| University: P. J. Šafá   | rik University in Koš   | ice   |
|--|---|---|
| Faculty: Faculty of S  | cience  |   |
| Course ID: ÚCHV/<br>CDC/04   | rse ID: ÚCHV/ Course name: Citation in the Local Scientific Journal |   |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                                      |   |
| Number of credits: 5   | ;<br>   |   |
| Recommended seme   | ster/trimester of the   | course:   |
| Course level: III.   |   |   |
| Prerequisities:  |   |   |
| <b>Conditions for cours</b>  | e completion:   |   |
| Learning outcomes:   |   |   |
| Brief outline of the c   | ourse:  |   |
| Recommended litera   | ture:   |   |
| Course language:   |   |   |
| Course assessment Total number of asse   | ssed students: 1  |   |
|  | abs n   |   |
|  | 100.0 0.0   |   |
| Provides:  |   | <u> </u>  |
| Date of last modifica  | tion: 27.02.2017  |   |
| <b>Approved:</b> Guarantec<br>Martinková, PhD.Co-  | 1   | onda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/ Co

Course name: Saccharides

CHSA/04

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours): Per week: 2 / 2 Per study period: 28 / 28

Course method: present

**Number of credits: 8** 

#### Recommended semester/trimester of the course:

Course level: III.

#### **Prerequisities:**

#### **Conditions for course completion:**

Seminar written discussion. Terminal examination by written form.

#### **Learning outcomes:**

The general review on carbohydrate chemistry and application of simple saccharide molecules as building blocks (chiral-pool approach) in modern organic synthesis for the construction of more complex natural and unnatural structures.

#### **Brief outline of the course:**

General introduction, nomenclature of monosaccharides, configuration and stereochemistry of monosaccharides (the Fischer projection, the Haworth projection, conformation of sugars). Reactions of monosaccharides (reactions of carbonyl groups and hydroxyl groups, protective group strategies, production of ethers, esters, acetals, ketals. Monosaccharide derivatives, their nomenclature and preparation. Ascending and descending reactions of monosaccharides. Functionalization of saccharides. Nucleophilic substitutions, oxidations, reaction of the anomeric carbon. Glycosylation methods. Synthesis of C-, N- and O-glycosides. Oligosaccharide synthesis. Application of monosaccharides and their derivatives as the chiral templates in the stereoselective organic synthesis.

#### **Recommended literature:**

Levy, D. E., Fügedi, P.: The organic chemistry of sugars. Taylor & Francis Group, LLC 2006, ISBN: 0-8247-5355-0.

- 2. El Khadem, H. S.: Carbohydrate Chemistry: Monosaccharides and Their Oligomers. Academic Press 1988, INC. (London) Ltd., ISBN: 0-12-236870-3.
- 3. Miljković, M.: Carbohydrates. Synthesis, mechanisms and stereoelectronic effects. Springer Science and Business Media, LLC, New York, 2009. ISBN: 978-0-387-92265-2.

#### Course language:

#### Course assessment

Total number of assessed students: 18

| Total halloof of abbedded statems. To |       |
|---------------------------------------|-------|
| N                                     | P     |
| 0.0                                   | 100.0 |

Provides: doc. RNDr. Miroslava Martinková, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava

Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc.

| University: P. J. Šafárik University in Košice   |   |   |  |
|--|---|---|--|
| Faculty: Faculty of Science  |   |   |  |
| Course ID: ÚCHV/<br>CM/04  | Course ID: ÚCHV/ Course name: Citation in the Monograph |   |  |
| Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present              |   |   |  |
| Number of credits: 2   | 20  |   |  |
| Recommended seme   | ster/trimester of the course                            | : |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| Conditions for cours   | e completion:   |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the c   | ourse:  |   |  |
| Recommended litera   | iture:  |   |  |
| Course language:   |   |   |  |
| Course assessment Total number of assessed students: 3   |   |   |  |
|  | abs n   |   |  |
| 100.0 0.0  |   |   |  |
| Provides:  |   |   |  |
| Date of last modification: 27.02.2017  |   |   |  |
| <b>Approved:</b> Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc. |   |   |  |

| University: P. J. Šafá   | rik University in Ko                                       | ošice  |  |
|--|--|--|--|
| Faculty: Faculty of S  | cience   |  |  |
| Course ID: ÚCHV/<br>CPC/04   | Course ID: ÚCHV/ Course name: Chiral auxiliaries & ligands |  |  |
| Course type, scope a<br>Course type: Lectur<br>Recommended cour<br>Per week: 2/2 Per<br>Course method: pre | re / Practice<br>rse-load (hours):<br>study period: 28 / 2 | 28   |  |
| Number of credits: 8   | 3  |  |  |
| Recommended seme   | ster/trimester of th                                       | ne course:                                   |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| Conditions for cours   | se completion:   |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the c   | ourse:   |  |  |
| Recommended litera   | Recommended literature:                                    |  |  |
| Course language:   |  |  |  |
| Course assessment Total number of asse   | ssed students: 29  |  |  |
|  | N P  |  |  |
|  | 0.0 100.0  |  |  |
| Provides: prof. RND  | Provides: prof. RNDr. Jozef Gonda, DrSc.                   |  |  |
| Date of last modifica  | ation: 24.02.2017  |  |  |
| <b>Approved:</b> Guarantee   | *  | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá  | rik University in Ko  | ošice  |  |
|---|---|--|--|
| Faculty: Faculty of S   | cience  |  |  |
| Course ID: ÚCHV/<br>CZC/04  | HV/ Course name: Citation in the International Scientific Journal |  |  |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:<br>esent                          |  |  |
| Recommended seme  | ster/trimester of tl  | ne course:                                   |  |
| Course level: III.  |   |  |  |
| Prerequisities:   |   |  |  |
| <b>Conditions for cours</b>   | se completion:  |  |  |
| Learning outcomes:  |   |  |  |
| Brief outline of the c  | ourse:  |  |  |
| Recommended literature:   |   |  |  |
| Course language:  |   |  |  |
| Course assessment Total number of asse  | ssed students: 31   |  |  |
|   | abs   |  |  |
| 100.0 0.0   |   |  |  |
| Provides:   |   |  |  |
| Date of last modifica   | ntion: 27.02.2017   |  |  |
| <b>Approved:</b> Guarante   | -   | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafárik University in Košice   |  |       |  |
|--|--|-------|--|
| Faculty: Faculty of Science  |  |       |  |
| Course ID: ÚCHV/<br>DK/04  | Course ID: ÚCHV/ Course name: Local Conference DK/04 |       |  |
| Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present              |  |       |  |
| Number of credits: 2   | 2  |       |  |
| Recommended seme   | ester/trimester of the cou                           | irse: |  |
| Course level: III.   |  |       |  |
| Prerequisities:  |  |       |  |
| Conditions for cours   | se completion:                                       |       |  |
| Learning outcomes:   |  |       |  |
| Brief outline of the o   | ourse:   |       |  |
| Recommended litera   | ature:   |       |  |
| Course language:   | Course language:                                     |       |  |
| Course assessment Total number of asse   | ssed students: 91                                    |       |  |
|  | abs n  |       |  |
| 100.0 0.0  |  |       |  |
| Provides:  |  |       |  |
| Date of last modification: 27.02.2017  |  |       |  |
| <b>Approved:</b> Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc. |  |       |  |

| University: P. J. Šafá   | rik University in Koši                              | ce  |  |
|--|---|---|--|
| Faculty: Faculty of Science  |   |   |  |
| Course ID: ÚCHV/<br>DKC/04   | urse ID: ÚCHV/ Course name: Local Currented Journal |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:                     |   |  |
| Number of credits: 1   | 15  |   |  |
| Recommended seme   | ster/trimester of the                               | course:   |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| Conditions for cours   | se completion:                                      |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the c   | course:   |   |  |
| Recommended literature:  |   |   |  |
| Course language:   |   |   |  |
| Course assessment Total number of asses  | ssed students: 10                                   |   |  |
|  | abs n   |   |  |
| 100.0 0.0  |   |   |  |
| Provides:  |   | ·   |  |
| Date of last modifica  | ntion: 27.02.2017                                   |   |  |
| <b>Approved:</b> Guarantee Martinková, PhD.Co-   | 1   | onda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |  |

| University: P. J. Šafá   | rik University in Koši   | ce  |
|--|--|---|
| Faculty: Faculty of S  | cience   |   |
| Course ID: ÚCHV/<br>DKZU/04  | ID: ÚCHV/ Course name: Local Conference with Foreign Participation |   |
| Course type, scope a<br>Course type:<br>Recommended cour<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>y period:                                     |   |
| Number of credits: 4   | ļ<br>  |   |
| Recommended seme   | ster/trimester of the  | course:   |
| Course level: III.   |  |   |
| Prerequisities:  |  |   |
| <b>Conditions for cours</b>  | e completion:  |   |
| Learning outcomes:   |  |   |
| Brief outline of the c   | ourse:   |   |
| Recommended litera   | ture:  |   |
| Course language:   |  |   |
| Course assessment Total number of asse   | ssed students: 175   |   |
|  | abs n  |   |
| 100.0 0.0  |  |   |
| Provides:  |  | <u> </u>  |
| Date of last modifica  | tion: 27.02.2017   |   |
| <b>Approved:</b> Guarantee Martinková, PhD.Co-   | 1  | onda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |

| University: P. J. Šafá   | rik University in Ko            | šice   |  |
|--|---------------------------------|--|--|
| Faculty: Faculty of S  | cience                          |  |  |
| Course ID: ÚCHV/<br>DNC/04   |                                 |  |  |
| Course type, scope a<br>Course type:<br>Recommended cour<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period: |  |  |
| Number of credits: 5   | ;<br>                           |  |  |
| Recommended seme   | ster/trimester of th            | ne course:                                   |  |
| Course level: III.   |                                 |  |  |
| Prerequisities:  |                                 |  |  |
| Conditions for cours   | e completion:                   |  |  |
| Learning outcomes:   |                                 |  |  |
| Brief outline of the c   | Brief outline of the course:    |  |  |
| Recommended litera   | iture:                          |  |  |
| Course language:   |                                 |  |  |
| Course assessment Total number of asse   | ssed students: 17               |  |  |
|  | abs n                           |  |  |
| 100.0 0.0  |                                 |  |  |
| Provides:  |                                 |  |  |
| Date of last modifica  | tion: 27.02.2017                |  |  |
| <b>Approved:</b> Guarantee   | 1                               | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá   | rik University in Košice       |    |  |
|--|--------------------------------|----|--|
| Faculty: Faculty of Science  |                                |    |  |
| Course ID: ÚCHV/<br>DZS/15   |                                |    |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre   | rse-load (hours):<br>y period: |    |  |
| Number of credits: 5   |                                |    |  |
| Recommended seme   | ster/trimester of the cours    | e: |  |
| Course level: III.   |                                |    |  |
| Prerequisities:  |                                |    |  |
| Conditions for cours   | e completion:                  |    |  |
| Learning outcomes:   |                                |    |  |
| Brief outline of the c   | ourse:                         |    |  |
| Recommended literature:  |                                |    |  |
| Course language:   | Course language:               |    |  |
| Course assessment Total number of asses  | ssed students: 27              |    |  |
|  | N P                            |    |  |
| 0.0 100.0  |                                |    |  |
| Provides:  |                                |    |  |
| Date of last modification: 24.02.2017  |                                |    |  |
| <b>Approved:</b> Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc. |                                |    |  |

University: P. J. Šafárik University in Košice

Faculty: Faculty of Science

Course ID: ÚCHV/

Course name: Nitrogen heterocycles

HZD/04

Course type, scope and the method: Course type: Lecture / Practice Recommended course-load (hours):

Per week: 2 / 2 Per study period: 28 / 28

Course method: present

**Number of credits: 8** 

#### Recommended semester/trimester of the course:

Course level: III.

#### **Prerequisities:**

#### **Conditions for course completion:**

Seminar written discussion.

Terminal examination by written form.

#### **Learning outcomes:**

The aim of the course is to obtain the knowlegde about nitrogen heterocycles, their synthesis, reactivity as well as relationship between structure and biological properties.

#### **Brief outline of the course:**

Signification, synthesis and chemical properties of derivatives of Pyrrole, Indole, Pyridine, Acridine, Pyrimidine and purine. Natural products containing nitrogen heterocycles, biological activity a drugs.

#### **Recommended literature:**

- 1. Comprehensive Heterocyclic Chemistry; Katritzky A. R., Rees C. W., Eds., Pergamon Press, Oxford, 1984.
- 2. Gilchrist T. L.: Heterocyclic Chemistry, Longman, Harlow, 1992.
- 3. Eichler T., Hauptmann S.: The Chemistry of Heterocycles, Wiley-VCH, Weinheim 2003.

#### Course language:

Slovak and English

#### Course assessment

Total number of assessed students: 16

| N   | P     |
|-----|-------|
| 0.0 | 100.0 |

Provides: RNDr. Mariana Budovská, PhD.

Date of last modification: 24.02.2017

Approved: Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava

Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc.

| University: P. J. Šafá   | rik University in Košice                           |  |  |
|--|--|--|--|
| Faculty: Faculty of Science  |  |  |  |
| Course ID: ÚCHV/<br>IG/04  | Course name: Acquirement of Internal Grant         |  |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                     |  |  |
| Number of credits: 1   | 0  |  |  |
| Recommended seme   | ster/trimester of the co                           | irse:  |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| <b>Conditions for cours</b>  | e completion:                                      |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the c   | ourse:   |  |  |
| Recommended litera   | Recommended literature:                            |  |  |
| Course language:   | Course language:                                   |  |  |
| Course assessment Total number of asse   | ssed students: 163                                 |  |  |
|  | abs n  |  |  |
| 100.0 0.0  |  |  |  |
| Provides:  |  |  |  |
| Date of last modifica  | tion: 27.02.2017                                   |  |  |
|  | eprof. RNDr. Jozef Gond<br>guaranteedoc. RNDr. Jár | a, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Imrich, CSc. |  |

| University: P. J. Šafárik University in Košice  |   |  |  |
|---|---|--|--|
| Faculty: Faculty of S   | Faculty: Faculty of Science                               |  |  |
| Course ID: ÚCHV/<br>MK/04   |   |  |  |
| Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present |   |  |  |
| Number of credits: 6  | )   |  |  |
| Recommended seme  | ster/trimester of the cours                               | e:   |  |
| Course level: III.  |   |  |  |
| Prerequisities:   |   |  |  |
| Conditions for course completion:   |   |  |  |
| Learning outcomes:  |   |  |  |
| Brief outline of the course:  |   |  |  |
| Recommended literature:   |   |  |  |
| Course language:  |   |  |  |
| Course assessment Total number of asse  | ssed students: 182  |  |  |
|   | abs   |  |  |
|   | 100.0 0.0   |  |  |
| Provides:   |   |  |  |
| Date of last modifica   | tion: 27.02.2017  |  |  |
|   | eprof. RNDr. Jozef Gonda, l<br>guaranteedoc. RNDr. Ján In | DrSc.Co-guaranteedoc. RNDr. Miroslava<br>nrich, CSc. |  |

| University: P. J. Šafá  | rik University in Košice                                    |                                       |  |
|---|---|---------------------------------------|--|
| Faculty: Faculty of S   | cience  |                                       |  |
| Course ID: ÚCHV/<br>MOZ/04  |   |                                       |  |
| Course type, scope a<br>Course type: Lectur<br>Recommended cou<br>Per week: 2 / 2 Per<br>Course method: pre | re / Practice<br>rse-load (hours):<br>study period: 28 / 28 |                                       |  |
| Number of credits: 8  | 3   |                                       |  |
| Recommended seme  | ster/trimester of the cours                                 | e:                                    |  |
| Course level: III.  |   |                                       |  |
| Prerequisities:   |   |                                       |  |
| Conditions for cours  | Conditions for course completion:                           |                                       |  |
| Learning outcomes:  |   |                                       |  |
| Brief outline of the course:  |   |                                       |  |
| Recommended literature:   |   |                                       |  |
| Course language:  |   |                                       |  |
| Course assessment Total number of asse  | ssed students: 1  |                                       |  |
|   | N P   |                                       |  |
|   | 0.0 100.0   |                                       |  |
| <b>Provides:</b> prof. RND  | r. Jozef Gonda, DrSc.                                       |                                       |  |
| Date of last modifica   | tion: 24.02.2017  |                                       |  |
|   | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján In   | DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá  | rik University in Ko                    | šice   |  |
|---|---|--|--|
| Faculty: Faculty of S   | cience                                  |  |  |
| Course ID: ÚCHV/<br>NEM/04  | r i i i i i i i i i i i i i i i i i i i |  |  |
| Course type, scope a<br>Course type:<br>Recommended cou<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period:         |  |  |
| Number of credits: 1  | .5                                      |  |  |
| Recommended seme  | ster/trimester of th                    | e course:                                    |  |
| Course level: III.  |   |  |  |
| Prerequisities:   | Prerequisities:                         |  |  |
| Conditions for course completion:   |   |  |  |
| Learning outcomes:  |   |  |  |
| Brief outline of the course:  |   |  |  |
| Recommended literature:   |   |  |  |
| Course language:  |   |  |  |
| Course assessment Total number of asse  | ssed students: 7                        |  |  |
|   | abs n                                   |  |  |
| 100.0 0.0   |   |  |  |
| Provides:   |   | ·  |  |
| Date of last modifica   | tion: 27.02.2017                        |  |  |
| <b>Approved:</b> Guarante   | 1                                       | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá                 | rik University in Košice   |   |  |
|--|--|---|--|
| Faculty: Faculty of S                  | cience   |   |  |
| Course ID: ÚCHV/<br>NSVR/04            | Course name: High-resolution NMR spectroscopy                        |   |  |
| Course method: pre                     | re / Practice<br>rse-load (hours):<br>study period: 28 / 28<br>esent |   |  |
| Number of credits: 8                   |  |   |  |
|  | ster/trimester of the co   | urse:   |  |
| Course level: III.                     |  |   |  |
| Prerequisities:                        |  |   |  |
| Conditions for cours                   | se completion:   |   |  |
| Learning outcomes:                     | Learning outcomes:   |   |  |
| Brief outline of the c                 | ourse:   |   |  |
| Recommended litera                     | nture:   |   |  |
| Course language:                       |  |   |  |
| Course assessment Total number of asse | ssed students: 23  |   |  |
|  | N P  |   |  |
|  | 0.0 100.0  |   |  |
| Provides: doc. RNDr                    | . Ján Imrich, CSc.   | •   |  |
| Date of last modifica                  | ation: 24.02.2017  |   |  |
| * *                                    | eprof. RNDr. Jozef Gone<br>guaranteedoc. RNDr. Já                    | da, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>n Imrich, CSc. |  |

| University: P. J. Šafá  | rik University in Košice                               |                                       |
|---|--|---------------------------------------|
| Faculty: Faculty of S   | cience   |                                       |
| Course ID: ÚCHV/<br>NZ/04   | 0                |                                       |
| Course type, scope a<br>Course type:<br>Recommended cou<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period:                        |                                       |
| Number of credits: 2  |  |                                       |
| Recommended seme  | ster/trimester of the cour                             | se:                                   |
| Course level: III.  |  |                                       |
| Prerequisities:   |  |                                       |
| Conditions for course completion:   |  |                                       |
| Learning outcomes:  |  |                                       |
| Brief outline of the course:  |  |                                       |
| Recommended literature:   |  |                                       |
| Course language:  |  |                                       |
| Course assessment Total number of asse  | ssed students: 156                                     |                                       |
|   | abs  |                                       |
|   | 100.0 0.0  |                                       |
| Provides:   |  |                                       |
| Date of last modifica   | ation: 27.02.2017                                      |                                       |
|   | eprof. RNDr. Jozef Gonda,<br>guaranteedoc. RNDr. Ján I | DrSc.Co-guaranteedoc. RNDr. Miroslava |

| University: P. J. Šafá   | rik University in Košice                            |   |  |
|--|---|---|--|
| Faculty: Faculty of S  | Faculty: Faculty of Science                         |   |  |
| Course ID: ÚCHV/<br>ODZP/2014/15   | J J1  |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                      |   |  |
| Number of credits: 3   | 0   |   |  |
| Recommended seme   | ster/trimester of the cou                           | rse:  |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| Conditions for course completion:  |   |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the course:   |   |   |  |
| Recommended literature:  |   |   |  |
| Course language:   |   |   |  |
| Course assessment Total number of asses  | ssed students: 27                                   |   |  |
|  | N P   |   |  |
|  | 0.0 100.0   |   |  |
| Provides:  |   | ·   |  |
| Date of last modifica  | tion: 24.02.2017                                    |   |  |
| * *  | eprof. RNDr. Jozef Gonda<br>guaranteedoc. RNDr. Ján | , DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Imrich, CSc. |  |

| University: P. J. Šafá   | rik University in Košice                                    |                                       |  |
|--|---|---------------------------------------|--|
| Faculty: Faculty of S  | cience  |                                       |  |
| Course ID: ÚCHV/<br>PAKM/04  |   |                                       |  |
| Course type, scope a<br>Course type: Lectur<br>Recommended cour<br>Per week: 2 / 2 Per<br>Course method: pre | re / Practice<br>rse-load (hours):<br>study period: 28 / 28 |                                       |  |
| Number of credits: 8   |   |                                       |  |
| Recommended seme   | ster/trimester of the cours                                 | e <b>:</b>                            |  |
| Course level: III.   |   |                                       |  |
| Prerequisities:  |   |                                       |  |
| Conditions for cours   | Conditions for course completion:                           |                                       |  |
| Learning outcomes:   |   |                                       |  |
| Brief outline of the c   | ourse:  |                                       |  |
| Recommended literature:  |   |                                       |  |
| Course language:   |   |                                       |  |
| Course assessment Total number of asse   | ssed students: 4  |                                       |  |
|  | N P   |                                       |  |
|  | 0.0 100.0   |                                       |  |
| <b>Provides:</b> RNDr. Lad   | islav Janovec, PhD.   |                                       |  |
| Date of last modifica  | tion: 24.02.2017  |                                       |  |
| 1  | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján In   | DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá   | rik University in Koši                                 | ce   |  |
|--|--|--|--|
| Faculty: Faculty of Science  |  |  |  |
| Course ID: ÚCHV/<br>PDS/05   | ourse ID: ÚCHV/ Course name: Writing Dissertation Work |  |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                         |  |  |
| Number of credits: 2   | 20   |  |  |
| Recommended seme   | ster/trimester of the                                  | course:  |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| Conditions for course completion:  |  |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the course:   |  |  |  |
| Recommended literature:  |  |  |  |
| Course language:   |  |  |  |
| Course assessment Total number of asse   | ssed students: 80                                      |  |  |
|  | abs  |  |  |
|  | 100.0 0.0  |  |  |
| Provides:  |  |  |  |
| Date of last modifica  | tion: 27.02.2017                                       |  |  |
| <b>Approved:</b> Guaranteo Martinková, PhD.Co-   | 1  | nda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |  |

| University: P. J. Šafá                 | rik University in Košice   |                                       |  |
|--|--|---------------------------------------|--|
| Faculty: Faculty of S                  |  |                                       |  |
|  | r  |                                       |  |
| Course ID: ÚCHV/<br>POCE/04            | Course ID: ÚCHV/ Course name: Current topics in organic chemistry OCE/04 |                                       |  |
| Course method: pre                     | re / Practice<br>rse-load (hours):<br>study period: 28 / 28<br>esent     |                                       |  |
| Number of credits: 8                   |  |                                       |  |
| Recommended seme                       | ster/trimester of the cours  | e:                                    |  |
| Course level: III.                     |  |                                       |  |
| Prerequisities:                        |  |                                       |  |
| <b>Conditions for cours</b>            | Conditions for course completion:  |                                       |  |
| Learning outcomes:                     |  |                                       |  |
| Brief outline of the course:           |  |                                       |  |
| Recommended literature:                |  |                                       |  |
| Course language:                       |  |                                       |  |
| Course assessment Total number of asse | ssed students: 32  |                                       |  |
|  | N P  |                                       |  |
|  | 0.0 100.0  |                                       |  |
| <b>Provides:</b> prof. RND:            | r. Jozef Gonda, DrSc.  |                                       |  |
| Date of last modifica                  | tion: 24.02.2017   |                                       |  |
|  | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján Im                | OrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá   | rik University in Košio   | ce   |
|--|---|--|
| Faculty: Faculty of S  | cience  |  |
| Course ID: ÚCHV/<br>POVK/04  | <b>D:</b> ÚCHV/ <b>Course name:</b> Membership in a Conference organizing Committee |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:  |  |
| Number of credits: 2   |   |  |
| Recommended seme   | ster/trimester of the   | course:  |
| Course level: III.   |   |  |
| Prerequisities:  |   |  |
| <b>Conditions for cours</b>  | e completion:   |  |
| Learning outcomes:   |   |  |
| Brief outline of the c   | ourse:  |  |
| Recommended litera   | ture:   |  |
| Course language:   |   |  |
| Course assessment Total number of asse   | ssed students: 31   |  |
|  | abs   | n  |
|  | 100.0 0.0   |  |
| Provides:  |   |  |
| Date of last modifica  | tion: 27.02.2017  |  |
| * *  | eprof. RNDr. Jozef Go<br>guaranteedoc. RNDr   | nda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |

| University: P. J. Šafá   | rik University in Ko                                       | ošice  |  |
|--|--|--|--|
| Faculty: Faculty of S  | cience   |  |  |
| Course ID: ÚCHV/<br>PPC/04   | ourse ID: ÚCHV/ Course name: Direct Pedagogical Activities |  |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:                            |  |  |
| Number of credits: 1   |  |  |  |
| Recommended seme   | ster/trimester of th                                       | ne course:                                   |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| Conditions for course completion:  |  |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the course:   |  |  |  |
| Recommended literature:  |  |  |  |
| Course language:   |  |  |  |
| Course assessment Total number of asses  | ssed students: 329   |  |  |
|  | abs n  |  |  |
| 100.0 0.0  |  |  |  |
| Provides:  |  | ·  |  |
| Date of last modifica  | tion: 27.02.2017   |  |  |
| <b>Approved:</b> Guarantee   | 1  | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá   | rik University in Ko                                       | ošice  |  |
|--|--|--|--|
| Faculty: Faculty of S  | cience   |  |  |
| Course ID: ÚCHV/<br>PPC/04   | ourse ID: ÚCHV/ Course name: Direct Pedagogical Activities |  |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:                            |  |  |
| Number of credits: 1   |  |  |  |
| Recommended seme   | ster/trimester of th                                       | ne course:                                   |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| Conditions for course completion:  |  |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the course:   |  |  |  |
| Recommended literature:  |  |  |  |
| Course language:   |  |  |  |
| Course assessment Total number of asses  | ssed students: 329   |  |  |
|  | abs n  |  |  |
| 100.0 0.0  |  |  |  |
| Provides:  |  | ·  |  |
| Date of last modifica  | tion: 27.02.2017   |  |  |
| <b>Approved:</b> Guarantee   | 1  | Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá  | rik University in Košice                         |   |  |
|---|--|---|--|
| Faculty: Faculty of S   | cience   |   |  |
| Course ID: ÚCHV/<br>PVS/04  | ÚCHV/ Course name: Patents, Inventions, Software |   |  |
| Course type, scope a<br>Course type:<br>Recommended cou<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period:                  |   |  |
| Number of credits: 2  |  |   |  |
| Recommended seme  | ster/trimester of the co                         | ourse:  |  |
| Course level: III.  |  |   |  |
| Prerequisities:   |  |   |  |
| Conditions for cours  | e completion:                                    |   |  |
| Learning outcomes:  |  |   |  |
| Brief outline of the c  | ourse:   |   |  |
| Recommended litera  | iture:   |   |  |
| Course language:  | Course language:                                 |   |  |
| Course assessment Total number of asse  | ssed students: 0                                 |   |  |
|   | abs n  |   |  |
|   | 0.0  |   |  |
| Provides:   |  |   |  |
| Date of last modifica   | tion: 27.02.2017                                 |   |  |
| * *   | eprof. RNDr. Jozef Gon<br>guaranteedoc. RNDr. Já | da, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>n Imrich, CSc. |  |

| v   |   |                                       |  |
|---|---|---------------------------------------|--|
| University: P. J. Šafá  | rik University in Košice                                |                                       |  |
| Faculty: Faculty of S   | cience  |                                       |  |
| Course ID: ÚCHV/<br>RZ/04   |   |                                       |  |
| Course type, scope a<br>Course type:<br>Recommended cou<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period:                         |                                       |  |
| Number of credits: 5  | 5   |                                       |  |
| Recommended seme  | ster/trimester of the cours                             | e:                                    |  |
| Course level: III.  |   |                                       |  |
| Prerequisities:   |   |                                       |  |
| Conditions for course completion:   |   |                                       |  |
| Learning outcomes:  |   |                                       |  |
| Brief outline of the c  | ourse:  |                                       |  |
| Recommended litera  | Recommended literature:                                 |                                       |  |
| Course language:  |   |                                       |  |
| Course assessment Total number of asse  | ssed students: 240                                      |                                       |  |
|   | abs   |                                       |  |
|   | 100.0 0.0   |                                       |  |
| Provides:   |   |                                       |  |
| Date of last modifica   | ation: 27.02.2017                                       |                                       |  |
|   | eprof. RNDr. Jozef Gonda,<br>guaranteedoc. RNDr. Ján Ir | DrSc.Co-guaranteedoc. RNDr. Miroslava |  |

| University: P. J. Šafá   | rik University in Košice                                  |   |  |
|--|---|---|--|
| Faculty: Faculty of S  | cience  |   |  |
| Course ID: ÚCHV/<br>SCI/04   |   |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                            |   |  |
| Number of credits: 2   | 0   |   |  |
| Recommended seme   | ster/trimester of the cours                               | <b>:</b>  |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| Conditions for course completion:  |   |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the course:   |   |   |  |
| Recommended literature:  |   |   |  |
| Course language:   | Course language:  |   |  |
| Course assessment Total number of asse   | ssed students: 109  |   |  |
|  | abs   |   |  |
|  | 100.0 0.0   |   |  |
| Provides:  |   |   |  |
| Date of last modifica  | tion: 27.02.2017  |   |  |
| * *  | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján In | OrSc.Co-guaranteedoc. RNDr. Miroslava<br>rich, CSc. |  |

| University: P. J. Šafá   | rik University in Košice                                  |  |
|--|---|--|
| Faculty: Faculty of S  | cience  |  |
| Course ID: ÚCHV/<br>SDPR/04  |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                            |  |
| Number of credits: 2   |   |  |
| Recommended seme   | ster/trimester of the cours                               | :  |
| Course level: III.   |   |  |
| Prerequisities:  |   |  |
| Conditions for course completion:  |   |  |
| Learning outcomes:   |   |  |
| Brief outline of the course:   |   |  |
| Recommended literature:  |   |  |
| Course language:   |   |  |
| Course assessment Total number of asse   | ssed students: 328  |  |
|  | abs   |  |
|  | 99.7 0.3  |  |
| Provides:  |   |  |
| Date of last modifica  | tion: 27.02.2017  |  |
| * *  | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján Im | OrSc.Co-guaranteedoc. RNDr. Miroslava rich, CSc. |

| University: P. J. Šafá   | rik University in Košio   | ce   |  |
|--|---|--|--|
| Faculty: Faculty of S  | cience  |  |  |
| Course ID: ÚCHV/<br>SMPR/04  | ourse ID: ÚCHV/ Course name: Co-worker of an International Project MPR/04 |  |  |
| Course type, scope a<br>Course type:<br>Recommended cour<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>y period:  |  |  |
| Number of credits: 1   | 5   |  |  |
| Recommended seme   | ster/trimester of the   | course:  |  |
| Course level: III.   |   |  |  |
| Prerequisities:  |   |  |  |
| <b>Conditions for cours</b>  | Conditions for course completion:   |  |  |
| Learning outcomes:   |   |  |  |
| Brief outline of the c   | Brief outline of the course:  |  |  |
| Recommended litera   | ture:   |  |  |
| Course language:   |   |  |  |
| Course assessment Total number of asse   | ssed students: 32   |  |  |
|  | abs   |  |  |
|  | 100.0 0.0   |  |  |
| Provides:  |   | •  |  |
| Date of last modifica  | tion: 27.02.2017  |  |  |
| * *  | eprof. RNDr. Jozef Go<br>guaranteedoc. RNDr                               | nda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |  |

| University: P. J. Šafá   | rik University in Košice  |  |
|--|---|--|
| Faculty: Faculty of Science  |   |  |
| Course ID: ÚCHV/<br>SSOL/04  | ourse ID: ÚCHV/ Course name: Individual Study of Scientific Literature SOL/04 |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:  |  |
| Number of credits: 2   |   |  |
| Recommended seme   | ster/trimester of the cours   | e:   |
| Course level: III.   |   |  |
| Prerequisities:  |   |  |
| Conditions for course completion:  |   |  |
| Learning outcomes:   |   |  |
| Brief outline of the course:   |   |  |
| Recommended literature:  |   |  |
| Course language:   |   |  |
| Course assessment Total number of asse   | ssed students: 176  |  |
|  | abs n   |  |
|  | 100.0 0.0   |  |
| Provides:  |   |  |
| Date of last modifica  | tion: 27.02.2017  |  |
| * *  | eprof. RNDr. Jozef Gonda, I<br>guaranteedoc. RNDr. Ján Im                     | OrSc.Co-guaranteedoc. RNDr. Miroslava<br>urich, CSc. |

| University: P. J. Šafá   | rik University in Košice                            |   |  |
|--|---|---|--|
| Faculty: Faculty of Science  |   |   |  |
| Course ID: ÚCHV/<br>VBP/04   | CHV/ Course name: Supervision of Bachelor Thesis    |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                      |   |  |
| Number of credits: 6   | ,   |   |  |
| Recommended seme   | ster/trimester of the cou                           | rse:  |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| <b>Conditions for cours</b>  | Conditions for course completion:                   |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the c   | ourse:  |   |  |
| Recommended litera   | Recommended literature:                             |   |  |
| Course language:   | Course language:                                    |   |  |
| Course assessment Total number of asse   | ssed students: 273                                  |   |  |
|  | abs n   |   |  |
|  | 100.0 0.0   |   |  |
| <b>Provides:</b>   |   |   |  |
| Date of last modifica  | tion: 27.02.2017                                    |   |  |
|  | eprof. RNDr. Jozef Gonda<br>guaranteedoc. RNDr. Ján | , DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Imrich, CSc. |  |

| University: P. J. Šafá   | rik University in Koši                   | ce  |                 |
|--|--|---|-----------------|
| Faculty: Faculty of S  | cience                                   |   |                 |
| Course ID: ÚCHV/<br>VPBP/04  |  |   |                 |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:          |   |                 |
| Number of credits: 2   |  |   |                 |
| Recommended seme   | ster/trimester of the                    | course:   |                 |
| Course level: III.   |  |   |                 |
| Prerequisities:  |  |   |                 |
| Conditions for cours   | se completion:                           |   |                 |
| Learning outcomes:   |  |   |                 |
| Brief outline of the c   | ourse:                                   |   |                 |
| Recommended literature:  |  |   |                 |
| Course language:   |  |   |                 |
| Course assessment Total number of asses  | ssed students: 58                        |   |                 |
|  | abs n                                    |   | n               |
|  | 100.0 0.0                                |   | 0.0             |
| Provides:  |  | •   |                 |
| Date of last modifica  | tion: 27.02.2017                         |   |                 |
| 1  | eprof. RNDr. Jozef Goguaranteedoc. RNDr. | onda, DrSc.Co-guaranteedoc.<br>Ján Imrich, CSc. | RNDr. Miroslava |

| University: P. J. Šafá   | rik University in Košice                            |   |  |
|--|---|---|--|
| Faculty: Faculty of S  | Faculty: Faculty of Science                         |   |  |
| Course ID: ÚCHV/<br>VPSV/04  | 1   |   |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>y period:                      |   |  |
| Number of credits: 6   | <u> </u>  |   |  |
| Recommended seme   | ster/trimester of the cou                           | rse:  |  |
| Course level: III.   |   |   |  |
| Prerequisities:  |   |   |  |
| <b>Conditions for cours</b>  | Conditions for course completion:                   |   |  |
| Learning outcomes:   |   |   |  |
| Brief outline of the course:   |   |   |  |
| Recommended literature:  |   |   |  |
| Course language:   | Course language:                                    |   |  |
| Course assessment Total number of asses  | ssed students: 59                                   |   |  |
|  | abs n   |   |  |
|  | 100.0 0.0   |   |  |
| Provides:  |   |   |  |
| Date of last modifica  | tion: 27.02.2017                                    |   |  |
|  | eprof. RNDr. Jozef Gonda<br>guaranteedoc. RNDr. Ján | , DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Imrich, CSc. |  |

| University: P. J. Šafá   | rik University in Košio                                    | ce   |  |
|--|--|--|--|
| Faculty: Faculty of S  | cience   |  |  |
| Course ID: ÚCHV/<br>VYS/04   | ourse ID: ÚCHV/ Course name: Presentation in Seminar YS/04 |  |  |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours):<br>ly period:                            |  |  |
| Number of credits: 2   | 2  |  |  |
| Recommended seme   | ster/trimester of the                                      | course:  |  |
| Course level: III.   |  |  |  |
| Prerequisities:  |  |  |  |
| Conditions for cours   | Conditions for course completion:                          |  |  |
| Learning outcomes:   |  |  |  |
| Brief outline of the course:   |  |  |  |
| Recommended literature:  |  |  |  |
| Course language:   |  |  |  |
| Course assessment Total number of asse   | ssed students: 168   |  |  |
|  | abs n  |  |  |
|  | 100.0 0.0  |  |  |
| Provides:  |  |  |  |
| Date of last modifica  | ition: 27.02.2017  |  |  |
| * *  | eprof. RNDr. Jozef Go<br>guaranteedoc. RNDr                | nda, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Ján Imrich, CSc. |  |

| University: P. J. Šafá                 | rik University in Košice   |  |  |
|--|--|--|--|
|  |  |  |  |
|  | Faculty: Faculty of Science  |  |  |
| Course ID: UCHV/<br>ZKC/04             | ourse ID: ÚCHV/ Course name: International Currented Journal KC/04 |  |  |
| Course type, scope a                   | nd the method:   |  |  |
| Course type:                           |  |  |  |
| Recommended cou                        |  |  |  |
| Per week: Per stud                     | v <u>-</u>   |  |  |
| Course method: pre                     | esent  |  |  |
| Number of credits: 2                   | 20   |  |  |
| Recommended seme                       | ster/trimester of the co   | urse:  |  |
| Course level: III.                     |  |  |  |
| Prerequisities:                        |  |  |  |
| Conditions for cours                   | e completion:  |  |  |
| Learning outcomes:                     |  |  |  |
| Brief outline of the c                 | ourse:   |  |  |
| Recommended litera                     | iture:   |  |  |
| Course language:                       |  |  |  |
| Course assessment                      |  |  |  |
| Total number of assessed students: 224 |  |  |  |
|  | abs n  |  |  |
|  | 99.55 0.45   |  |  |
| Provides:                              |  | •  |  |
| Date of last modifica                  | tion: 27.02.2017   |  |  |
|  | eprof. RNDr. Jozef Gono<br>guaranteedoc. RNDr. Jái                 | a, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>n Imrich, CSc. |  |

| University: P. J. Šafá  | rik University in Košice                                  |  |  |
|---|---|--|--|
| Faculty: Faculty of S   | cience  |  |  |
| Course ID: ÚCHV/<br>ZNC/04  | D: ÚCHV/ Course name: International Non-Currented Journal |  |  |
| Course type, scope a<br>Course type:<br>Recommended cou<br>Per week: Per stud<br>Course method: pre | rse-load (hours):<br>ly period:<br>esent                  |  |  |
| Number of credits: 5  |   |  |  |
|   | ster/trimester of the co                                  | irse:  |  |
| Course level: III.  |   |  |  |
| Prerequisities:   |   |  |  |
| Conditions for cours  | se completion:  |  |  |
| Learning outcomes:  |   |  |  |
| Brief outline of the c  | ourse:  |  |  |
| Recommended literature:   |   |  |  |
| Course language:  | Course language:  |  |  |
| Course assessment Total number of asse  | ssed students: 15   |  |  |
|   | abs n   |  |  |
|   | 100.0 0.0   |  |  |
| Provides:   |   | <u> </u>   |  |
| Date of last modifica   | ation: 27.02.2017   |  |  |
| * *   | eprof. RNDr. Jozef Gond<br>guaranteedoc. RNDr. Jár        | a, DrSc.Co-guaranteedoc. RNDr. Miroslava<br>Imrich, CSc. |  |

| University: P. J. Šafárik University in Košice   |                                |  |     |
|--|--------------------------------|--|-----|
| Faculty: Faculty of Science  |                                |  |     |
| Course ID: ÚCHV/<br>ZSP/04   | Course name: Study Stay Abroad |  |     |
| Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present              |                                |  |     |
| Number of credits: 2   |                                |  |     |
| Recommended semester/trimester of the course:  |                                |  |     |
| Course level: III.   |                                |  |     |
| Prerequisities:  |                                |  |     |
| Conditions for course completion:  |                                |  |     |
| Learning outcomes:   |                                |  |     |
| Brief outline of the course:   |                                |  |     |
| Recommended literature:  |                                |  |     |
| Course language:   |                                |  |     |
| Course assessment Total number of assessed students: 71  |                                |  |     |
|  | abs                            |  | n   |
|  | 100.0                          |  | 0.0 |
| Provides:  |                                |  |     |
| Date of last modification: 27.02.2017  |                                |  |     |
| <b>Approved:</b> Guaranteeprof. RNDr. Jozef Gonda, DrSc.Co-guaranteedoc. RNDr. Miroslava Martinková, PhD.Co-guaranteedoc. RNDr. Ján Imrich, CSc. |                                |  |     |