrobiologii Lekarskiej |
| Language | https://www.pum.edu.pl/studia_iii_stopnia/informacje_z_jednostek/wmi/katedra_mikrobiologii_immunologii_i_medycyny_laboratoryjnej/samodzielna_pracownia_mikrobiologii_lekarskiej/ |

* replace into where applicable

Detailed information

| | | |
|--------------------------------------|-------------|---|
| Module objectives | | <p>The aim of the oral microbiology course is :</p> <ol style="list-style-type: none"> 1) to evaluate state of oral cavity in the health and in disease and to predict the risk of oral infection and their systemic complications 2) to know distribution, development and benefits of the oral microbiota 3) to explain the complex relationship between resident oral microbiota and the host in health and disease 4) discuss the role of oral microorganisms in dental caries, periodontal diseases, dentoalveolar infections, their pathogenicity, laboratory diagnosis and susceptibility to antimicrobial drugs 5) to know oral clinical manifestation, diagnosis and therapy of oral infections with bacterial, viral and fungal etiology 6) to collect the appropriate oral samples in the course of oral infections with microbial etiology 7) learn how to manage antimicrobial therapy of oral infections with microbial etiology 8) to propose general therapy protocols of oral and systemic infections <p>to learn students about control of dental healthcare- and nosocomial infections</p> |
| Prerequisite /essential requirements | Knowledge | Knowledge about human microbiota and pathogens (bacteria, fungi, viruses) with their pathogenicity factors as well as scheme of microbiological lab processing are crucial to take the oral microbiology course. Basic knowledge about antibiotics' classification, mechanism and mode of their action is required |
| | Skills | Microscope operating, biological samples safe handling, compliance with microbiological safety rules, self-preparation of Gram-stained smears, filling of request form for microbiological examination, general interpretation of microbiological report |
| | Competences | Self- education, integration of the knowledge obtained on other preclinical courses , co-operation with team members (class-mates) |

| Description of the learning outcomes for the subject /module | | | |
|--|--|----------------------------------|--|
| No. of learning outcome | Student, who has passed the (subject) knows /is able to /can: | SYMBOL (referring the standards) | Method of verification of learning outcomes* |
| W01 | knows and understands viral, bacterial and mycotic flora of oral cavity and importance thereof | F.W3. | ZT/W/O/RZĆ |
| W02 | knows and understands symptoms, course and treatment methods of specified diseases of oral cavity, head and neck with regard to age groups | F.W4. | ZT/W/O/RZĆ |
| W03 | knows and understands diagnostics and treatment of periodontal and oral mucosa diseases | F.W9. | ZT/W/O/RZĆ |
| W04 | knows and understands bases for antibiotic therapy and antibiotic resistance | F.W13. | ZT/W/O/RZĆ |
| W05 | knows and understands pathomechanism of oral cavity diseases' influence on general health state | F.W19. | ZT/W/O/RZĆ |

| | | | |
|-----|---|--------|------------|
| W06 | knows and understands prophylaxis of oral cavity diseases | F.W21. | ZT/W/O/RZĆ |
| W07 | knows and understands principles of management of masticatory system tissues diseases, teeth and jaw bone trauma | F.W22. | ZT/W/O/RZĆ |
| U01 | is able to sample and protect material for diagnostic tests, including cytology | F.U5. | W/O/S/RZĆ |
| U02 | is able to interpret results of auxiliary diagnostics and consultations | F.U6. | W/O/S/RZĆ |
| U03 | is able to prescribe medicines taking into account their interactions and side effects | F.U10. | W/O/S/RZĆ |
| U04 | is able to assess risk of caries applying microbiological and salivary tests | F.U14. | W/O/S/RZĆ |
| K01 | is ready to notice and recognize own limitations, make self-assessment of educational deficits and needs | K.5. | O/RZĆ |
| K02 | is ready to draw conclusions from own measurements or observations | K.8. | O/RZĆ |
| K03 | is ready to implement the principles of professional fellowship and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment | K.9. | O/RZĆ |

Table presenting LEARNING OUTCOMES in relation to the form of classes

| No. of learning outcome | Learning outcomes | Type of training | | | | | | |
|-------------------------|-------------------|------------------|---------|-------------------|------------------|-------------|------------|----------|
| | | Lecture | Seminar | Practical classes | Clinical classes | Simulations | E-learning | Other... |
| W01 | F.W3. | | X | X | | | | |
| W02 | F.W4. | | X | X | | | X | |
| W03 | F.W9. | | X | X | | | X | |
| W04 | F.W13. | | X | X | | | X | |
| W05 | F.W19. | | X | X | | | | |
| W06 | F.W21. | | X | X | | | | |
| W07 | F.W22. | | X | X | | | X | |
| U01 | F.U5. | | | X | | | | |
| U02 | F.U6. | | | X | | | | |
| U03 | F.U10. | | | X | | | | |
| U04 | F.U14. | | | X | | | | |
| K01 | K.5. | | | X | | | | |
| K02 | K.8. | | | X | | | | |
| K03 | K.9. | | | X | | | | |

Table presenting TEACHING PROGRAMME

| No. of a teaching programme | Teaching programme | No. of hours | References to learning outcomes |
|-----------------------------|--------------------|--------------|---------------------------------|
| Summer semester | | | |
| Seminars | | | |

| | | | |
|--------------------------|--|---|--|
| TK01 | Oral ecosystem | 1 | F.W3 |
| TK02 | Microbiology of dental caries and dentoalveolar infections | 1 | F.W3./ F.W4./ F.W9./ F.W19./ F.W21. |
| TK03 | Blood and CNS infections | 2 | F.W19./F.W21. |
| TK04 | Oral mucosal and salivary gland infections. Other oral infections | 1 | F.W3./ F.W4. |
| TK05 | Respiratory tract infections | 1 | F.W3./ F.W4. /F.W13 |
| TK06 | Rules of infection control. Disinfection and sterilization in dentistry | 1 | F.W4./F.W13./ F.W22 |
| e-learning | | | |
| TK07 | Chemotherapy in oral infections and soft-tissue infections of a head and neck | 3 | F.W4./ F.W9./ F.W13./ F.W22. |
| Practical classes | | | |
| TK01 | Oral ecosystem | 3 | F.W3./F.U5./ K.8./ K.9 |
| TK02 | Microbiology of dental caries and dentoalveolar infections | 2 | F.W21./ F.W22./ F.U10. /F.U14./K.9 |
| TK03 | Microbiology of periodontal diseases and their complications – students' presentations | 4 | F.W4./ F.W19./ F.W21. /F.U5./F.U6./F.U10./K.9. |
| TK04 | Blood and CNS infections | 2 | F.U5./ F.U10./ K.8./ K.9 |
| TK05 | Oral mucosal and salivary gland infections. Other oral infections | 3 | F.U5./ F.U10./K.8./ K.9. |
| TK06 | Respiratory tract infections | 3 | F.U5./ F.U6./F.U10./K.8./K.9 |
| TK07 | Rules of infection control. Disinfection and sterilization in dentistry | 3 | K.8./K.9. |

Booklist

Obligatory literature:

1. Oral Microbiology – P.D. Marsh, M.V. Martin, 2016, 6th ed, ISBN: ISBN 9780702061066
2. L. Samaranyake. Essential Microbiology for Dentistry- 2018, 5th ISBN: 9780702074356

Supplementary literature:

1. Notes on Medical Microbiology – K.N. Ward, K.C. McCartney, B. Thakker, 2008, ISBN 9780443102844
2. Extra updated handouts from teacher.

Student's workload

| Form of student's activity (in-class participation; activeness, produce a report, etc.) | Student's workload [h] |
|--|------------------------|
| | Tutor |
| Contact hours with the tutor | 30 |
| Time spent on preparation to seminars/ practical classes | 16 |
| Time spent on reading recommended literature | 10 |
| Time spent on writing report/making project | 2 |
| Time spent on preparing to colloquium/ entry test | 14 |

| | |
|--|-----|
| Time spent on preparing to exam | 30 |
| Other | |
| Student's workload in total | 102 |
| ECTS credits for the subject (in total) | 2 |
| Remarks | |
| | |

* Selected examples of methods of assessment:

EP – written examination

EU – oral examination

ET – test examination

EPR – practical examination

K – colloquium

R – report

S – practical skills assessment

RZC – practical classes report, incl. discussion on results

O – student's active participation and attitude assessment

SL – lab report

SP – case study

PS - assessment of student's ability to work independently

W – entry test

PM – multimedial presentation

ZT – final test

Other...