



# Pomeranian Medical University in Szczecin

## SYLLABUS of the MODULE (SUBJECT)

### General Information

| Code                             |  | Title | <b>Ophthalmology</b>  |
|----------------------------------|--|-------|---|
| Module type                      |  |       | <i>Obligatory</i>   |
| Faculty                          |  |       | <i>Faculty of Medicine</i>  |
| Field of study                   |  |       | <i>medicine</i>   |
| Major                            |  |       | <i>Not applicable</i>   |
| Level of study                   |  |       | <i>II level/ long-cycle (S2J)</i>   |
| Mode of study                    |  |       | <i>intramural</i>   |
| Year of study                    |  |       | <i>4</i>  |
| Semester                         |  |       | <i>block</i>  |
| ECTS points                      |  |       | <i>4</i>  |
| Types of training                |  |       | Sem. 21hrs + pract. 39hrs   |
| Tutor responsible for the module |  |       | PROF. Wojciech Lubiński MD PhD FEBO<br>oko@pum.edu.pl   |
| Tutors conducting the subject    |  |       | Prof. dr hab. n. med. D. Czepita<br>Prof. dr hab. n. med. W. Lubiński FEBO<br>Prof. dr hab. n. med. A. Machalińska FEBO<br>Dr hab. n. med. M. Modrzejewska prof. PUM<br>Dr n. med. W. Gosławski FEBO<br>Dr n. med. K. Podborczyńska-Jodko FEBO<br>Dr n. med. K. Mozolewska-Piotrowska<br>Dr n. med. K. Krasodomska<br>Dr n. med. M. Kirkiewicz<br>Lek. E. Lachowicz<br>Lek. E. Krytkowska<br>Lek. A. Zakrzewska<br>Lek. T. Kubacki<br>Lek. M. Wiącek<br>Lek. A. Łokociejewska<br>Lek. E. Grudzińska |
| WWW                              |  |       | <i>www.pum.edu.pl</i>   |
| Language                         |  |       | <i>English</i>  |

### Detailed information

|                                      |             |   |
|--------------------------------------|-------------|---|
| Module objectives                    |             | <ol style="list-style-type: none"> <li>1. To understand steps of ophthalmological examination</li> <li>2. To understand possibility of refraction correction.</li> <li>3. To know basic diagnostic procedures in ophthalmology</li> <li>4. To know pathophysiology, symptoms and eye disease treatment.</li> <li>5. To know rules of the eye trauma diagnosis and treatment.</li> </ol> <p>Practical knowledge: instillation of the drops, reversion of the eyelids</p> |
| Prerequisite /essential requirements | Knowledge   | Student has general knowledge of visual system anatomy and physiology   |
|                                      | Skills      | Student know how to take medical history and interpret acquired information   |
|                                      | Competences | Student understands and complies with patient's rights i.e. right to protect personal data, rights of privacy, right of information on health state, right to express conscious consent to treatment. Has ability to create respectful relationship with patient caring for his/her wealth and dignity.   |

| Description of the learning outcomes for the subject /module |   |   |   |
|--|---|---|---|
| Number of learning outcome                                   | Student, who has passed the (subject)<br>Knows /is able to /can:  | SYMBOL (referring the standards)<br>EKK | Method of verification of learning outcomes |
| W1   | They know the rules of eye disorders and trauma   | K_F. W11, K_F.U20                       | E   |
| W2   | They know the importance of periocular infections   | K_F. W11                                | E   |
| W3   | They know the most common bacterial, viral and fungal pathogens in ophthalmology                            | K_F. W11                                | E   |
| W4   | They know when they should send the patient to the hospital   | K_F.U20, K_K17                          | E   |
| U1   | They are able to describe and diagnose some of the eye optic and adnexal system diseases and plan treatment | K_F. W11, K_F.U19                       | S   |
| U2   | They are able to comment on additional diagnostic tests and investigations                                  | K_F.U19, K_F.U20                        | S   |
| U3   | They are able to comment on the results of laboratory investigations  | K_F.U19, K_F.U20                        | S   |

|           |  |              |   |
|-----------|--|--------------|---|
| <b>K1</b> | They are prepared to work with other consultants in multiculture environment | K_K04, K_K18 | S |
|-----------|--|--------------|---|

**Matrix presenting the learning outcomes of the subject/module in relation to the form of classes**

| Number of learning outcome | Student, who has passed the (subject)<br>Knows /is able to /can:  | Types of training |         |                    |              |                  |         |                   |       |
|----------------------------|---|-------------------|---------|--------------------|--------------|------------------|---------|-------------------|-------|
|                            |   | Lecture           | Seminar | Laboratory classes | Project work | Clinical classes | Classes | Practical classes | Other |
| <b>W1</b>                  | They know the rules of eye disorders and trauma   |                   | x       |                    |              |                  |         |                   |       |
| <b>W2</b>                  | They know the importance of periocular infections   |                   | x       |                    |              |                  |         |                   |       |
| <b>W3</b>                  | They know the most common bacterial, viral and fungal pathogens in ophthalmology                            |                   | x       |                    |              |                  |         |                   |       |
| <b>W4</b>                  | They know when they should send the patient to the hospital   |                   | x       |                    |              |                  |         |                   |       |
| <b>U1</b>                  | They are able to describe and diagnose some of the eye optic and adnexal system diseases and plan treatment |                   |         |                    |              |                  | x       |                   |       |
| <b>U2</b>                  | They are able to comment on additional diagnostic tests and investigations                                  |                   |         |                    |              |                  | x       |                   |       |
| <b>U3</b>                  | They are able to comment on the results of laboratory investigations  |                   |         |                    |              |                  | x       |                   |       |
| <b>K1</b>                  | They are prepared to work with other consultants in multiculture environment                                |                   |         |                    |              |                  | x       |                   |       |

**Module (subject) contents**

| Symbol of teaching programme | Content of teaching programme         | References to learning outcomes |
|------------------------------|---------------------------------------|---------------------------------|
| TK01                         | Physiology, Optics, Refractive errors | W1, U1, U2, U3                  |
| TK02                         | Anterior segment, Traumas             | W1, W2, W3, W4, U1, U2, U3,     |
| TK03                         | Sclera, eyelid, conjunctiva, cornea   | W1, W2, W3, W4, U1, U2, U3,     |
| TK04                         | Lens, Cataract                        | W1, W2, W3, W4, U1, U2, U3      |
| TK05                         | Orbit, Tumors                         | W1, W2, W3, W4, U1, U2, U3      |
| TK06                         | Fundus, part 1                        | W1, W3, W4, U1, U2, U3, K1      |
| TK07                         | Fundus, part 2                        | W1, W3, W4, U1, U2, U3, K1      |

|  |  |                                |         |         |
|--|--|--------------------------------|---------|---------|
| TK08   | Glaucoma   | W1, U1, U2, U3                 |         |         |
| TK09   | Vitrectomy   | W1, W3, W4, U1, U2, U3         |         |         |
| Cw 1   | Medical history of patients with eye diseases. Examinations of the eye and adnexa in natural light.        | W1, W2, W3, W4, U1, U2, U3, K1 |         |         |
| cw2  | Repetition of anatomy. Procedures in ophthalmology. Eye drugs.   | W1, U1, U2, U3                 |         |         |
| cw3  | Examination of visual acuity and refraction. Prescription of spectacles.                                   | W1, U1, U2, U3                 |         |         |
| cw4  | Accommodation. Pupil reflexes. Exophthalmometer.   | W1, W4, U1, U2, U3             |         |         |
| cw5  | Intraocular pressure measurements. Operating theatre.  | W1, W4, U1, U2, U3             |         |         |
| cw6  | Visual field and color vision examination. Electrophysiology.  | W1, W4, U1, U2, U3             |         |         |
| cw7  | Biomicroscopy.   | W1, W2, W3, W4, U1, U2, U3     |         |         |
| cw8  | Direct and indirect ophthalmoscopy.  | W1, W2, W3, W4, U1, U2, U3, K1 |         |         |
| cw9  | Examination of a strabismus patient. Latent and manifest squint. Binocular vision. Localization. Diplopia. | W1, W2, W3, W4, U1, U2, U3, K1 |         |         |
| cw10   | Laser. Angiography. Ultrasonography.   | W1, W2, W3, W4, U1, U2, U3, K1 |         |         |
| References and educational resources   |  |                                |         |         |
| James B., Chew C., Bron A.: Lecture notes on ophthalmology (Blackwell Science Ltd., Oxford 1997) |  |                                |         |         |
| Tarkkanen A.: Principles of ophthalmology (Recallmed Ltd., Vaasa 1995)                           |  |                                |         |         |
| Kański J.J.: Clinical ophthalmology (Butterworth – Heinemann Ltd., Oxford 1994)                  |  |                                |         |         |
| Student’s workload (balance sheet of ECTS points)  |  |                                |         |         |
| Form of student’s activity<br>(in-class participation; activeness, produce a report, etc.)       |  | Workload [h]                   |         |         |
|  |  | Tutor                          | Student | Average |
| activities that require direct participation of tutors   |  | 60                             | 60      | 60      |
| Preparation to the classes   |  | 10                             | 20      | 15      |
| Reading of the indicated/specified literature  |  | 10                             | 20      | 15      |
| Report writing/project making  |  | 1                              | -       | 1/2     |
| Time spent to prepare for the exam   |  | 2                              | 30      | 16      |
| Other  |  | -                              | -       | -       |
|  |  |                                |         |         |
| Student’s workload in total  |  |                                | 130     |         |
| ECTS points for the subject  |  | 4                              |         |         |
| Remarks at the end   |  |                                |         |         |
|  |  |                                |         |         |

Methods of assessment, for example:

E – exam- problem resolving

S – verifying of practical skills

R – report

D – discussion

P – presentation  
Others-