GRADUATE MAJOR CHANGE BULLETIN NO. 4

Fall 2024

Course information under the heading titled *Current* will show strikethroughs for deletions, and text under *Proposed* will show underlines for additions. The column to the far right indicates the date each change becomes effective.

Subject	Course Number	New Revise Drop	Current	Proposed	Effective Date
INTERDIS	**508**	**New**	**--N/A--**	**Special Topics in Interdisciplinary Studies** V 1-3 May be repeated for credit. Course Prerequisite: Course Prerequisite: Admitted to the Interdisciplinary (IIDP or MSIS) program. Recent research developments, issues, applications, and practical training for graduate students in the graduate interdisciplinary programs. Typically offered Fall, Spring, and Summer.	**8-25**
INTERDIS	**700**	**New**	**--N/A--**	**Master's Research, Thesis, and/or Examination** V 1-18 Course Prerequisite: Admitted to the MSIS program. May be repeated for credit. Independent research and advanced study for students working on their master's research, thesis and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 700 credit. S, U grading. Syllabus: https://wsu.instructure.com/courses/1797376/assignments/syllabus	**8-25**
INTERDIS	**702**	**New**	**--N/A--**	**Master's Special Problems, Directed Study and/or Examination** V 1-18 May be repeated for credit. Course Prerequisite: Admitted to the MSIS program. Independent	**8-25**

				research in special problems, directed study, and/or examination credit for students in a non-thesis master's degree program. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 702 credit. S, U grading.	
MATH / CPT S	**529 / 519**	**Revise**	**Computational Topology** 3 Topological techniques combined with algorithms to find structure in data; simplicial complexes from point clouds, algorithms for homology and persistent homology, mapper and topological data analysis, optimal homology problems. Recommended preparation: mathematical maturity at senior undergraduate level and some experience with computer programming. Typically offered Spring.	**Computational Topology** 3 Topological techniques combined with algorithms to find structure in data; simplicial complexes from point clouds, algorithms for homology and persistent homology, mapper and topological data analysis, optimal homology problems. Recommended preparation: mathematical maturity at senior undergraduate level and some experience with computer programming. (Crosslisted course offered as MATH 529, CPT S 519.) Typically offered Spring.	**8-25**
MATH / CPT S	**566 / 556**	**Revise**	**Optimization in Networks** 3 Formulation and solution of network optimization problems including shortest path, maximal flow, minimum cost flow, assignment, covering, postman, and salesman. Credit not granted for both MATH 466 and MATH 566. Required preparation must include linear programming. Offered at 400 and 500 level. Typically offered Even Years - Fall.	**Optimization in Networks** 3 Formulation and solution of network optimization problems including shortest path, maximal flow, minimum cost flow, assignment, covering, postman, and salesman. Credit not granted for both MATH 466 and MATH 566. Required preparation must include linear programming. Offered at 400 and 500 level. (Crosslisted course offered as MATH 466/566, CPT S 456/556.) Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	**8-25**

			Cooperative: Open to UI degree-seeking students.		
MATH / E E	**567**	**Revise**	**Integer and Combinatorial Optimization** 3 Theory and applications of integer and combinatorial optimization including enumerative, cutting plane, basis reduction, relaxation and matching methods. Required preparation must include linear optimization. Typically offered Odd Years - Spring. Cooperative: Open to UI degree-seeking students.	**Integer and Combinatorial Optimization** 3 Theory and applications of integer and combinatorial optimization including enumerative, cutting plane, basis reduction, relaxation and matching methods. Required preparation must include linear optimization. (Course offered as MATH 567, E E 567.) Typically offered Odd Years - Spring. Cooperative: Open to UI degree-seeking students.	**8-25**
MGTOP	**585**	**New**	**--N/A--**	**Supply Chain Risk Management** 3 Conceptual and analytical approaches for dealing with modern supply chain risks such as natural catastrophes, terrorism, exchange rate risk, political risk, logistics delays, outsourcing, and supplier quality/delivery failures. Typically offered Spring. Syllabus: https://wsu.instructure.com/courses/1794790/assignments/syllabus	**1-26**
SOE	**526**	**Revise**	**Ecology of the Columbia River** 3 Interdisciplinary approach to the interconnections between the physical, geological, chemical, biological, and social dimensions of this large, iconic aquatic ecosystem. Recommended preparation: BIOLOGY 372.	**Ecology of the Columbia** River 3 Interdisciplinary approach to the interconnections between the physical, geological, chemical, biological, and social dimensions of this large, iconic aquatic ecosystem. Recommended preparation: BIOLOGY 372. Credit not granted for both SOE 426 and SOE 526. Offered at 400 and 500 level. Syllabus: https://wsu.instructure.com/courses/1773098/assignments/syllabus	**8-25**

VIT ENOL	**526**	**New**	**--N/A--**	**Sensometrics** 3 Course Prerequisite: STAT 511; STAT 512; VIT ENOL 422. Statistical and computational methods to advance the sensory and chemical evaluation of consumer products, specifically wines and spirits, including experimental design and methods, and data generation, analysis, and modeling. Typically offered Spring. Syllabus: https://wsu.instructure.com/courses/1795033?for_reload=1	**1-26**
VIT ENOL	**539**	**New**	**--N/A--**	**Wine Chemistry Laboratory** 1 (0-3) Course Prerequisite: VIT ENOL 538 or concurrent enrollment. Assay wine and juice for its chemical constituents; laboratory safety in a wine chemistry setting. Credit not granted for both VIT ENOL 439 and 539. Offered at 400 and 500 level. Typically offered Fall. Syllabus: https://wsu.instructure.com/courses/1788699?for_reload=1	**8-25**
VIT ENOL	**582**	**New**	**--N/A--**	**Micro and Molecular Biology of Wine** 3 Molecular and microbiological aspects of yeast, filamentous fungi, and lactic acid bacteria fermentation of grape juice or must to produce still, sparkling, and aged wine; production and preservation of microbial starter cultures and the application of hazard analysis and critical control point systems; assessment of normal, stuck, and sluggish fermentations. Credit not granted for both VIT ENOL 482 and 582. Offered at the 400 and 500 level. Typically offered Spring. Syllabus:	**8-25**

				https://wsu.instructure.com/courses/1790496/assignments/syllabus	
VIT ENOL	**583**	**New**	**--N/A--**	**Micro and Molecular Biology of Wine Laboratory** 1 (0-3) Course Prerequisite: Concurrent enrollment in VIT ENOL 582. Identification of microorganisms (non-spoilage and spoilage) using microscopic, molecular, and selective media methods; evaluation of factors related to the survival of yeast and bacteria in wine; strategies for restarting stuck yeast and malolactic fermentations. Credit not granted for both VIT ENOL 483 and 583. Offered at the 400 and 500 level. Typically offered Spring. Syllabus: https://wsu.instructure.com/courses/1790505?for_reload=1	**8-25**