CONTENT

| 1. Certified training course | 3 |
|--|----|
| 2. Citation in Slovak scientific journal | 4 |
| 3. Citation in international scientific journal | 5 |
| 4. Citation in monograph | 6 |
| 5. Co-investigator of international project | 7 |
| 6. Co-investigator of the applied research project | 8 |
| 7. Co-worker of local project | 9 |
| 8. Combinatorial algorithms | |
| 9. Computational complexity and models | 11 |
| 10. Conference organising committee membership | |
| 11. Dissertation examination | 14 |
| 12. Elaboration of reviewer report | 15 |
| 13. English Language for PhD Students 1 | 16 |
| 14. English Language for PhD Students 2 | 18 |
| 15. Enumeration of combinatorial objects | 20 |
| 16. Graph theory | 21 |
| 17. Group theory | 23 |
| 18. Individual study of scientific literature I | 24 |
| 19. Individual study of scientific literature II | 25 |
| 20. International Journal | |
| 21. International Study Stay less than 30 Days | 27 |
| 22. International Study Stay more than 30 Days | 28 |
| 23. International conference abroad. | |
| 24. International peer-reviewed proceedings | 30 |
| 25. Lattice theory | |
| 26. Local Conference | 32 |
| 27. Local conference with international participation | |
| 28. Local journal | 34 |
| 29. Matroid theory | 35 |
| 30. Member of the internal project team | 36 |
| 31. Membership in conference organising committee | |
| 32. Monograph | |
| 33. Monograph in a renowned publishing house | 39 |
| 34. Non-Reviewed International or National Proceedings | 40 |
| 35. Ordered algebraic structures | |
| 36. Patent, invention, software | 43 |
| 37. Pedagogy for University Teachers | 44 |
| 38. PhD thesis defence. | 46 |
| 39. Polyhedral theory | |
| 40. Popularisation of science | 49 |
| 41. Presentation of results in seminar | |
| 42. Principal investigator of an internal grant (VVGS) | |
| 43. Probability method in combinatorics | |
| 44. Psychology for University Lecturers | |
| 45. Q1 journal as co-author | |
| 46. Q1 journal as first or corresponding author | |
| 47. Q2 journal as co-author | |
| 48. Q2 journal as first or corresponding author | 59 |

| 49. | Q3 journal as co-author | .60 |
|-----|---|------|
| | Q3 journal as first or corresponding author | |
| 51. | Q4 journal as co-author | . 62 |
| 52. | Q4 journal as first or corresponding author | . 63 |
| 53. | Reviewer report | 64 |
| 54. | SCI or SCOPUS citation | . 65 |
| 55. | Scientific work after sending to the editorial office | 66 |
| 56. | Selected topics in graph theory I | 67 |
| 57. | Selected topics in graph theory II | . 69 |
| 58. | Spring School for PhD Students | . 71 |
| 59. | Study stay abroad | . 73 |
| 60. | Supervising a bachelor thesis | . 74 |
| 61. | Supervising a student's scientific work | . 75 |
| | Supervision of student scientific work | |
| | Teaching activities 1 h/s | |
| 64. | Teaching activities 2 h/s | . 78 |
| 65. | Teaching activities 3 h/s | . 79 |
| 66. | Teaching activities 4 h/s | . 80 |
| | Theory of planar graphs | |
| 68. | Thesis consultant | 83 |
| 69. | Thesis supervising | 84 |
| 70. | Topological graph theory | .85 |
| 71. | Universal algebra | . 86 |
| | | |

| University: P. J. Šafárik University in KošiceFaculty: Faculty of ScienceCourse ID: ÚMV/ COK/22Course name: Certified training con COK/22Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: presentNumber of ECTS credits: 4 | ourse |
|---|--|
| Course ID: ÚMV/ COK/22Course name: Certified training con COK/22Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present | burse |
| COK/22 Course type, scope and the method: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present | burse |
| Course type: Recommended course-load (hours): Per week: Per study period: Course method: present | |
| Course method: present | |
| Number of ECTS credits: 4 | |
| | |
| Recommended semester/trimester of the course: | |
| Course level: III. | |
| Prerequisities: | |
| Conditions for course completion: Completion of a certified professional/training course. Learning outcomes: | |
| The PhD student acquires up-to-date scientific knowledge work and familiarizes himself with the methodologies of He confronts his own knowledge and skills with other cour peer discussion in the given scientific field. | f making scientific knowledge available. |
| Brief outline of the course: | |
| Recommended literature: | |
| Course language: | |
| Notes: | |
| Course assessment | |
| Total number of assessed students: 0 | |
| Total number of assessed students: 0 abs | n |
| | n 0.0 |
| abs | |
| abs 0.0 | |

| University: P. J. Šafá | rik University in Košice | |
|---|--|--|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dCDC/22 | Course name: Citation | in Slovak scientific journal |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 2 | |
| Recommended seme | ster/trimester of the cou | irse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Citation in a national | 1 | |
| researched field, bas problem in such a wa source demonstrates | ed on the ability to form ay that generates new known the competence to com- tific knowledge, at the high | d very well-founded scientific knowledge in the nulate research questions, to reflect on a scientific owledge. At the same time, a citation in an indexed nunicate new knowledge, which is a significant ghest expert level. |
| Recommended litera | ature: | |
| Course language: | | |
| Notes: | | |
| ~ | · · · · · · · · · · · · · · · · · · · | |
| Course assessment Total number of asse | ssed students: 0 | |
| | ssed students: 0 abs | n |
| | | n 0.0 |
| | abs | |
| Total number of asse | abs 0.0 | |

| | rik University in Košice | |
|---|---|--|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dCZC/22 | Course name: Citation | in international scientific journal |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 4 | |
| Recommended seme | ester/trimester of the cou | ırse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Obtained citation in a | se completion: a foreign scientific journa | ıl. |
| researched field, bas problem in such a w source demonstrates contribution to scient | ed on the ability to form ay that generates new know | d very well-founded scientific knowledge in the nulate research questions, to reflect on a scientific owledge. At the same time, a citation in an indexed nmunicate new knowledge, which is a significant ghest expert level |
| | | |
| Brief outline of the o | | |
| Brief outline of the or Recommended literation | | |
| | | |
| Recommended litera | | |
| Recommended litera Course language: | ature: | |
| Recommended litera Course language: Notes: Course assessment | ature: | n |
| Recommended litera Course language: Notes: Course assessment | ssed students: 0 | n 0.0 |
| Recommended litera Course language: Notes: Course assessment | ature: ssed students: 0 abs | |
| Recommended litera Course language: Notes: Course assessment Total number of asse | ature: ssed students: 0 abs 0.0 | |

| | rik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dCMG/22 | Course name: Citation in | monograph |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 8 | |
| Recommended seme | ester/trimester of the cours | ie: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Obtained citation reg | se completion: sistered in SCI or Scopus. | |
| researched field, bas problem in such a wa source demonstrates | ed on the ability to formul ay that generates new know the competence to comm tific knowledge, at the highe | very well-founded scientific knowledge in the late research questions, to reflect on a scientific reledge. At the same time, a citation in an indexed unicate new knowledge, which is a significant est expert level. |
| Recommended litera | | |
| Recommended intera | iture: | |
| Course languages | | |
| Course language: | | |
| Course language: Notes: Course assessment Total number of asse | ssed students: 0 | |
| Notes: Course assessment | ssed students: 0 abs | n |
| Notes: Course assessment | | n 0.0 |
| Notes: Course assessment | abs | |
| Notes: Course assessment Total number of asse | abs 0.0 | |

| | rik University in Košice | |
|---|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ dSMP/22 | Course name: Co-investig | ator of international project |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 15 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Membership in the re | se completion: esearch team of an internatio | nal project. |
| | by solving a specific task | within a team of international project solvers. |
| task, adhere to the ti experience from the creation of measurab | me schedule and fulfill the implementation of an inter- ile outputs, grant funding of | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the c | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the c Recommended litera | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the c | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the c Recommended litera | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the c Recommended litera Course language: | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: ature: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the of Recommended litera Course language: Notes: Course assessment | me schedule and fulfill the implementation of an inter ile outputs, grant funding of a course: ature: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal mational project, participation in its key stages, |
| task, adhere to the ti experience from the creation of measurab Brief outline of the of Recommended litera Course language: Notes: Course assessment | me schedule and fulfill the implementation of an inter- ile outputs, grant funding of a course: ature: | rk in a team, take responsibility for the assigned project outputs. The PhD student gains personal national project, participation in its key stages, science. |
| task, adhere to the ti experience from the creation of measurab Brief outline of the of Recommended litera Course language: Notes: Course assessment | me schedule and fulfill the implementation of an inter- ile outputs, grant funding of a course: ature: essed students: 2 abs | n |
| task, adhere to the ti experience from the creation of measurab Brief outline of the of Recommended litera Course language: Notes: Course assessment Total number of asse | me schedule and fulfill the implementation of an inter- ile outputs, grant funding of a course: ature: essed students: 2 abs 100.0 | n |

| University: P. J. Šafá | rik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ SPAV/22 | Course name: Co-investig | ator of the applied research project |
| Course type, scope a Course type: Recommended cou Per week: Per stuc Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 5 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Co-investigator of th | se completion: e applied research project | |
| to the solution of the tasks. By solving an objective according to own activities with c | e project objective of applied applied research project, 1 to the established procedure colleagues, to participate in t | cipate in teamwork, to bring his own contribution d research and to take responsibility for assigned he acquires the ability to implement the project , to follow the project schedule, to coordinate his he creation of applied research outputs. The PhD cal course of a grant project with a focus on applied |
| Brief outline of the o | course: | |
| Recommended litera | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 0 | |
| | abs | n |
| | 0.0 | 0.0 |
| | | |
| Provides: | | |
| Provides: Date of last modifica | ation: 08.11.2022 | |

| | árik University in Košio | |
|---|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ SDPR/22 | Course name: Co-we | orker of local project |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | urse-load (hours): dy period: | |
| Number of ECTS ci | redits: 10 | |
| Recommended sem | ester/trimester of the | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Co-investigator of th | - | |
| Learning outcomes: The PhD student der | | participate in teamwork, to bring his own contribution |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co | nonstrates the ability to he project objective a project, he acquires th ocedure, to follow the ipate in the creation of purse of the grant project | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the | nonstrates the ability to he project objective a project, he acquires th ocedure, to follow the ipate in the creation of ourse of the grant project course: | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the Recommended liter | nonstrates the ability to he project objective a project, he acquires th ocedure, to follow the ipate in the creation of ourse of the grant project course: | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the o Recommended liter Course language: | nonstrates the ability to he project objective a project, he acquires th ocedure, to follow the ipate in the creation of ourse of the grant project course: | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the Recommended liter | nonstrates the ability to he project objective a c project, he acquires th ocedure, to follow the ipate in the creation of ourse of the grant project course: ature: | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the of Recommended liter Course language: Notes: Course assessment | nonstrates the ability to he project objective a c project, he acquires th ocedure, to follow the ipate in the creation of ourse of the grant project course: ature: | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the of Recommended liter Course language: Notes: Course assessment | nonstrates the ability to he project objective a c project, he acquires th ocedure, to follow the ipate in the creation or ourse of the grant project course: ature: essed students: 14 | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience et. |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the of Recommended liter Course language: Notes: Course assessment | nonstrates the ability to he project objective a c project, he acquires th ocedure, to follow the ipate in the creation or ourse of the grant project course: ature: essed students: 14 abs | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience et. |
| The PhD student der to the solution of t solving the domestic to the established pr colleagues, to partic from the practical co Brief outline of the o Recommended liter Course language: Notes: Course assessment Total number of asse | nonstrates the ability to he project objective a c project, he acquires the ocedure, to follow the ipate in the creation or ourse of the grant project course: ature: essed students: 14 abs 100.0 | nd to take responsibility for the assigned tasks. By ne ability to implement the project intention according project schedule, to coordinate his own activities with f outputs. The PhD student gains valuable experience et. |

| University: P. J. Šafá | rik University in Košice | |
|---|---|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ dKOA/10 | Course name: Combinato | rial algorithms |
| Course type, scope a Course type: Lectur Recommended cou Per week: 3 Per stu Course method: pro | re rse-load (hours): ıdy period: 42 | |
| Number of ECTS cr | edits: 5 | |
| Recommended seme | ester/trimester of the cours | e: 2., 4. |
| Course level: III. | | |
| Prerequisities: | | |
| | optimal solution, respective | n that returns the optimal solution or a acceptable ly, of a selected graph problem given by a suitable |
| Brief outline of the o | course: | |
| Recommended litera | ature: | |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 2 | |
| | Ν | Р |
| | | |
| | 0.0 | 100.0 |
| Provides: doc. RND | | 100.0 |
| Provides: doc. RNDr Date of last modifica | . Roman Soták, PhD. | 100.0 |

| VYMD/15 Course type, scope an Course type: Lecture Recommended cour Per week: 2 Per stud | Course name: Computational complexity and models ad the method: |
|---|--|
| VYMD/15 Course type, scope ar Course type: Lecture Recommended cour Per week: 2 Per stud | nd the method: |
| Course type: Lecture Recommended cour Per week: 2 Per stud | |
| Course method: pres | ly period: 28 |
| Number of ECTS cre | dits: 9 |
| Recommended semes | ter/trimester of the course: 3. |
| Course level: III. | |
| Prerequisities: | |
| Conditions for course Written test combined | e completion: with an oral examination. |
| of algorithms, fundan about reducibility amo | |
| machines, RAM and H2. Basic complexityEXPSPACE.3. P versus NP, L vers | space complexity, basic computational models: single- and multi-tape Turing ASP models, unit and logarithmic costs. classes: L, NL, P, NP, PSPACE, NPSPACE, EXPTIME, NEXPTIME us NL. Examples of complete problems in these classes. d logarithmic space reducibilities, definition and basic properties of complete |
| 5. NP-completenss of 6. Variants of SAT, pro 7. Other NP-complete salesman problem. 8. Subexponential dete balancing. Restricted | the Boolean formula satisfiability (SAT). oblems related to graph coloring. problems: vertex cover, Hamiltionian paths, subset sum, balancing, traveling erministic solutions for selected NP-complete problems: planar 3-colorability variants with more efficient solutions. lasses: Savitch theorem, inductive counting. |
| 10. Problems complete Boolean formulas (QE | e for NL, P, and PSPACE: graph accessibily (GAP), circuit-value, quantified BF). Islation theorems for time and space. exity classes. exity classes. ierarchy. |

J.E. Hopcroft, R.Motwani, J.D. Ullman: Introduction to automata theory, languages, and computation, Addison-Wesley, 2007.

M. Sipser: Introduction to the Theory of Computation, Thomson, 2nd edition, 2006.

S. Arora, B. Barak: Computational Complexity: A Modern Approach, Cambridge Univ. Pess, 2009.

C. Calude and J. Hromkovič: Complexity: A Language-Theoretic Point of View, in G. Rozenberg and A. Salomaa, Handbook of Formal Languages II, Springer, 1997.

G.Brassard, P.Bradley: Fundamentals of algorithmics, Prentice Hall, 1996.

Ch. H. Papadimitriou: Computational Complexity, Addison-Wesley, 1994.

D.P.Bovet, P.Crescenzi: Introduction to the theory of complexity, Prentice Hall, 1994.

Course language:

Slovak or english

Notes:

Content prerequisity: Basic knowlegde in the area of formal languages, automata theory, and programming.

| programming. | |
|---|-------|
| Course assessment | |
| Total number of assessed students: 30 | |
| Ν | Р |
| 0.0 | 100.0 |
| Provides: prof. RNDr. Viliam Geffert, DrSc. | |
| Date of last modification: 23.11.2021 | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | |

| University: P. J. Šafá | rik University in Košice | | |
|---|--|----|--|
| Faculty: Faculty of Science | | | |
| Course ID: ÚMV/ dPOV/12 | | | |
| Course type, scope a Course type: Recommended cou Per week: Per stuc Course method: pro | rse-load (hours): ly period: esent | | |
| Number of ECTS cr | | | |
| | ster/trimester of the cours | e: | |
| | Course level: III. | | |
| Prerequisities: | Prerequisities: | | |
| Conditions for course completion: | | | |
| Learning outcomes: | | | |
| Brief outline of the o | course: | | |
| Recommended litera | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | ssed students: 5 | | |
| | abs n | | |
| 100.0 0.0 | | | |
| Provides: | | | |
| Date of last modifica | ation: | | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD. | | |

| University: P. J. Šafá | rik University in Koš | sice | |
|--|---|---|--|
| Faculty: Faculty of Science | | | |
| Course ID: ÚMV/ dDZS/14 | V/ Course name: Dissertation examination | | |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours): y period: | | |
| Number of ECTS cr | edits: 20 | | |
| Recommended seme | ster/trimester of the | e course: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cours Acquiring the require | - | in the structure defined by the study plan. | |
| Learning outcomes: Evaluation of student | 's competences with | respect to the profile of the graduate. | |
| • | al exam is organised ident (the course is o | I as a discourse focusing on 3 courses serving as credit chosen by the supervisor of the student after consulting e). | |
| Recommended literature: | | | |
| Course language: slovak | | | |
| Notes: | | | |
| Course assessment Total number of asse | ssed students: 32 | | |
| | N P | | |
| | 0.0 100.0 | | |
| Provides: | | | |
| Date of last modifica | tion: 03.05.2015 | | |
| Annroved prof DNI | Dr. Tomáš Madaras, I | 2hD | |

| Faculty: Faculty of S | | | |
|---|--|---|--|
| | Science | | |
| Course ID: ÚMV/ VPZP/22 | Course name: Elaboration of reviewer report | | |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | | |
| Number of ECTS cr | redits: 3 | | |
| Recommended seme | ester/trimester of the cours | e: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cours Elaboration of review | - | | |
| | | fically based knowledge in the field of study, as lapproaches. Demonstrates the ability to critically | |
| assess a professiona recommend another sciences to his own f | l problem and its proposed solution. He applies know ield. | solution, as well as to evaluate it and possibly redge and skills from the field of pedagogical | |
| assess a professiona recommend another sciences to his own f Brief outline of the c | l problem and its proposed solution. He applies know ield. | solution, as well as to evaluate it and possibly | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended litera | l problem and its proposed solution. He applies know ield. | solution, as well as to evaluate it and possibly | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended litera Course language: | l problem and its proposed solution. He applies know ield. | solution, as well as to evaluate it and possibly | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended litera | l problem and its proposed solution. He applies know ield. course: ature: | solution, as well as to evaluate it and possibly redge and skills from the field of pedagogical | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended liters Course language: Notes: Course assessment | l problem and its proposed solution. He applies know ield. course: ature: essed students: 0 abs | n | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended litera Course language: Notes: Course assessment Total number of asse | l problem and its proposed solution. He applies know ield. course: ature: | solution, as well as to evaluate it and possibly redge and skills from the field of pedagogical | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended liters Course language: Notes: Course assessment | l problem and its proposed solution. He applies know ield. course: ature: essed students: 0 abs | n | |
| assess a professiona recommend another sciences to his own f Brief outline of the o Recommended litera Course language: Notes: Course assessment Total number of asse | l problem and its proposed solution. He applies know ield. course: ature: essed students: 0 abs 0.0 | n | |

| University: P. J. Šafári | k University in Košice | | | | |
|--|---|--|--|--|--|
| Faculty: Faculty of Sc | Faculty: Faculty of Science | | | | |
| Course ID: CJP/ Course name: English Language for PhD Students 1 AJD1/07 | | | | | |
| Course type, scope an Course type: Practice Recommended course Per week: 2 Per stud Course method: dista | e se-load (hours): ly period: 28 | | | | |
| Number of ECTS cree | dits: 2 | | | | |
| Recommended semes | ter/trimester of the course: 1. | | | | |
| Course level: III. | | | | | |
| Prerequisities: | | | | | |
| 1 | completion: e English for PhD Students (lms.upjs.sk), consultations (1-3). Professional/Academic CV, Short Academic Biography. | | | | |
| of their linguistic com syntactic aspects; deve | udents' language skills - reading, writing, listening, speaking; improvement petence - students acquire knowledge of selected phonological, lexical and elopment of pragmatic competence - students acquire skills for effective and ation, with focus on Academic English and English for specific/professional | | | | |
| vocabulary developme formation, formal/info | urse: cademic and professional English with focus on correct pronunciation, ent (noun and verb collocations, phrasal verbs, prepositional phrases, word- ormal language, etc.), selected aspects of English grammar (prepositions, ve voice, etc.), academic writing (professional/academic CV, Short Academic | | | | |
| Kolaříková, Z., Petruň Košice, Vydavateľstvo Tomaščíková, S., Roze Vydavateľstvo Šafárik McCarthy, M., O'Dell Štepánek, L., J. De Ha 2011. | demic Vocabulary Practice. OUP, 2017. ová, H., Timková, R.: Angličtina v akademickom prostredí – cvičebnica. ŠafárikPress, 2021. enfeld, J. Developing Academic English in Speaking and Writing. | | | | |
| Course language: English, level B2 acco | rding to CEFR | | | | |
| | | | | | |

| Course assessment Total number of assessed students: 780 | | | | | |
|---|--|--|--|--|------|
| N Ne P Pr abs neabs | | | | | |
| 0.0 0.0 45.64 0.0 54.23 0.13 | | | | | 0.13 |
| Provides: Mgr. Zuzana Kolaříková, PhD. | | | | | |
| Date of last modification: 06.09.2024 | | | | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | | | | |

| LD2/07 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Number of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Learning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list). English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafi | | COURSE INFORMATION LETTER | | | | |
|--|---|--|--|--|--|--|
| Course ID: CJP/ (JD2/07 Course name: English Language for PhD Students 2 Course type, scope and the method: Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Yumber of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Test, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Acarning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional surposes, level B2. Strief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafiková, Z., Pe | University: P. J. Šafá | rik University in Košice | | | | |
| LD2/07 Course type, scope and the method: Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Number of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Learning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list). English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafi | Faculty: Faculty of S | cience | | | | |
| Course type: Practice Recommended course-load (hours): Per week: 2 Per study period: 28 Course method: distance, present Wumber of ECTS credits: 3 Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) | Course ID: CJP/ AJD2/07 | | | | | |
| Recommended semester/trimester of the course: 2. Course level: III. Prerequisities: Conditions for course completion: Test, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) cearning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolafiková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. UpJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafařikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, | Course type: Practic Recommended cour Per week: 2 Per stu | ce rse-load (hours): idy period: 28 | | | | |
| Course level: III. Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Learning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠaťaříkPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | Number of ECTS cr | redits: 3 | | | | |
| Prerequisities: Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Learning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional burposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | Recommended seme | ester/trimester of the course: 2. | | | | |
| Conditions for course completion: Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) .carning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | Course level: III. | | | | | |
| Fest, oral exam in accordance with the exam requirements (available at the web-site of the LTC and in MS TEAMS) Fearning outcomes: The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional burposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | Prerequisities: | | | | | |
| The development of students' language skills - reading, writing, listening, speaking, improvement of their linguistic competence - students acquire knowledge of selected phonological, lexical and syntactic aspects, development of pragmatic competence - students can efectively use the anguage for a given purpose, with focus on Academic English and English for specific/professional purposes, level B2. Brief outline of the course: Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development (formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafařikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | | - | | | | |
| Academic communication (self-presentation, presenting at scientific meetings and conferences). Specific aspects of academic and professional English with focus on vocabulary development formality, academic word-list), English grammar (passive voice, nominalisatio), language functions (expressing opinion, cause/effect, presenting arguments, giving examples, describing graphs/charts/schemes, etc.). Cross-language interference. Recommended literature: Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. | The development of a of their linguistic co and syntactic aspects | students' language skills - reading, writing, listening, speaking, improvement ompetence - students acquire knowledge of selected phonological, lexical s, development of pragmatic competence - students can efectively use the | | | | |
| Moore, J.: Oxford Academic Vocabulary Practice. OUP, 2017. Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Fomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. | Academic communic Specific aspects of a (formality, academic functions (expressing | cation (self-presentation, presenting at scientific meetings and conferences). academic and professional English with focus on vocabulary development c word-list), English grammar (passive voice, nominalisatio), language g opinion, cause/effect, presenting arguments, giving examples, describing | | | | |
| Kolaříková, Z., Petruňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). UPJŠ Košice, 2021. Tomaščíková, S., Rozenfeld, J. Developing Academic English in Speaking and Writing. Vydavateľstvo ŠafárikPress, 2021. McCarthy, M., O'Dell, F.: Academic Vocabulary in Use. CUP, 2008. | Recommended litera | ature: | | | | |
| | Kolaříková, Z., Petru UPJŠ Košice, 2021. Tomaščíková, S., Roz Vydavateľstvo Šafári McCarthy, M., O'De Štepánek, L., J. De H 2011. | nňová, H., Timková, R.: Angličtina v akademickom prostredí (cvičebnica). zenfeld, J. Developing Academic English in Speaking and Writing. ikPress, 2021. II, F.: Academic Vocabulary in Use. CUP, 2008. Iaff a kol.: Academic English-Akademická angličtina. Grada Publishing, a.s., | | | | |
| Course language: B2 level according to CEFR | Course language: B2 level according to | o CEFR | | | | |
| | Notes: | | | | | |

| Course assessment Total number of assessed students: 774 | | | | | |
|---|--|--|--|--|--|
| N Ne P Pr abs neabs | | | | | |
| 0.26 0.0 94.06 1.03 4.52 0.13 | | | | | |
| Provides: Mgr. Zuzana Kolaříková, PhD. | | | | | |
| Date of last modification: 05.02.2024 | | | | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | | | | |

| University: P. J. Šafá | rik University in Košice | | | |
|--|---|--|--|--|
| Faculty: Faculty of Science | | | | |
| Course ID: ÚMV/ dEKO/10 | · · · · · · · · · · · · · · · · · · · | | | |
| Course type, scope a Course type: Lectu Recommended cou Per week: 4 Per stu Course method: pro | re rse-load (hours): Idy period: 56 | | | |
| Number of ECTS cr | edits: 7 | | | |
| Recommended seme | ester/trimester of the cour | se: 2., 4. | | |
| Course level: III. | | | | |
| Prerequisities: | | | | |
| Conditions for cours A student is evaluate | se completion: d according to an oral exan | nination. | | |
| | | on theory and on special examples sees how to use matical objects. | | |
| Enumeration of inject | permutation group. Burn ctive functions. Enumeration | side's Lemma. Pólya's Enumeration Theorem. on of trees. Enumeration of graphs of given order ralisations of Pólya's Enumeration Theorem. | | |
| Recommended liter F. Harary, E. M. Palr | ature: ner: Graphical Enumeration | n, Academic Press, 1973 | | |
| Course language: Slovak and English | | | | |
| Notes: | | | | |
| Course assessment Total number of assessed students: 1 | | | | |
| | N P | | | |
| | 0.0 100.0 | | | |
| Provides: RNDr. Igo | r Fabrici, Dr. rer. nat. | | | |
| Date of last modifica | ation: 17.03.2022 | | | |
| Annroved: prof RN | Dr. Tomáš Madaras, PhD. | | | |

| University: P. J. Šafá | rik University in Košice |
|--|--|
| Faculty: Faculty of S | cience |
| Course ID: ÚMV/ dTGF/10 | Course name: Graph theory |
| Course type, scope a Course type: Lectur Recommended cour Per week: 3 Per stu Course method: pre | e rse-load (hours): dy period: 42 |
| Number of ECTS cr | edits: 5 |
| Recommended seme | ster/trimester of the course: 1. |
| Course level: III. | |
| Prerequisities: | |
| theorems from the lead the connections betwe | e completion: rse, it is necessary to demonstrate the ability to formulate definitions and ctured material together with their proofs, and to present an understanding of een particular concepts and results. subject is based on the results of an oral exam (consisting of two theoretical |
| | course, the student is acquainted with other advanced topics of graph theory, by basic courses in discrete mathematics during the bachelor or master degree |
| Automorphism group | s (2 weeks) n subgraphs (2 weeks) os of graphs (2 weeks) nry properties (3 weeks) ns (2 weeks) |
| J.Bang-Jensen and G. London, 2001 | R. Murty, Graph Theory, Springer-Verlag, 2008 . Gutin: Digraphs: Theory, Algorithms and Applications, Springer-Verlag eory, Springer-Verlag, New York, 1997 |
| Course language: Slovak and English | |
| Notes: | |
| | |

| Course assessment Total number of assessed students: 23 | | | |
|---|---|--|--|
| Ν | Р | | |
| 0.0 100.0 | | | |
| Provides: doc. RNDr. Roman Soták, PhD., prof. RNDr. Tomáš Madaras, PhD., RNDr. Igor Fabrici, Dr. rer. nat. | | | |
| Date of last modification: 20.09.2021 | | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | | |

| | ik University in Košice | | |
|--|---|--|--|
| Faculty: Faculty of Science | | | |
| Course ID: ÚMV/ dTGR/10 | 1 5 | | |
| Course type, scope ar Course type: Lecture Recommended cour Per week: 4 Per stuc Course method: pres | e se-load (hours): ly period: 56 | | |
| Number of ECTS cre | dits: 7 | | |
| Recommended semes | ter/trimester of the cou | rse: 4. | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for course written and oral exam | L | | |
| Learning outcomes: The students learn basic concepts and methods of group theory and their applications in various parts of mathematics. | | | |
| subgroups, factorizat | s, abstract groups. Subg tion. Classification of index, Burnside's lemma | roups, orders of elements, cyclic groups. Normal finitely generated Abelian groups. Groups of a, Pólya's theorem. Sylow's subgroups, p-groups. | |
| L. Beran: Grupy a sva D.A.R. Wallace: Grou | off: Algebra, Alfa Bratish zy, SNTL Praha, 1974 aps,rings and fields, Sprin | | |
| Course language: Slovak or English | | | |
| Notes: | | | |
| Course assessment Total number of assessed students: 21 | | | |
| | N P | | |
| | 0.0 100.0 | | |
| Provides: doc. RNDr. | Miroslav Ploščica, CSc. | | |
| Date of last modification: 08.02.2022 | | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | | |

| University: P. J. Šafá | University: P. J. Šafárik University in Košice | | |
|--|--|----------|--|
| Faculty: Faculty of S | cience | | |
| Course ID: ÚMV/ dISLa/14 | Course name: Individual study of scientific literature I | | |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours): ly period: | | |
| Number of ECTS cr | edits: 12 | | |
| Recommended seme | ster/trimester of the cours | e: 1., 2 | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for course completion: | | | |
| Learning outcomes: | | | |
| Brief outline of the course: | | | |
| Recommended litera | iture: | | |
| Course language: Slovak and English | | | |
| Notes: | | | |
| Course assessment Total number of assessed students: 41 | | | |
| abs n | | | |
| 100.0 0.0 | | | |
| Provides: | Provides: | | |
| Date of last modification: 03.05.2015 | | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | | |

| University: P. J. Šafá | rik University in Košice | |
|--|---------------------------------|----------------------------------|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dISLb/14 | Course name: Individual s | tudy of scientific literature II |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 12 | |
| Recommended seme | ster/trimester of the cours | e: 3., 4 |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours | e completion: | |
| Learning outcomes: | | |
| Brief outline of the c | ourse: | |
| Recommended litera | iture: | |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 40 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| Date of last modifica | ition: 03.05.2015 | |
| Approved: prof. RNI | Dr. Tomáš Madaras, PhD. | |

| University: P. J. Šafa | árik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ ZC/22 | Course name: Internation | al Journal |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 8 | |
| Recommended sem | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | se completion: l in a foreign journal as an at | uthor/co-author. |
| level of ability to ide He demonstrates the applying them critic an innovative way, a according to the high | entify, evaluate, and apply co e ability to reflect on a scier ally. He demonstrates the co is well as to generate new or nest qualitative and ethical sta | /co-author, the PhD student demonstrates a high rrect scientific methods or research methodology. tific problem by using the latest approaches and mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |
| Brief outline of the | course: | |
| Recommended liter | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 1 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| 110114051 | | |
| Date of last modific | ation: 08.11.2022 | |

| | rik University in Košic | |
|--|--|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ ZSP1/22 | Course name: Intern | ational Study Stay less than 30 Days |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 5 | |
| Recommended seme | ster/trimester of the o | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Completion of a fore | se completion: ign study stay lasting l | ess than 30 days. |
| Learning outcomes: By completing a shore | rter study stay. the PhD | student demonstrates the ability to reflect on research |
| By completing a short problems and work of while being able to go in more than one lang in a group with the air of research, to practio | critically with sources enerate new knowledge guage. He acts as a resp m of pushing the bound ce and to the wider pub | e student demonstrates the ability to reflect on research at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas olic. He can competently argue and explain his ideas. |
| By completing a shor problems and work of while being able to go in more than one lang in a group with the air of research, to practic Brief outline of the c | critically with sources enerate new knowledge guage. He acts as a resp m of pushing the bound ce and to the wider pub | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas |
| By completing a shor problems and work of while being able to go in more than one lang in a group with the air of research, to practice Brief outline of the c Recommended litera | critically with sources enerate new knowledge guage. He acts as a resp m of pushing the bound ce and to the wider pub | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas |
| By completing a shorp problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: | critically with sources enerate new knowledge guage. He acts as a resp m of pushing the bound ce and to the wider pub | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to praction Brief outline of the c Recommended litera Course language: Notes: | critically with sources enerate new knowledge guage. He acts as a resp m of pushing the bound ce and to the wider pub | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: | critically with sources enerate new knowledge guage. He acts as a response of pushing the bound ce and to the wider pub course: nture: | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse | eritically with sources enerate new knowledge guage. He acts as a response of pushing the bound ce and to the wider pub course: nture: ssed students: 8 abs | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas olic. He can competently argue and explain his ideas. |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse | critically with sources enerate new knowledge guage. He acts as a response of pushing the bound ce and to the wider pub course: nture: | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas olic. He can competently argue and explain his ideas. |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse | eritically with sources enerate new knowledge guage. He acts as a response of pushing the bound ce and to the wider pub course: nture: ssed students: 8 abs | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas olic. He can competently argue and explain his ideas. |
| By completing a shor problems and work of while being able to g in more than one lang in a group with the air of research, to practic Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse | critically with sources enerate new knowledge guage. He acts as a response of pushing the bound ce and to the wider pub course: nture: ssed students: 8 abs 100.0 | at an expert level and in an interdisciplinary context, e. He is able to actively communicate at an expert level onsible independent scientist, works independently and laries of knowledge and transferring them to other areas olic. He can competently argue and explain his ideas. |

| Faculty: Faculty of S | árik University in Ko | sice |
|--|---|--|
| racuity. Faculty of S | Science | |
| Course ID: ÚMV/ ZSP2/22 | Course name: Inte | ernational Study Stay more than 30 Days |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS ci | redits: 10 | |
| Recommended seme | ester/trimester of th | e course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Completion of a fore | se completion: eign study stay lasting | g more than 30 days. |
| by completing the | stary stary, the the | student demonstrates the ability to reflect on research |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas public. He can competently argue and explain his ideas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the Recommended liter | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the Recommended liter Course language: | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the Recommended liter | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: ature: | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the of Recommended liter Course language: Notes: Course assessment | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: ature: | es at an expert level and in an interdisciplinary context dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the of Recommended liter Course language: Notes: Course assessment | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: ature: essed students: 0 | es at an expert level and in an interdisciplinary context dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas public. He can competently argue and explain his ideas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the of Recommended liter Course language: Notes: Course assessment Total number of asse | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: ature: essed students: 0 abs | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas public. He can competently argue and explain his ideas |
| problems and work while being able to g in more than one lang in a group with the ai of research, to practi Brief outline of the of Recommended liter Course language: Notes: Course assessment | critically with source generate new knowled guage. He acts as a re- im of pushing the bou ce and to the wider p course: ature: essed students: 0 abs 0.0 | es at an expert level and in an interdisciplinary context, dge. He is able to actively communicate at an expert level sponsible independent scientist, works independently and indaries of knowledge and transferring them to other areas public. He can competently argue and explain his ideas |

| University: P. J. Šafá | rik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ MKZ/22 | Course name: Internationa | al conference abroad |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 10 | |
| Recommended seme | ster/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Active participation | se completion: in an international conference | e abroad. |
| demonstrates a high research methodolog scientific problem b competence to use e | level of ability to identify, by in his scientific field. He by using the latest approach xisting theories and concept owledge and communicate | scientific conference abroad, the phD student evaluate, and apply correct scientific methods or demonstrates the ability to reflect on a specific hes and applying them critically. Demonstrates ts in an innovative way, as well as generate new research results to a wider audience by adequate |
| Brief outline of the o | course: | |
| Recommended litera | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | and students, 24 | |
| | ssed students: 34 | |
| | abs | n |
| | | n 0.0 |
| Provides: | abs | |
| | abs 100.0 | |

| • | árik University in Košice | |
|--|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ RZ/22 | Course name: Internationa | al peer-reviewed proceedings |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS cr | redits: 5 | |
| Recommended sem | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour A publication publis | - | gn or national proceedings as an author/co-author. |
| by publishing in a pe | er-reviewed foreign or nation | nal journal as an author/co-author, the PhD student |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically | hal journal as an author/co-author, the PhD student y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own io | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the Recommended liter | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the Recommended liter Course language: | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. course: ature: | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own io Brief outline of the of Recommended liter Course language: Notes: Course assessment | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. course: ature: | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own io Brief outline of the of Recommended liter Course language: Notes: Course assessment | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. course: ature: essed students: 20 | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own io Brief outline of the of Recommended liter Course language: Notes: Course assessment | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically deas. course: ature: essed students: 20 abs | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using by the demonstrates the competence to use existing that the demonstrates the demonstrates the competence to use existing that the demonstrates the competence to use existing the demonstrates the competence to use existing the demonstrates the demonstrates the demonstrates the demonstrates the demonst |
| demonstrates a high or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own io Brief outline of the o Recommended liter Course language: Notes: Course assessment Total number of asse | degree of ability to identify ology. He demonstrates the a s and applying them critically s in an innovative way, as well h according to the highest q strates the ability to critically deas. course: ature: essed students: 20 abs 100.0 | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using by the demonstrates the competence to use existing that the demonstrates the demonstrates the competence to use existing that the demonstrates the competence to use existing the demonstrates the competence to use existing the demonstrates the demonstrates the demonstrates the demonstrates the demonst |

| University: P. J. Šafá | rik University in Košice | |
|--|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ dTZV/10 | Course name: Lattice theo | ry |
| Course type, scope a Course type: Lectu Recommended cou Per week: 2 Per stu Course method: pro | re rse-load (hours): ıdy period: 28 | |
| Number of ECTS cr | redits: 5 | |
| Recommended seme | ester/trimester of the cours | e: 2., 4. |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for course Awarded according t | se completion: o written and oral exam. | |
| Learning outcomes: The students learn ba in various parts of m | asic concepts and methods of | Lattice theory and gain the ability to apply them |
| | dular lattices, Boolean algeb s. Completeness and complet | oras. Ideals, reprezentation of distibutive lattices ions. Algebraic properties of lattices, congruence |
| B. A. Davey, H. A. F | Lattice Theory (2nd edition), | ces and order, Cambridge University Press 1990 |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 6 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| | 0.0 | |
| Provides: doc. RND | . Miroslav Ploščica, CSc. | |
| Provides: doc. RND Date of last modifica | . Miroslav Ploščica, CSc. | |

| University: P. J. Šafá | rik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | science | |
| Course ID: ÚMV/ DK/22 | Course name: Local Confe | erence |
| Course type, scope a Course type: Recommended cou Per week: Per stuc Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 2 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Active participation | se completion: in the home conference. | |
| degree of ability to id in his scientific field using the latest appro theories and concepts | lentify, evaluate, and apply co l. He demonstrates the abili aches and applying them crit s in an innovative way, as we | conference, the PhD student demonstrates a high prrect scientific methods or research methodology ty to reflect on a specific scientific problem by ically. Demonstrates competence in using existing Il as generating new original scientific knowledge audience using adequate means and through the |
| Brief outline of the o | course: | |
| Recommended litera | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 10 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| | | |
| Date of last modifica | ation: 05.03.2024 | |

| DKZU/22 Image: Course type, scope and the method: Course type, scope and the method: Course type; Recommended course-load (hours): Per week: Per study period: Course method: present Image: Course method: Number of ECTS credits: 5 Image: Course method: Recommended semester/trimester of the course: Image: Course level: Course level: III. Image: Conditions for course completion: Active participation in a national conference with foreign participation. Image: Conditions for course completion: Active participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates completence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Image: Course language: Recommended literature: Image: Course language: Notes: Image: Course language: 100.0 0.0 Provides: Image: Course language: Date of last modification: 08.11.2022 Image: Course language:< | University P I Šafá | rik University in Košice | |
|---|--|---|---|
| Course ID: ÚMV/ DKZU/22 Course name: Local conference with international participation Course type, scope and the method: Course type: Course type: Recommended course-load (hours): Per week: Per study period: Course method: present Course method: present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Notes: n 100.0 0.0 Provides: D Date of last modification: 08.11.2022 D | - | | |
| Course type: Recommended course-load (hours): Per week: Per study period: Course method: present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conticions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment 100.0 0.0 100.0 0.0 0.0 Provides: Date of last modification: 08.11.2022 0.0 | Course ID: ÚMV/ DKZU/22 | | erence with international participation |
| Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment 100.0 0.0 Provides: Data of last modification: 08.11.2022 | Course type: Recommended cour Per week: Per stud | rse-load (hours): y period: | |
| Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 17 abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | 1 | | |
| Course level: III. Prerequisities: Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific mobel by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 17 abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | | | |
| Prerequisities: Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: 100.0 0.0 Provides: Date of last modification: 08.11.2022 | | ster/trimester of the cours | Se: |
| Conditions for course completion: Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment 100.0 0.0 Provides: Date of last modification: 08.11.2022 | | | |
| Active participation in a national conference with foreign participation. Learning outcomes: By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 17 abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | | | |
| By actively participating in a scientific conference, the PhD student demonstrates a high degree of ability to identify, evaluate, and apply correct scientific methods or research methodology in his scientific field. He demonstrates the ability to reflect on a specific scientific problem by using the latest approaches and applying them critically. Demonstrates competence to use existing theories and concepts in an innovative way, as well as generate new original scientific knowledge and communicate research results to a wider audience by adequate means and through Slovak or a foreign language. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 17 | | | h foreign participation. |
| Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 17 abs 100.0 0.0 Provides: Date of last modification: 08.11.2022 | ability to identify, ev scientific field. He de latest approaches and and concepts in an i communicate researc | aluate, and apply correct s monstrates the ability to re applying them critically. I nnovative way, as well as | cientific methods or research methodology in his flect on a specific scientific problem by using the Demonstrates competence to use existing theories generate new original scientific knowledge and |
| Course language: Notes: Course assessment Total number of assessed students: 17 abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | Brief outline of the c | ourse: | |
| Notes: | Recommended litera | ture: | |
| Course assessment Total number of assessed students: 17 abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | Course language: | | |
| Total number of assessed students: 17 abs n 100.0 0.0 Provides: | Notes: | | |
| 100.0 0.0 Provides: | Course assessment Total number of asses | ssed students: 17 | |
| Provides: Date of last modification: 08.11.2022 | | abs | n |
| Date of last modification: 08.11.2022 | | 100.0 | 0.0 |
| | Provides: | | • |
| America de america DND a Transfé Marter DI D | Date of last modifica | tion: 08.11.2022 | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | Approved: prof. RNI | Dr. Tomáš Madaras, PhD. | |

| University: P. J. Safa | árik University in Košice | |
|---|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ DC/22 | Course name: Local journ | al |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 6 | |
| Recommended sem | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | se completion: l in a national journal as auth | or/co-author. |
| level of ability to ide He demonstrates the applying them critic an innovative way, a according to the high | entify, evaluate, and apply co e ability to reflect on a scient ally. He demonstrates the co is well as to generate new or nest qualitative and ethical sta | /co-author, the PhD student demonstrates a high rrect scientific methods or research methodology. tific problem by using the latest approaches and mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |
| Brief outline of the | course: | |
| Recommended liter | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 2 | |
| | abs | n |
| | 100.0 | 0.0 |
| | 100.0 | |
| Provides: | 100.0 | <u> </u> |
| Provides: Date of last modific | | |

| University: P. J. Šafá | rik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dTMT/10 | Course name: Matroid the | ory |
| Course type, scope a Course type: Lectur Recommended cou Per week: 4 Per stu Course method: pre | re rse-load (hours): dy period: 56 | |
| Number of ECTS cr | edits: 7 | |
| Recommended seme | ster/trimester of the cours | e: 1., 3. |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours A student is evaluate | e completion: d according to an oral exami | nation. |
| | inted with special parts of 1 plines of discrete mathemati | matroid theory and with possibilities how to use cs. |
| homeomorphisms ve | ion, minor of a matroid. C rsus matroid minors. Planar g ary matroids. Block designs | onnected matroids. Whitney's Theorem. Graph graphs and their duals. Representation of a matroid versus matroids. Extremal problems in matroids. |
| | nture: Did Theory, Academic Press Theory, Oxford University I | |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 1 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| Provides: doc. RNDr | . Roman Soták, PhD. | |
| Date of last modifica | tion: 17.03.2022 | |
| | Dr. Tomáš Madaras, PhD. | |

| | árik University in Košice | |
|--|---|--|
| Faculty: Faculty of | Science | |
| Course ID: ÚMV/ SIG/22 | Course name: Member | of the internal project team |
| Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 3 | |
| Recommended sem | ester/trimester of the cou | irse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Co-worker of projec | rse completion: et supported by internal gra | ant schemes (VVGS) |
| | monstrates the ability to pa | rticipate in teamwork, to bring his own contribution |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. | |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th Brief outline of the | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: | rticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the redule, coordinate his own activities with colleagues, |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th Brief outline of the Recommended liter | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: | rticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the redule, coordinate his own activities with colleagues, |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th Brief outline of the Recommended liter Course language: | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: | rticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the redule, coordinate his own activities with colleagues, |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th Brief outline of the Recommended liter | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: rature: | rticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the redule, coordinate his own activities with colleagues, |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of the Brief outline of the Recommended liter Course language: Notes: Course assessment | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: rature: | rticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the redule, coordinate his own activities with colleagues, |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of the Brief outline of the Recommended liter Course language: Notes: Course assessment | monstrates the ability to pa he project objective with grant, he acquires the abil re, adhere to the project sch he creation of outputs. Th he grant project. course: rature: essed students: 4 | articipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the nedule, coordinate his own activities with colleagues, e PhD student gains valuable experience from the |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of the Brief outline of the Recommended liter Course language: Notes: Course assessment | monstrates the ability to pa he project objective with grant, he acquires the abili- re, adhere to the project sch he creation of outputs. Th he grant project. course: rature: essed students: 4 abs | nticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the nedule, coordinate his own activities with colleagues, e PhD student gains valuable experience from the n |
| The PhD student der to the solution of t the internal VVGS established procedur and participate in th practical course of th Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asse | monstrates the ability to pa he project objective with grant, he acquires the abili- re, adhere to the project sch he creation of outputs. Th he grant project. course: rature: essed students: 4 abs 100.0 | nticipate in teamwork, to bring his own contribution in the internal grant system at UPJŠ. By solving lity to implement the project plan according to the nedule, coordinate his own activities with colleagues, e PhD student gains valuable experience from the n |

| Eagulture Eagulture - f C | árik University in Koši | ce |
|--|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ POVK/22 | Course name: Mem | bership in conference organising committee |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pr | irse-load (hours): dy period: | |
| Number of ECTS cr | redits: 3 | |
| Recommended seme | ester/trimester of the | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Work in the organizi | se completion: ng committee of the co | onference |
| | | of the conference, the PhD student demonstrates the |
| abilities and compete to manage the impler in writing using vario | ences to organize a scie nentation in terms of the ous technical means as | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional ary, correctly recommend solutions or make independent |
| abilities and compete to manage the impler in writing using varie level with various typ | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using vario level with various typ decisions. | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using vario level with various typ decisions. Brief outline of the o | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using vario level with various typ decisions. Brief outline of the Recommended liter | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using vario level with various typ decisions. Brief outline of the o Recommended liters Course language: | ences to organize a scie nentation in terms of the ous technical means as pes of people, if necessa course: ature: | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using varie level with various typ decisions. Brief outline of the of Recommended liters Course language: Notes: Course assessment | ences to organize a scie nentation in terms of the ous technical means as pes of people, if necessa course: ature: | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional |
| abilities and compete to manage the impler in writing using varie level with various typ decisions. Brief outline of the of Recommended liters Course language: Notes: Course assessment | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa course: ature: | entific or professional event independently or in a team, me and content, to communicate effectively verbally and needed, including in a foreign language at a professional ary, correctly recommend solutions or make independent |
| abilities and compete to manage the impler in writing using varie level with various typ decisions. Brief outline of the of Recommended liters Course language: Notes: Course assessment | ences to organize a scie nentation in terms of the ous technical means as bes of people, if necessa course: ature: essed students: 4 abs | n |
| abilities and compete to manage the impler in writing using vario level with various typ decisions. Brief outline of the o Recommended liters Course language: Notes: Course assessment Total number of asse | ences to organize a scie nentation in terms of the ous technical means as pes of people, if necessa course: ature: essed students: 4 abs 100.0 | n |

| | arik University in Košice | |
|--|---|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ MONB/22 | Course name: Monogr | aph |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): dy period: | |
| Number of ECTS cr | edits: 20 | |
| Recommended seme | ester/trimester of the co | urse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Co-author of the more | - | |
| evaluate, and apply of to reflect on a scient demonstrates the con as to generate new of qualitative and ethic | correct scientific methods tific problem by using the mpetence to use existing original scientific knowled cal standards of the field | ent demonstrates a high level of ability to identify, s or research methodology. It demonstrates the ability he latest approaches and applying them critically. He theories and concepts in an innovative way, as well edge, which he can publish according to the highest d. The doctoral student demonstrates the ability to suggestions, to finalize his own ideas. |
| Brief outline of the o | course: | |
| | atura. | |
| Recommended liter | | |
| Recommended litera Course language: | | |
| | | |
| Course language: | | |
| Course language: Notes: Course assessment | | n |
| Course language: Notes: Course assessment | essed students: 0 | n 0.0 |
| Course language: Notes: Course assessment | essed students: 0 abs | |
| Course language: Notes: Course assessment Total number of asse | essed students: 0 abs 0.0 | |

| | árik University in Košice | |
|--|---|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ MONA/22 | Course name: Monograph | in a renowned publishing house |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pr | rse-load (hours): dy period: | |
| Number of ECTS cr | redits: 40 | |
| Recommended sem | ester/trimester of the course | 2: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Co-author of a mono | se completion: ograph in a renowned publish | ing house. |
| He demonstrates the applying them critic in an innovative wa publish according to | e ability to reflect on a scient ally. He demonstrates the co by, as well as to generate ne the highest qualitative and et | rect scientific methods or research methodology. ific problem by using the latest approaches and ompetence to use existing theories and concepts w original scientific knowledge, which he can chical standards of the field. The doctoral student respond to reviewers' suggestions, to finalize his |
| Brief outline of the | course: | |
| Recommended liter | ature: | |
| | | |
| Course language: | | |
| | | |
| Course language: | | |
| Course language: Notes: Course assessment | | n |
| Course language: Notes: Course assessment | essed students: 0 | n 0.0 |
| Course language: Notes: Course assessment | essed students: 0 abs | |
| Course language: Notes: Course assessment Total number of asse | essed students: 0 abs 0.0 | |

| University: P. J. Šafá | rik University in Košice | |
|---|---|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ NRZ/22 | Course name: Non-Review | wed International or National Proceedings |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours): y period: | |
| Number of ECTS cr | edits: 2 | |
| Recommended seme | ster/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours A publication publish | - | n or national journal as an author/co-author. |
| demonstrates the abi methodology. He den approaches and apply and concepts in an inn he can publish accor | lity to identify, evaluate, a monstrates the ability to re- ring them critically. He dem novative way, as well as to g ding to the highest qualitat | al journal as an author/co-author, the PhD student nd apply correct scientific methods or research flect on a scientific problem by using the latest onstrates the competence to use existing theories enerate new original scientific knowledge, which tive and ethical standards of the field. The phD on thoughts in a written speech. |
| Brief outline of the c | ourse: | |
| Recommended litera | ture: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asses | ssed students: 4 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| Date of last modifica | tion: 08.11.2022 | |
| Approved: prof. RNI | Dr. Tomáš Madaras, PhD. | |
| | | |

| University: P. J. Šafán | rik University in Košice | |
|--|--|---|
| Faculty: Faculty of So | cience | |
| Course ID: ÚMV/ dUAS/10 | Course name: Ordered alg | ebraic structures |
| Course type, scope an Course type: Lectur Recommended cour Per week: 3 Per stue Course method: pre | e ·se-load (hours): dy period: 42 | |
| Number of ECTS cro | edits: 5 | |
| Recommended seme | ster/trimester of the course | e: 2., 4. |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours examination | e completion: | |
| ordered algebraic stru them and generalize; I is to have sufficient n | actures, which to combine knowledge to apply to specifinathematical knowledge and | dern algebra. Acquire the basics of the theory of with the acquired knowledge of algebra, extend ic problems and mathematical problems. The aim d apparatus to enable the independent solution of d the publication of these results. |
| and orthogonality, or | early ordered, lattice order | red groups. Convex subgroups, absolute value nedean ordered structures. Partially ordered and s. |
| T.S.Blyth: Lattices an E.Harsheim: Ordered | lered algebraic systems, Per | ures, Springer Verlag, London, 2005. |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asses | ssed students: 4 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| Provides: prof. RNDr | . Danica Studenovská, CSc. | |
| Date of last modifica | tion: 24.11.2021 | |

Approved: prof. RNDr. Tomáš Madaras, PhD.

| University: P. J. Šafá | rik University in Košice | |
|---|---|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ PVS/04 | Course name: Patent, inve | ntion, software |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pre | rse-load (hours): y period: | |
| Number of ECTS cr | edits: 2 | |
| Recommended seme | ster/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Patent filed, inventio | e completion: n, software product created. | |
| | nonstrates the ability to creat interdisciplinary scale or in | e an innovative product in a given scientific field, technical practice |
| Brief outline of the c | ourse: | |
| Recommended litera | iture: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | ssed students: 2 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| Date of last modifica | tion: 08.11.2022 | |
| Approved: prof. RNI | Dr. Tomáš Madaras, PhD. | |

| University: P. J. Šafărik University in Košice Faculty: Faculty of Science Course ID: KPE/ PgVU/17 Course name: Pedagogy for University Teachers Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessm | |
|---|--|
| Course ID: KPE/ PgVU/17 Course name: Pedagogy for University Teachers Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro university-level professional subjects. Identify and specify educational procedures of a uni teacher aimed at effective teaching management, pedagogical diagnostics, and assessm | |
| PgVU/17 Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessm | |
| Course type: Lecture Recommended course-load (hours): Per week: Per study period: 28s Course method: distance, present Number of ECTS credits: 5 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro- university-level professional subjects. Identify and specify educational procedures of a uni teacher aimed at effective teaching management, pedagogical diagnostics, and assessm | |
| Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro-university-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessment | |
| Course level: III. Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessmination | |
| Prerequisities: Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching prouniversity-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessmed to a sessement. | |
| Conditions for course completion: 1. Development of a teaching diary—100% 2. Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro- university-level professional subjects. Identify and specify educational procedures of a uni- teacher aimed at effective teaching management, pedagogical diagnostics, and assessm | |
| Development of a teaching diary—100% Compulsory active participation and attendance in accordance with the Study Regulation Learning outcomes: After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro-university-level professional subjects. Identify and specify educational procedures of a unit teacher aimed at effective teaching management, pedagogical diagnostics, and assessment | |
| After completing the course, the student will acquire knowledge, skills, and competencies, i. be able to: Knowledge Define and apply basic didactic principles, methods, forms, and tools in the teaching pro- university-level professional subjects. Identify and specify educational procedures of a uni- teacher aimed at effective teaching management, pedagogical diagnostics, and assessme | |
| learning outcomes. Recognize different approaches to pedagogical evaluation and their implement effective educational process at the university level. Skills Implement effective educational methods and techniques into the teaching of professional su tailored to the needs of university students. Conduct pedagogical diagnostics, assess st progress, and apply appropriate evaluation methods to improve learning outcomes. Analy reflect on one's own teaching process, identify areas for improvement, and enhance the te of professional subjects, including the rationalization of the time and content structure of tea Present specific proposals for improving the teaching process, including the use of new techno and innovative pedagogical approaches. Competencies Confidently and effectively manage the teaching of university subjects, applying educ competencies that consider the specifics of higher education. Critically reflect on one pedagogical practice and the learning outcomes of students to improve teaching metho achieve a higher quality of the educational process. Apply innovative solutions to streamli optimize the teaching process, aiming to increase the engagement and success of university streamling outcomes is process. | iss of ersity nt of ct or jects lents e and ching hing |

The personality of a university teacher. Teaching styles. Student in university education. Student learning styles. Possibilities of adapting teaching styles and student learning styles. University teacher–student interaction and communication in the teaching process. Pedagogical competencies

of a university teacher. Didactic analysis of the curriculum; teaching materials and textbooks. Forms of university teaching. Methods of university teaching. Verification methods and student assessment. Creation of a didactic test. Designing university teaching process. University teacher self-reflection.

Recommended literature:

Beránek, J. (2023). Moderní pedagogické metody a přístupy. Praha: Portál.

Fiala, M. (2023). Didaktika a metodika v současné škole. Praha: Grada Publishing.

Kováč, M. (2023). Vzdelávanie v 21. storočí: Inovatívne prístupy a metódy. Nitra: Vydavateľstvo UKF v Nitre.

Koudelka, J. (2023). Moderní didaktika a její aplikace. Praha: Karolinum.

Křížová, M., & Šebová, P. (2023). Vzdělávání učitelů: Teoretické a praktické přístupy. Praha: Triton.

Kučerová, M. (2023). Vzdělávání učitelů a profesionální rozvoj. Praha: Triton.

Mocová, M., & Lázňovská, M. (2023). Pedagogika a jej aplikácie v praxi. Bratislava:

Vydavateľstvo Spolku slovenských pedagogických pracovníkov.

Novák, J., & Pol, M. (2024). Pedagogické výzkumy a inovace ve vzdělávání. Praha: Portál.

Sikora, J. (2022). Didaktika a metodika vzdelávania: Nové výzvy a trendy. Bratislava:

Vydavateľstvo Univerzity Komenského v Bratislave.

Škoda, J. (2022). Efektivní výuka: Praktické strategie a metody. Praha: Grada Publishing. Švec, J. (2023). Didaktika a školní politika: Teorie a praxe. Praha: Grada Publishing. Vojtová, K. (2024). Diferenciace a inkluze ve vzdělávání. Praha: Wolters Kluwer.

Course language:

slovak

Notes:

| TUCS. | | |
|---|---------------|-------|
| Course assessment Total number of assessed studen | ts: 121 | |
| abs | n | neabs |
| 98.35 | 0.0 | 1.65 |
| Provides: doc. PaedDr. Renáta (| Drosová, PhD. | |
| Date of last modification: 14.09 | 0.2024 | |
| Approved: prof. RNDr. Tomáš M | Madaras, PhD. | |

| University: P. J. Šaf | árik University in Košice | |
|---|----------------------------------|-------------|
| Faculty: Faculty of | Science | |
| Course ID: ÚMV/ ODP/14 | Course name: PhD the | sis defence |
| Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 30 | |
| Recommended sem | ester/trimester of the co | urse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour | se completion: | |
| Learning outcomes | | |
| Brief outline of the | course: | |
| Recommended liter | ature: | |
| Course language: | | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 38 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| Provides: | | |
| Date of last modific | ation: 07.12.2021 | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD |). |

| Faculty: Faculty of So | cience |
|--|--|
| Course ID: ÚMV/ dPLT/10 | Course name: Polyhedral theory |
| Course type, scope an Course type: Lectur Recommended cour Per week: 4 Per stue Course method: pre | e ·se-load (hours): dy period: 56 |
| Number of ECTS cre | edits: 7 |
| Recommended semes | ster/trimester of the course: 4. |
| Course level: III. | |
| Prerequisities: | |
| theorems from the lec the relationships betw | e completion: rse, it is necessary to demonstrate the ability to formulate definitions and ctured material together with their proofs, and to present an understanding of geen particular concepts and results. subject is based on the results of an oral exam (consisting of two theoretical |
| Learning outcomes: After completing the convex polyhedra and | course, the student will be acquainted with basic overview of the theory of a polyhedral maps. |
| Week 2: Basic prope Euler's formula and it Week 3: Platonic, Arc Weeks 4 - 6: Characte Week 7: Hamiltonian Week 8: The longest of Week 9: Face vectors Weeks 10 - 11: Local Week 12: Sphere insc | omplexes, maps, planar graphs. erties of three-dimensional convex polyhedra (operations with polyhedra, s consequences). chimedean and related polyhedra. erization of graphs of convex polyhedra, Steinitz's theorem. |
| B. Grunbaum: Conver G.M. Ziegler: Lecture | é mnohosteny, Veda Bratislava 1981 x polytopes (2nd edition), Springer New York, 2003 es on Polytopes, Springer-Verlag, New York, 1996 s: Light subgraphs of graphs embedded in the plane - a survey, Discrete |
| Course language: | |

| Notes: Basic knowledge of geometry and advanced know | ledge of graph theory are assumed. |
|--|------------------------------------|
| Course assessment Total number of assessed students: 4 | |
| N | Р |
| 0.0 | 100.0 |
| Provides: prof. RNDr. Tomáš Madaras, PhD. | |
| Date of last modification: 14.09.2021 | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | |

| | arik University in Košice | |
|---|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ POP/22 | Course name: Popularisat | tion of science |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | rse-load (hours): dy period: | |
| Number of ECTS c | redits: 5 | |
| Recommended sem | ester/trimester of the cours | se: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour | | |
| Learning outcomes: Demonstrated ability communication, iden | y to present science to the ntify the target group and a | lay public, use interactive methods of scientific dapt the communication language to the level of |
| Learning outcomes: Demonstrated ability communication, iden professional knowled | y to present science to the ntify the target group and a | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the Recommended liter | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the Recommended liter Course language: | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: ature: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the Recommended liter Course language: Notes: Course assessment | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: ature: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the Recommended liter Course language: Notes: Course assessment | y to present science to the ntify the target group and a dge. A PhD student is able to entific work, but also in the course: ature: | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups wider context of science. |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the Recommended liter Course language: Notes: Course assessment | y to present science to the ntify the target group and ad dge. A PhD student is able to entific work, but also in the course: ature: essed students: 0 abs | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups wider context of science. n |
| Learning outcomes: Demonstrated ability communication, iden professional knowled in the field of his sci Brief outline of the of Recommended liter Course language: Notes: Course assessment Total number of asse | y to present science to the ntify the target group and addge. A PhD student is able to entific work, but also in the course: ature: essed students: 0 abs 0.0 | lay public, use interactive methods of scientific dapt the communication language to the level of arouse interest and motivate specific target groups wider context of science. n |

| | árik University in Košice | |
|---|--|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ VYS/22 | Course name: Presentat | ion of results in seminar |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS ci | redits: 5 | |
| Recommended seme | ester/trimester of the cou | rse: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Presentation at the se | - | |
| Dry activaly manticin | ating in the geneinen the | DhD student demonstrates the shility to identify |
| evaluate, and apply demonstrates the abi and applying them c an innovative way, a research results by a | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through | PhD student demonstrates the ability to identify, or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating h Slovak or a foreign language. |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the Recommended liter | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the o Recommended liter Course language: | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the Recommended liter | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: ature: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the o Recommended liter Course language: Notes: Course assessment | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: ature: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the o Recommended liter Course language: Notes: Course assessment | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: ature: | or research methodology in his field of study. He c scientific problem by using the latest approaches npetence in using existing theories and concepts in original scientific knowledge and communicating h Slovak or a foreign language. |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the o Recommended liter Course language: Notes: Course assessment | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: ature: essed students: 54 abs | n |
| evaluate, and apply demonstrates the abia and applying them c an innovative way, a research results by a Brief outline of the o Recommended liter Course language: Notes: Course assessment Total number of asse | correct scientific methods ility to reflect on a specific ritically. Demonstrates con as well as generating new dequate means and through course: ature: essed students: 54 abs 100.0 | n |

| | rik University in Košice | |
|---|--|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ ZRIG/22 | Course name: Principal in | vestigator of an internal grant (VVGS) |
| Course type, scope a Course type: Recommended cou Per week: Per stuc Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 10 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Principal investigato | se completion: r of an internal grant (VVGS | 8) |
| problem within the in their time schedule, the internal VVGS g established procedur | nternal grant system at UPJŠ. measurable outputs and ade grant acquires the ability to e, to be responsible for achie | cess a successful application for his own research Acquires skills with the design of research stages, equate distribution of funds. The very solution of implement the project intention according to the eving the set outputs. As a responsible researcher, |
| the PhD student acquiof results. | ires competencies in project | management, its administration, and presentation |
| - | | management, its administration, and presentation |
| of results. | course: | management, its administration, and presentation |
| of results. Brief outline of the o | course: | management, its administration, and presentation |
| of results. Brief outline of the o Recommended litera | course: | management, its administration, and presentation |
| of results. Brief outline of the of Recommended liter: Course language: | course: ature: | management, its administration, and presentation |
| of results. Brief outline of the of Recommended liters Course language: Notes: Course assessment | course: ature: | n nanagement, its administration, and presentation |
| of results. Brief outline of the of Recommended liters Course language: Notes: Course assessment | course: ature: essed students: 9 | |
| of results. Brief outline of the of Recommended liters Course language: Notes: Course assessment | essed students: 9 abs | n |
| of results. Brief outline of the of Recommended litera Course language: Notes: Course assessment Total number of asse | course: ature: essed students: 9 abs 100.0 | n |

| | rik University in Košice |
|---|--|
| Faculty: Faculty of S | cience |
| Course ID: ÚMV/ dPMK/10 | Course name: Probability method in combinatorics |
| Course type, scope a Course type: Lectur Recommended cou Per week: 4 Per stu Course method: pre | re rse-load (hours): Idy period: 56 |
| Number of ECTS cr | redits: 7 |
| Recommended seme | ester/trimester of the course: 1., 3. |
| Course level: III. | |
| Prerequisities: | |
| | of the probabilistic method, the ability to formulate definitions and statements, tatements, to explain the individual steps in proofs and to mention possibilities lired. |
| | |
| combinatorics and g probability in proving | andomness in graph theory and applications of the probabilistic method in graph theory. The obtained overview of the ways of using basic results of |
| Introduction to the r combinatorics and g probability in proving forms of this method Brief outline of the o 1. Probability Theory graph) 2. Probabilistic Me intersecting sets syste 3. Linearity of Expect 4. Alterations (Market 5. The Second Mome | randomness in graph theory and applications of the probabilistic method in graph theory. The obtained overview of the ways of using basic results of g the existence of objects with the required properties, understanding of various and knowledge of possible applications. |
| Introduction to the r combinatorics and g probability in proving forms of this method Brief outline of the o 1. Probability Theory graph) 2. Probabilistic Me intersecting sets syste 3. Linearity of Expect 4. Alterations (Marko 5. The Second Mome 6. The Lovász Local 7. Chernoff bound Recommended litera 1. N. Alon, J. Spence 2. M. Molloy, B. Rec | randomness in graph theory and applications of the probabilistic method in graph theory. The obtained overview of the ways of using basic results of g the existence of objects with the required properties, understanding of various and knowledge of possible applications. Course: y (probability space, event, probability, random variable, expectation, random thod - First Moment Principle (Ramsey numbers, hypergraph coloring, em/Kneser graph, pairs of sets) ctation (Hamiltonian graphs, splitting graphs) ov's inequality, independent sets, high girth and high chromatic number) ent (Chebyshev's inequality, threshold functions, the clique number) Lemma (hypergraph coloring again, directed cycles) |
| Introduction to the r combinatorics and g probability in proving forms of this method Brief outline of the o 1. Probability Theory graph) 2. Probabilistic Me intersecting sets syste 3. Linearity of Expect 4. Alterations (Marko 5. The Second Mome 6. The Lovász Local 7. Chernoff bound Recommended litera 1. N. Alon, J. Spence 2. M. Molloy, B. Rec | andomness in graph theory and applications of the probabilistic method in graph theory. The obtained overview of the ways of using basic results of g the existence of objects with the required properties, understanding of various and knowledge of possible applications. course: y (probability space, event, probability, random variable, expectation, random thod - First Moment Principle (Ramsey numbers, hypergraph coloring, em/Kneser graph, pairs of sets) etation (Hamiltonian graphs, splitting graphs) ov's inequality, independent sets, high girth and high chromatic number) ent (Chebyshev's inequality, threshold functions, the clique number) Lemma (hypergraph coloring again, directed cycles) ature: er: The Probabilistic Method, John Wiley, 1991 ed: Graph Colourings and the Probabilistic Method, Springer, 2002 |

| Course assessment Total number of assessed students: 12 | |
|--|-------|
| N | Р |
| 0.0 | 100.0 |
| Provides: RNDr. Igor Fabrici, Dr. rer. nat. | |
| Date of last modification: 19.10.2021 | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | |

| | COURSE INFORMATION LETTER |
|---|---|
| University: P. J. Šafá | árik University in Košice |
| Faculty: Faculty of S | Science |
| Course ID: KPPaPZ/PsVU/17 | Course name: Psychology for University Lecturers |
| Course type, scope a Course type: Lectu Recommended cou Per week: Per stud Course method: dis | re irse-load (hours): dy period: 28s |
| Number of ECTS cr | redits: 5 |
| Recommended seme | ester/trimester of the course: |
| Course level: III. | |
| Prerequisities: | |
| Learning outcomes: After completing the summarize and explae motivation psychology health psychology. T for the professional, to create and implement and develop the con- the application of p | tiput, its analysis as of the course are listed in the electronic bulletin board of the course. The course, students will gain knowledge that allows them to understand, ain selected psychological knowledge from cognitive psychology, emotion and gy, personality psychology, developmental, social, educational psychology and they will acquire skills to apply the above psychological knowledge necessary competent performance of university teaching practice of doctoral students the teaching of a professional topic with applied psychological knowledge mpetences to create and implement teaching of a professional topic with sychological knowledge, as well as to evaluate their performance and the classmates in the form of constructive feedback. |
| The content of the corpsychology of emotion psychology and hear interactive, experient of independence, act in the teaching processocial and competent student relationship of | ourse is based on selected psychological knowledge of cognitive psychology, ons and motivation, personality psychology, developmental, social, educational alth psychology. Teaching is realized by a combination of lectures with tial methods, discussion, open communication with mutual respect, support tivity and motivation of students. Syllabus: University teacher and his work ess with a focus on: teachers in relation to themselves (cognitive, personal, cies in the use of methods), in relation to students and as part of the teacher- on the basis of selected areas of cognitive psychology, psychology of emotions elopmental psychology, social psychology, educational psychology and health |

psychology with application to the university environment

Recommended literature:

Alexitch, L. R. (2005). Applying social psychology to education. Social Psychology.–Ed.: Schneider F., Gruman J., Coutts L.–Sage Publications, Inc, 205-228.

Fry, H., Ketteridge, S., & Marshall, S. (2008). A handbook for teaching and learning in higher education: Enhancing academic practice. Routledge.

Mareš, J.: Pedagogická psychologie. Portál, 2013.

| Kniha psychologie. Universum, 201 Čáp, J., Mareš, J.: Psychologie pro u Vágnerová, M.: Školní poradenská p | čitele. Praha: Portál 2007. | Praha: Karolínum 2005. |
|--|-----------------------------|------------------------|
| Course language: slovak | | |
| Notes: | | |
| Course assessment Total number of assessed students: 8 | 37 | |
| abs | n | neabs |
| 98.85 | 0.0 | 1.15 |
| Provides: PhDr. Anna Janovská, Phl |). | |
| Date of last modification: 02.12.202 | 24 | |
| Approved: prof. RNDr. Tomáš Mad | aras, PhD. | |

| University: P. J. Šafa | árik University in Košice | |
|--|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ Q1SA/22 | Course name: Q1 journal | as co-author |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | rse-load (hours): dy period: | |
| Number of ECTS c | redits: 30 | |
| Recommended sem | ester/trimester of the cours | se: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | se completion: l in a journal of category Q1 | as co-author. |
| degree of ability to id He demonstrates the applying them critica an innovative way, a according to the high | lentify, evaluate, and apply c e ability to reflect on a scien ally. He demonstrates the co s well as to generate new or lest qualitative and ethical sta | co-author, the PhD student demonstrates a high orrect scientific methods or research methodology. ntific problem by using the latest approaches and impetence to use existing theories and concepts in iginal scientific knowledge, which he can publish andards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |
| Brief outline of the | course: | |
| Recommended liter | ature: | |
| Course language: | ~ | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 2 | |
| | abs | n |
| | 100.0 | 0.0 |
| Provides: | | |
| Date of last modific | ation: 08.11.2022 | |
| | | |

| Eagulture Eagurlture - f | 5 | |
|---|--|--|
| Faculty: Faculty of | Science | |
| Course ID: ÚMV/ Q11A/22 | Course name: Q1 journal | as first or corresponding author |
| Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 40 | |
| Recommended sem | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | - | as first or corresponding author. |
| | degree of ability to identify | y, evaluate, and apply correct scientific methods |
| the latest approaches theories and concept which he can publis PhD student demon to finalize his own io | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. | ability to reflect on a scientific problem by using A He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| the latest approaches theories and concept which he can publis PhD student demon | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon to finalize his own ic Brief outline of the Recommended liter | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own is Brief outline of the | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon to finalize his own ic Brief outline of the Recommended liter | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own io Brief outline of the Recommended liter Course language: | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: essed students: 5 | bility to reflect on a scientific problem by using y. He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: essed students: 5 abs | hibility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n |
| the latest approaches theories and concept which he can publis PhD student demon- to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asse | blogy. He demonstrates the a s and applying them critically is in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: essed students: 5 abs 100.0 | hibility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n |

| Faculty Faculty of | | |
|---|--|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ Q2SA/22 | Course name: Q2 journal | as co-author |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 20 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | se completion: in a journal of category Q2 | as co-author. |
| | | prrect scientific methods or research methodology. tific problem by using the latest approaches and |
| an innovative way, a according to the high | s well as to generate new ori est qualitative and ethical sta | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates viewers' suggestions, to finalize his own ideas. |
| an innovative way, a according to the high | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to critical Brief outline of the o Recommended liter | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to criticall Brief outline of the c | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to critical Brief outline of the o Recommended liter | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to critical Brief outline of the o Recommended litera Course language: | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: ature: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended liter Course language: Notes: Course assessment | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: ature: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended liter Course language: Notes: Course assessment | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: ature: | mpetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates viewers' suggestions, to finalize his own ideas. |
| an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended liter Course language: Notes: Course assessment | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: ature: essed students: 4 abs | npetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates viewers' suggestions, to finalize his own ideas. |
| an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended liters Course language: Notes: Course assessment Total number of asse | s well as to generate new ori est qualitative and ethical sta y evaluate and respond to re course: ature: essed students: 4 abs 100.0 | npetence to use existing theories and concepts in ginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates viewers' suggestions, to finalize his own ideas. |

| Ea avaltava Ea14 64 | árik University in Košice | |
|---|---|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ Q21A/22 | Course name: Q2 journal | as first or corresponding author |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 30 | |
| Recommended sem | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | 1 | as first or corresponding author. |
| | degree of ability to identify | y, evaluate, and apply correct scientific methods |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own io | s and applying them critically s in an innovative way, as wel sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using y. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| the latest approaches theories and concept which he can publis PhD student demons | s and applying them critically s in an innovative way, as wel sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own ic Brief outline of the Recommended liter | s and applying them critically s in an innovative way, as wel sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using 7. He demonstrates the competence to use existing 11 as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the | s and applying them critically s in an innovative way, as wel sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using 7. He demonstrates the competence to use existing 11 as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own ic Brief outline of the Recommended liter | s and applying them critically s in an innovative way, as wel sh according to the highest q strates the ability to critically deas. | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the Recommended liter Course language: | s and applying them critically s in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: | bility to reflect on a scientific problem by using 7. He demonstrates the competence to use existing 11 as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | s and applying them critically s in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | s and applying them critically s in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: | bility to reflect on a scientific problem by using . He demonstrates the competence to use existing ll as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment | s and applying them critically s in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: essed students: 1 abs | hility to reflect on a scientific problem by using A. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n |
| the latest approaches theories and concept which he can publis PhD student demons to finalize his own id Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asse | s and applying them critically s in an innovative way, as well sh according to the highest q strates the ability to critically deas. course: rature: essed students: 1 abs 100.0 | hility to reflect on a scientific problem by using A. He demonstrates the competence to use existing Il as to generate new original scientific knowledge, pualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n |

| Foolty Foolty of | | |
|--|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ Q3SA/22 | Course name: Q3 journal | as co-author |
| Course type, scope a Course type: Recommended cou Per week: Per stuc Course method: pr | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 15 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Publication accepted | se completion: in a journal of category Q3 | as co-author. |
| | | prrect scientific methods or research methodology. tific problem by using the latest approaches and |
| applying them critica an innovative way, a according to the high | ally. He demonstrates the constrates the constraints well as to generate new ori est qualitative and ethical states | mpetence to use existing the fatest approaches and iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates wiewers' suggestions, to finalize his own ideas. |
| applying them critica an innovative way, a according to the high | ally. He demonstrates the constrates the constraints well as to generate new ori est qualitative and ethical states and respond to re | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to critical | ally. He demonstrates the constrates well as to generate new ori est qualitative and ethical state y evaluate and respond to re course: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to critical Brief outline of the o | ally. He demonstrates the constrates well as to generate new ori est qualitative and ethical state y evaluate and respond to re course: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to critical Brief outline of the o Recommended liter | ally. He demonstrates the constrates well as to generate new ori est qualitative and ethical state y evaluate and respond to re course: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended liter Course language: | ally. He demonstrates the constrates the constraints well as to generate new oriest qualitative and ethical staty evaluate and respond to recourse: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to critical Brief outline of the of Recommended litera Course language: Notes: Course assessment | ally. He demonstrates the constrates the constraints well as to generate new oriest qualitative and ethical staty evaluate and respond to recourse: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish ndards of the field. The PhD student demonstrates |
| applying them critica an innovative way, a according to the high the ability to critical Brief outline of the of Recommended litera Course language: Notes: Course assessment | ally. He demonstrates the consistence of a set of the consecutive and ethical states and ethical states and respond to recourse: | mpetence to use existing theories and concepts in iginal scientific knowledge, which he can publish indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |
| applying them critica an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended litera Course language: Notes: Course assessment | ally. He demonstrates the consistence of a set of the end of the e | npetence to use existing theories and concepts in iginal scientific knowledge, which he can publish indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |
| applying them critica an innovative way, a according to the high the ability to criticall Brief outline of the o Recommended litera Course language: Notes: Course assessment Total number of asse | ally. He demonstrates the consistent of the state of the | npetence to use existing theories and concepts in iginal scientific knowledge, which he can publish indards of the field. The PhD student demonstrates eviewers' suggestions, to finalize his own ideas. |

| Faculty: Faculty of S | | |
|---|---|--|
| a actuary of a actuary of 0 | Science | |
| Course ID: ÚMV/ Q31A/22 | Course name: Q3 journal | as first or corresponding author |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | |
| Number of ECTS cr | redits: 25 | |
| Recommended seme | ester/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Publication accepted | | as first or corresponding author |
| demonstrates a high or research methodo | degree of ability to identify | e first or corresponding author, the PhD student y, evaluate, and apply correct scientific methods bility to reflect on a scientific problem by using |
| theories and concepts which he can publis | s in an innovative way, as wel h according to the highest q strates the ability to critically | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, qualitative and ethical standards of the field. The v evaluate and respond to reviewers' suggestions, |
| theories and concepts which he can publish PhD student demons | s in an innovative way, as wel h according to the highest q strates the ability to critically leas | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id | s in an innovative way, as wel h according to the highest q strates the ability to critically leas | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c | s in an innovative way, as wel h according to the highest q strates the ability to critically leas | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended liters | s in an innovative way, as wel h according to the highest q strates the ability to critically leas | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended liters Course language: | s in an innovative way, as wel h according to the highest q strates the ability to critically leas course: ature: | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the construction Recommended literat Course language: Notes: Course assessment | s in an innovative way, as wel h according to the highest q strates the ability to critically leas course: ature: | A. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the construction Recommended literat Course language: Notes: Course assessment | s in an innovative way, as wel h according to the highest q strates the ability to critically leas course: ature: | y. He demonstrates the competence to use existing l as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the construction Recommended literat Course language: Notes: Course assessment | s in an innovative way, as well h according to the highest q strates the ability to critically leas course: ature: essed students: 0 abs | n |
| theories and concepts which he can publish PhD student demons to finalize his own id Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asse | s in an innovative way, as welch according to the highest quarter the ability to critically leas course: ature: | n |

| Faculty: Faculty of S | Science | | |
|--|--|--|--|
| Course ID: ÚMV/ Q4SA/22 | Course name: Q4 journal as co-author | | |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pr | rse-load (hours): dy period: | | |
| Number of ECTS cr | redits: 10 | | |
| Recommended seme | ester/trimester of the | course: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour Publication accepted | se completion: in a journal of catego | ry Q4 as co-author. | |
| Learning outcomes: | | | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate | d apply correct scient on a scientific probles trates the competence enerate new original so we and ethical standard and respond to review | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability vers' suggestions, to finalize his own ideas. | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the o | d apply correct scient on a scientific problestrates the competence enerate new original so we and ethical standard and respond to review course: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the o Recommended liter | d apply correct scient on a scientific problestrates the competence enerate new original so we and ethical standard and respond to review course: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to ge the highest qualitative to critically evaluate Brief outline of the o Recommended liters Course language: | d apply correct scient on a scientific problestrates the competence enerate new original so we and ethical standard and respond to review course: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the o Recommended liter | id apply correct scient on a scientific probles trates the competence enerate new original so we and ethical standard and respond to review course: ature: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the of Recommended liters Course language: Notes: | id apply correct scient on a scientific probles trates the competence enerate new original so we and ethical standard and respond to review course: ature: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the of Recommended liters Course language: Notes: | ad apply correct scient: on a scientific problestrates the competence enerate new original so we and ethical standard and respond to review course: ature: | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability vers' suggestions, to finalize his own ideas. | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the of Recommended liters Course language: Notes: | ad apply correct scient: on a scientific problestrates the competence enerate new original so we and ethical standard and respond to review course: ature: essed students: 0 abs | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability vers' suggestions, to finalize his own ideas. | |
| identify, evaluate, and the ability to reflect critically. He demon way, as well as to get the highest qualitative to critically evaluate Brief outline of the of Recommended liters Course language: Notes: Course assessment Total number of asset | ad apply correct scient: on a scientific problestrates the competence enerate new original service and ethical standard and respond to review course: ature: essed students: 0 abs 0.0 | ific methods or research methodology. He demonstrates em by using the latest approaches and applying them e to use existing theories and concepts in an innovative cientific knowledge, which he can publish according to ls of the field. The PhD student demonstrates the ability vers' suggestions, to finalize his own ideas. | |

| | arik University in Košice | | |
|--|--|--|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ Q41A/22 | | | |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pr | rse-load (hours): dy period: | | |
| Number of ECTS cr | redits: 20 | | |
| Recommended seme | ester/trimester of the cours | e: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour Publication accepted | | as first or corresponding author. | |
| | | | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic | blogy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. | the first or corresponding author, the PhD student y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons | blogy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic | logy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o | logy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liter | logy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liters Course language: | logy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. course: ature: | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liters Course language: Notes: Course assessment | logy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. course: ature: | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liters Course language: Notes: Course assessment | essed students: 2 | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using y. He demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liters Course language: Notes: Course assessment | elogy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. course: ature: essed students: 2 abs | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using by the demonstrates the competence to use existing that the demonstrates the demonstrates the competence to use existing that the demonstrates the competence to use existing that the demonstrates the competence to use existing that the demonstrates the demonst | |
| or research methodo the latest approaches theories and concepts which he can publis PhD student demons to finalize his own ic Brief outline of the o Recommended liters Course language: Notes: Course assessment Total number of asse | elogy. He demonstrates the a s and applying them critically s in an innovative way, as wel h according to the highest q strates the ability to critically leas. course: ature: essed students: 2 abs 100.0 | y, evaluate, and apply correct scientific methods ability to reflect on a scientific problem by using by the demonstrates the competence to use existing as to generate new original scientific knowledge, qualitative and ethical standards of the field. The y evaluate and respond to reviewers' suggestions, n | |

| University: P. J. Šafa | árik University in Košice | | |
|--|--|--------|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ dVOP/12 | Course name: Reviewer | report | |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | urse-load (hours): dy period: resent | | |
| Number of ECTS c | | | |
| | ester/trimester of the cour | rse: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour | se completion: | | |
| Learning outcomes | : | | |
| Brief outline of the | course: | | |
| Recommended liter | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | essed students: 1 | | |
| | abs | n | |
| | 100.0 | 0.0 | |
| Provides: | | - | |
| Date of last modific | ation: | | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD. | | |

| University: P. J. Šafár | ik University in Košice | | |
|--|--|---|--|
| Faculty: Faculty of So | cience | | |
| Course ID: ÚMV/ SCI/22 | Course name: SCI or SCOPUS citation | | |
| Course type, scope an Course type: Recommended cour Per week: Per study Course method: pre | rse-load (hours): y period: | | |
| Number of ECTS cre | edits: 8 | | |
| Recommended semes | ster/trimester of the cour | se: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cours Obtained citation regi | e completion: stered in SCI or Scopus. | | |
| researched field, base problem in such a wa source demonstrates | ed on the ability to formuly that generates new know | very well-founded scientific knowledge in the late research questions, to reflect on a scientific vledge. At the same time, a citation in an indexed nunicate new knowledge, which is a significant est expert level. | |
| Brief outline of the co | ourse: | | |
| Recommended litera | ture: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asses | sed students: 3 | | |
| | abs | n | |
| 1 | 100.0 0.0 | | |
| Provides: | | | |
| Date of last modifica | tion: 08.11.2022 | | |
| | | | |

| University: P. J. Šafa | árik University in Košice | | |
|--|--|---|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ VPZ/22 | Course name: Scientific work after sending to the editorial office | | |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | | |
| Number of ECTS cr | redits: 5 | | |
| Recommended sem | ester/trimester of the cours | e: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour Scientific work after | se completion: being sent to the editorial of | fice as an author/co-author. | |
| demonstrates a high or research methodo the latest approaches theories and concept which he can publis | degree of ability to identify blogy. He demonstrates the a s and applying them critically s in an innovative way, as well h according to the highest q | fic journal as an author/co-author, the PhD student y, evaluate, and apply correct scientific methods bility to reflect on a scientific problem by using y. He demonstrates the competence to use existing l as to generate new original scientific knowledge, ualitative and ethical standards of the field. The e his own ideas in a structured form. | |
| Brief outline of the | course: | | |
| Recommended liter | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | essed students: 8 | | |
| | abs | n | |
| | 100.0 | 0.0 | |
| Provides: | | | |
| Date of last modific | ation: 08.11.2022 | | |
| | | | |

| University: P. J. Šafán | ik University in Košice | | |
|--|---|---|--|
| Faculty: Faculty of Science | | | |
| Course ID: ÚMV/ dVTGa/10 | Course name: Selected topics in graph theory I | | |
| Course type, scope a Course type: Lectur Recommended cour Per week: 2 Per stu Course method: pre | e se-load (hours): dy period: 28 | | |
| Number of ECTS cr | edits: 7 | | |
| Recommended seme | ster/trimester of the course | e: 2. | |
| Course level: III. | | | |
| Prerequisities: | | | |
| theorems from the lead the relationships betw | rse, it is necessary to demo etured material together with even particular concepts and | onstrate the ability to formulate definitions and a their proofs, and to present an understanding of results. Its of an oral exam (consisting of two theoretical | |
| are not covered by l master degree study, a | basic or advanced courses | inted with specific topics of graph theory which in discrete mathematics during the bachelor or research of teams, whose members contribute to hematics. | |
| 3-colourability of gra | n graph theory (5 weeks) phs (4 weeks) | bourhoods of vertices (4 weeks) | |
| Recommended litera Recent publications f | ture: rom international scientific j | ournals. | |
| Course language: Slovak and English | | | |
| Notes: | | | |
| Course assessment Total number of asses | sed students: 20 | | |
| | N | Р | |
| | 0.0 | 100.0 | |
| Provides: doc. RNDr. Fabrici, Dr. rer. nat. | Roman Soták, PhD., prof. I | RNDr. Tomáš Madaras, PhD., RNDr. Igor | |
| Date of last modifica | tion: 20.09.2021 | | |

Approved: prof. RNDr. Tomáš Madaras, PhD.

| University: P. J. Šafá | rik University in Košice | |
|--|--|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ dVTGb/10 | Course name: Selected top | pics in graph theory II |
| Course type, scope a Course type: Lectur Recommended cour Per week: 2 Per stu Course method: pre | e ·se-load (hours): dy period: 28 | |
| Number of ECTS cr | edits: 7 | |
| Recommended seme | ster/trimester of the cours | e: 3. |
| Course level: III. | | |
| Prerequisities: | | |
| theorems from the lead the relationships betw | rse, it is necessary to demi- ctured material together with veen particular concepts and | onstrate the ability to formulate definitions and a their proofs, and to present an understanding of results. Its of an oral exam (consisting of two theoretical |
| are not covered by I master degree study, | basic or advanced courses | inted with specific topics of graph theory which in discrete mathematics during the bachelor or research of teams, whose members contribute to thematics. |
| | olane graphs (4 weeks) ar graph colourings (4 weeks) (3 weeks) | 5) |
| Recommended litera Recent literature from | ture: n international scientific jou | rnals. |
| Course language: Slovak and English | | |
| Notes: | | |
| Course assessment Total number of asses | ssed students: 25 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| Provides: doc. RNDr Danica Studenovská, | · · · · · | RNDr. Tomáš Madaras, PhD., prof. RNDr. |

Date of last modification: 20.09.2021

Approved: prof. RNDr. Tomáš Madaras, PhD.

| University: P. | J Šafárik | University in | Košice |
|----------------|------------|---------------|--------|
| University. 1. | J. Dalalik | Oniversity in | RUSICC |

Faculty: Faculty of Science

| Course ID: Dek. PF | Course name: Spring School for PhD Students |
|--------------------|---|
| UPJŠ/JSD/14 | |

Course type, scope and the method: Course type: Lecture Recommended course-load (hours): Per week: Per study period: 4d

Course method: distance, present

Number of ECTS credits: 2

Recommended semester/trimester of the course:

Course level: III.

Prerequisities:

Conditions for course completion:

Active participation in the Spring School of PhD students of UPJŠ.

Learning outcomes:

By actively participating in the Spring School of PhD Students of UPJŠ, the PhD student demonstrates a high level of ability to process the issues of his dissertation for a multidisciplinary audience with an emphasis on clarifying the motivation, scientific problem, processing methodology and own contribution to the solution of the selected topic. The PhD student demonstrates the ability to professionally discuss various research topics, present his own positions and accept a plurality of opinions. Demonstrates the ability to communicate research results to a wider professional audience with adequate means and through the Slovak language.

Brief outline of the course:

1. Interdisciplinary lectures from the fields of medicine, natural sciences, law, public affairs, humanities. Lecturers - top foreign or national experts from the mentioned fields.

2. Scientific lectures in sections created within related disciplines. Lecturers - top experts from UPJŠ from the mentioned fields.

3. Scientific contributions of PhD students in sections of related fields.

4. Panel discussions on the issue of PhD studies and current trends in the development of scientific disciplines at UPJŠ.

Recommended literature:

Proceedings of the Spring School of Doctoral Students.

Course language:

Notes:

Course assessment

Total number of assessed students: 202

| abs | n |
|-------|-----|
| 100.0 | 0.0 |

Provides: doc. RNDr. Andrea Straková Fedorková, PhD.

Date of last modification: 08.11.2022

Approved: prof. RNDr. Tomáš Madaras, PhD.

| University: P. J. Šafa | árik University in Košice | | |
|---|--|-----|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ dZSP/12 | | | |
| Course type, scope : Course type: Recommended cou Per week: Per stu Course method: pr | urse-load (hours): dy period: resent | | |
| Number of ECTS c | | | |
| Recommended sem | ester/trimester of the cour | se: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour | se completion: | | |
| Learning outcomes | | | |
| Brief outline of the | course: | | |
| Recommended liter | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | essed students: 14 | | |
| abs n | | | |
| | 100.0 0.0 | | |
| Provides: | | | |
| Date of last modific | ation: | | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD. | | |

| University: P. J. Šafa | árik University in Košice | | |
|--|----------------------------------|-----|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ dVBP/12 | | | |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | irse-load (hours): dy period: | | |
| Number of ECTS cr | redits: 6 | | |
| Recommended sem | ester/trimester of the cours | e: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour | se completion: | | |
| Learning outcomes | | | |
| Brief outline of the | course: | | |
| Recommended liter | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | essed students: 7 | | |
| abs n | | | |
| | 100.0 | 0.0 | |
| Provides: | | | |
| Date of last modific | ation: | | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD. | | |

| University: P. J. Šafa | arik University in Košice | | |
|--|--|----|--|
| Faculty: Faculty of S | Science | | |
| Course ID: ÚMV/ Course name: Supervising a student's scientific work | | | |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | rse-load (hours): dy period: esent | | |
| Number of ECTS ci | | | |
| | ester/trimester of the cours | e: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cour | se completion: | | |
| Learning outcomes: | | | |
| Brief outline of the | course: | | |
| Recommended liter | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | essed students: 3 | | |
| | abs n | | |
| | 100.0 0.0 | | |
| Provides: | | | |
| Date of last modific | ation: | | |
| Approved: prof. RN | Dr. Tomáš Madaras, PhD. | | |

| | rik University in Košice | |
|--|---|---|
| Faculty: Faculty of S | cience | |
| Course ID: ÚMV/ PSV/22Course name: Supervision of student scientific work | | |
| Course type, scope a Course type: Recommended cour Per week: Per stud Course method: pre | rse-load (hours): ly period: | |
| Number of ECTS cr | edits: 8 | |
| Recommended seme | ster/trimester of the cours | e: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cours Supervision of Stude | se completion: nt's Scientific Activity | |
| scientifically based ki and approaches. Dem | nowledge in the field of study constrates the ability to critica | OČ, the PhD student demonstrates broad and y, as well as knowledge of a wide range of methods ally assess a professional problem and its proposed |
| | of pedagogical sciences to hi | pose another solution. He applies knowledge and is own field. |
| | of pedagogical sciences to hi | |
| skills from the field o | of pedagogical sciences to hi | |
| skills from the field or Brief outline of the c | of pedagogical sciences to hi | |
| skills from the field of Brief outline of the c Recommended litera | of pedagogical sciences to hi | |
| skills from the field of Brief outline of the c Recommended litera Course language: | of pedagogical sciences to hi course: ature: | |
| skills from the field of Brief outline of the c Recommended litera Course language: Notes: Course assessment | of pedagogical sciences to hi course: ature: | |
| skills from the field of Brief outline of the c Recommended litera Course language: Notes: Course assessment | of pedagogical sciences to hi course: ature: ssed students: 0 | is own field. |
| skills from the field of Brief outline of the c Recommended litera Course language: Notes: Course assessment | of pedagogical sciences to hi course: ature: ssed students: 0 abs | n |
| skills from the field of Brief outline of the c Recommended litera Course language: Notes: Course assessment Total number of asses | of pedagogical sciences to his course: ature: ssed students: 0 abs 0.0 | n |

| Fooulty: Fooulty of | | |
|---|--|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ PPC1/22Course name: Teaching activities 1 h/s | | |
| Course type, scope a Course type: Recommended cou Per week: Per stue Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 2 | |
| Recommended sem | ester/trimester of the | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Direct teaching activ | 1 | |
| Learning outcomes: Through pedagogica | | ident demonstrates the ability to transfer and integrate |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and | al activity, the PhD stu s own field of study l strategies of study gu He is capable of design current trends in higher digital competencies. | ident demonstrates the ability to transfer and integrate into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process r education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter | al activity, the PhD stu s own field of study l strategies of study gr He is capable of design current trends in higher digital competencies. course: ature: | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study l strategies of study gr He is capable of design current trends in higher digital competencies. course: ature: | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study d strategies of study gu He is capable of design current trends in higher digital competencies. course: ature: essed students: 4 | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process r education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: ature: essed students: 4 abs | n |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asse | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: ature: essed students: 4 abs 100.0 | n |

| | árik University in Koš | |
|---|---|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ PC2/22Course name: Teaching activities 2 h/s | | |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 4 | |
| Recommended sem | ester/trimester of the | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Direct teaching activ | rse completion: vity 2 semester hours | |
| Learning outcomes | | udant domonstrates the ability to transfer and integrate |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with a communication and | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. | udent demonstrates the ability to transfer and integrate y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process er education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with a communication and Brief outline of the Recommended liter Course language: | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. course: rature: | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. course: rature: | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: essed students: 41 | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process er education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: essed students: 41 abs | n |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asse | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: essed students: 41 abs 100.0 | n |

| E | árik University in Koš | |
|--|--|--|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ PC3/22Course name: Teaching activities 3 h/s | | |
| Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 6 | |
| Recommended sem | ester/trimester of the | e course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Direct teaching activ | rse completion: vity 3 semester hours | |
| Learning outcomes | | |
| Through pedagogica knowledge from hi right techniques and learning outcomes. in accordance with a communication and | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. | udent demonstrates the ability to transfer and integrate y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process er education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. in accordance with a communication and Brief outline of the | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter Course language: | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. course: rature: | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with a communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in highe digital competencies. course: rature: | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with a communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: | y into education. He is able to select and apply the group management, higher education and evaluation of gning and implementing part of the educational process er education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: essed students: 0 abs | n |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asset | al activity, the PhD st s own field of study d strategies of study g He is capable of desig current trends in higher digital competencies. course: rature: essed students: 0 abs 0.0 | n |

| Easultan Easultan | árik University in Koši | |
|--|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ PC4/22Course name: Teaching activities 4 h/s | | |
| Course type, scope Course type: Recommended cou Per week: Per stu Course method: pr | ırse-load (hours): dy period: | |
| Number of ECTS c | redits: 8 | |
| Recommended sem | ester/trimester of the | course: |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Direct teaching activ | rse completion: vity 4 semester hours | |
| Learning outcomes | | |
| Through pedagogica knowledge from hi right techniques and learning outcomes. in accordance with a communication and | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | ident demonstrates the ability to transfer and integrate into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process r education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. in accordance with a communication and Brief outline of the | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter Course language: | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: rature: | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: rature: | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: rature: | into education. He is able to select and apply the roup management, higher education and evaluation of ning and implementing part of the educational process r education and the requirements placed on the level of |
| Through pedagogica knowledge from hi right techniques and learning outcomes. I in accordance with o communication and Brief outline of the Recommended liter Course language: Notes: Course assessment | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: rature: essed students: 9 abs | n |
| Through pedagogica knowledge from hi right techniques and learning outcomes. The in accordance with a communication and Brief outline of the Recommended liter Course language: Notes: Course assessment Total number of asset | al activity, the PhD stu s own field of study d strategies of study gr He is capable of design current trends in higher digital competencies. course: rature: essed students: 9 abs 100.0 | n |

| University: P. J. Šafá | rik University in Košice | | |
|--|---|---|--|
| Faculty: Faculty of S | cience | | |
| Course ID: ÚMV/ dTPG/14 | | | |
| Course type, scope a Course type: Lectur Recommended cour Per week: 4 Per stu Course method: pre | e rse-load (hours): dy period: 56 | | |
| Number of ECTS cr | edits: 7 | | |
| Recommended seme | ster/trimester of the cours | e: 1., 3. | |
| Course level: III. | | | |
| Prerequisities: | | | |
| theorems from the lead the relationships betw | rse, it is necessary to dem ctured material together with veen particular concepts and | onstrate the ability to formulate definitions and h their proofs, and to present an understanding of results. Its of an oral exam (consisting of two theoretical | |
| Learning outcomes: After completing the to planar and plane g | | equainted with basic and advanced topics related | |
| Week 2: Planar and p Weeks 3 - 5: Charact Week 6: Euler's form Weeks 7 - 10: Local s | ls of topology of the plane. lanar graphs, outerplanar gr erization theorems for plana ula and its consequences. | - | |
| S. Jendrol', H-J. Voss | a: Planar graphs: Theory an | d Algorithms, Dover Publications, 2008. embedded in the plane - A survey, Discrete | |
| Course language: Slovak and English | | | |
| Notes: | | | |
| Course assessment Total number of asse | ssed students: 0 | | |
| | Ν | Р | |
| | 0.0 | 0.0 | |

Provides: prof. RNDr. Tomáš Madaras, PhD.

Date of last modification: 14.04.2022

Approved: prof. RNDr. Tomáš Madaras, PhD.

| Faculty: Faculty of Science Course ID: ÚMV/ KZP/22 Course name: Thesis consultant Course type, scope and the method: Course type; Course type; Recommended course-load (hours): Per week: Per study period: Course method: present Course type; Number of ECTS credits: 4 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically be knowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solutior well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs abs n 100.0 0.0 Provides: Date of last modification: 08.11.2022 | University: P. J. Šafán | ik University in Košice | |
|--|--|---|--|
| KZP/22 Course type; Recommended course-load (hours): Per week: Per study period: Course method: present Number of ECTS credits: 4 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Final thesis consultant. Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically be knowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Notes: Course assessment 100.0 0.0 Provides: N | Faculty: Faculty of So | cience | |
| Course type: Recommended course-load (hours): Per week: Per study period: Course method: present Number of ECTS credits: 4 Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically be knowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: 0.0 | | | |
| Recommended semester/trimester of the course: Course level: III. Prerequisities: Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically bak nowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 | Course type: Recommended cour Per week: Per stud | rse-load (hours): y period: | |
| Course level: III. Prerequisities: Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically baknowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 | Number of ECTS cro | edits: 4 | |
| Prerequisities: Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically bak nowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 | Recommended seme | ster/trimester of the cours | se: |
| Conditions for course completion: Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically bak nowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | Course level: III. | | |
| Final thesis consultant. Learning outcomes: By consulting the final thesis, the PhD student demonstrates broad and scientifically backnowledge in the field of study, as well as knowledge of a wide range of methods and approace Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills fithe field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | Prerequisities: | | |
| By consulting the final thesis, the PhD student demonstrates broad and scientifically bak nowledge in the field of study, as well as knowledge of a wide range of methods and approac Demonstrates the ability to critically assess a professional problem and its proposed solution well as to evaluate it and possibly propose another solution. He applies knowledge and skills f the field of pedagogical sciences to his own field. Brief outline of the course: Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | | - | |
| Recommended literature: Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | By consulting the fi knowledge in the field Demonstrates the abi well as to evaluate it a the field of pedagogic | d of study, as well as knowl lity to critically assess a pr and possibly propose anoth cal sciences to his own field | ledge of a wide range of methods and approaches. rofessional problem and its proposed solution, as er solution. He applies knowledge and skills from |
| Course language: Notes: Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | | | |
| Notes: Course assessment Total number of assessed students: 10 abs 100.0 0.0 | Recommended litera | ture: | |
| Course assessment Total number of assessed students: 10 abs n 100.0 0.0 Provides: | Course language: | | |
| Total number of assessed students: 10 abs n 100.0 0.0 Provides: | Notes: | | |
| 100.0 0.0 Provides: | | sed students: 10 | |
| Provides: | | abs | n |
| | | 100.0 | 0.0 |
| Date of last modification: 08.11.2022 | Provides: | | |
| | Date of last modifica | tion: 08.11.2022 | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | Approved: prof. RNI | Dr. Tomáš Madaras, PhD. | |

| University: P. J. Šafá | rik University in Košico | e | |
|---|---|---|--|
| Faculty: Faculty of S | cience | | |
| Course ID: ÚMV/ VZP/22 | 1 8 | | |
| Course type, scope a Course type: Recommended cou Per week: Per stud Course method: pro | rse-load (hours): ly period: | | |
| Number of ECTS cr | edits: 8 | | |
| Recommended seme | ster/trimester of the c | ourse: | |
| Course level: III. | | | |
| Prerequisities: | | | |
| Conditions for cours Supervisor of the fina | - | | |
| knowledge in the fiel Demonstrates the ab well as to evaluate it the field of pedagogi | d of study, as well as kr ility to critically assess and possibly propose an cal sciences to his own | student demonstrates broad and scientifically based nowledge of a wide range of methods and approaches. a professional problem and its proposed solution, as nother solution. He applies knowledge and skills from field. | |
| Brief outline of the o | | | |
| Recommended litera | ature: | | |
| Course language: | | | |
| Notes: | | | |
| Course assessment Total number of asse | ssed students: 0 | | |
| | abs | n | |
| | 0.0 | 0.0 | |
| Provides: | | | |
| Date of last modifica | ntion: 08.11.2022 | | |
| Approved: prof. RN | | | |

| University: P. J. Šafá | rik University in Košice | |
|---|---|---|
| Faculty: Faculty of S | Science | |
| Course ID: ÚMV/ dTTG/10 | | |
| Course type, scope a Course type: Lectu Recommended cou Per week: 4 Per stu Course method: pr | re rse-load (hours): ıdy period: 56 | |
| Number of ECTS cr | edits: 7 | |
| Recommended seme | ester/trimester of the cours | e: 1., 3. |
| Course level: III. | | |
| Prerequisities: | | |
| Conditions for cour Skúška | se completion: | |
| Learning outcomes: Oboznámiť sa so zák | | kami Topologickej teórie grafov. |
| Farbenia grafov na p | ny. Vnorenia. Napäťové grafy | a pokrývajúce priestory. Rod grafov. Rody grúp. nfigurácie. Reprezentativita grafov na plochách. urácie pre plochy. |
| 2. B. Mohar, C., Tho 2001 | cker: Topological Graph The | cory, John Wiley and Sons, New York, 1987 The Johns Hopkins University Press, Baltimore, ag, Berlin, 1974 |
| Course language: Slovak or English | | |
| Notes: | | |
| Course assessment Total number of asse | essed students: 18 | |
| | Ν | Р |
| | 0.0 | 100.0 |
| Provides: doc. RND | r. Roman Soták, PhD. | |
| Date of last modifica | ation: 26.01.2022 | |
| | | |

| Faculty: Faculty of Science | |
|--|---|
| Course ID: ÚMV/ dUAL/10 | Course name: Universal algebra |
| Course type, scope a Course type: Lectur Recommended cou Per week: 3 Per stu Course method: pro | re rse-load (hours): Idy period: 42 |
| Number of ECTS credits: 5 | |
| Recommended seme | ester/trimester of the course: 1., 3. |
| Course level: III. | |
| Prerequisities: | |
| Conditions for cours Exam consisting of a | se completion: written test and of a oral examination. |
| Learning outcomes: To achieve a basic | orientation in the methods of modern algebra. Follow up on the acquired |
| To achieve a basic knowledge of algebra and be able to apply it | orientation in the methods of modern algebra. Follow up on the acquired a, expand it and generalize; gain additional knowledge of universal algebra it to specific situations. The aim is to have sufficient mathematical knowledge ble the independent solution of various problems related to scientific research of these results. |
| To achieve a basic of knowledge of algebra and be able to apply if and apparatus to enal and the publication of Brief outline of the of Relations, operation theorems. Application Subalgebras. Direct | a, expand it and generalize; gain additional knowledge of universal algebra it to specific situations. The aim is to have sufficient mathematical knowledge ble the independent solution of various problems related to scientific research of these results. course: as, algebraic structures. Congruences, homomorphism and isomorphism on to abstract automata and other structures. Automorphism groups and oids of algebraic structures, abstract and concrete representation problem. |
| To achieve a basic of knowledge of algebr and be able to apply if and apparatus to enal and the publication of Brief outline of the of Relations, operation theorems. Application endomorphism mone Subalgebras. Direct algebras. Birkhoff the Recommended litera G. Grätzer: Universa S.Burris, H.P.Sankap online http://orion.ma V.P.Snaith: Groups, H Singapore, 2003. M. Kolibiar a kol.: A | a, expand it and generalize; gain additional knowledge of universal algebra it to specific situations. The aim is to have sufficient mathematical knowledge ble the independent solution of various problems related to scientific research of these results. |
| To achieve a basic of knowledge of algebr and be able to apply if and apparatus to enal and the publication of Brief outline of the of Relations, operation theorems. Application endomorphism mone Subalgebras. Direct algebras. Birkhoff the Recommended litera G. Grätzer: Universa S.Burris, H.P.Sankap online http://orion.ma V.P.Snaith: Groups, H Singapore, 2003. M. Kolibiar a kol.: A | a, expand it and generalize; gain additional knowledge of universal algebra it to specific situations. The aim is to have sufficient mathematical knowledge ble the independent solution of various problems related to scientific research of these results. Exercise: Is, algebraic structures. Congruences, homomorphism and isomorphism on to abstract automata and other structures. Automorphism groups and oids of algebraic structures, abstract and concrete representation problem and subdirest product. Direct and inverse limit of algebras. Terms. Free eorems about varieties. Structures and 1st order logic. Ature: I Algebra, 2nd Edition, Springer Verlag, Berlin - New York, 2008. panavar: A Course in Universal Algebra. Springer-Verlag, 1981; ath.iastate.edu/cliff/BurrisSanka.pdf. Rings and Galois Theory, Word Scientific Publ. Co.,New Jersey-London- lgebra a príbuzné disciplíny, Bratislava, 1992. |

| Course assessment Total number of assessed students: 5 | | |
|--|-------|--|
| N | Р | |
| 0.0 | 100.0 | |
| Provides: prof. RNDr. Danica Studenovská, CSc. | | |
| Date of last modification: 24.11.2021 | | |
| Approved: prof. RNDr. Tomáš Madaras, PhD. | | |