CCV STEM Studies A.S. to UVM Mathematical Sciences (Mathematics Major) B.S. Pathway College of Engineering and Mathematical Sciences (CEMS) Catalogue Year: 2024-2025 **CCV DEGREE PROGRAM: STEM Studies UVM DEGREE PROGRAM: Mathematics (CEMS)** Gen Ed: First Semester Seminar INT 1050 - Dimensions of Self & Society HUMN 1XXX - D1 Gen Ed: Introductory Written Expression ENG 1061 - English Composition ENGL 1001 - Written Expression, WIL1 Gen Ed: Digital and Computer Literacy Select from approved list of CCV Course Offerings Elective (please refer to the UVM Transfer Guide) Gen Ed: Mathematics: Choose: MAT 1531 - Calculus I MATH 1234 - Calculus 1, MA, Major MAT 1330 - Pre-Calculus (if needed) to best prepare for MAT 1531 and can apply towards STEM electives – see below Gen Ed: Natural Science Choose: CHE 1031 - General Chemistry I CHEM 1400 - General Chemistry 1, N2, QD, CEMS Ancillary Gen Ed: Social Science Choose from: ECO 2020, ECO 2030, or PSY 1010 S1 Gen Ed: Arts and Aesthetics Choose from one of the following: ARH 2011, ARH 2012, ARH 2020, ARH 2050, ART 1011, ART 1020, AH, plus DAN 2210 fulfills D2 requirement and HUM 2200 ART 1050, ART 1070, ART 1160, ART 1170, DAN 2210, ENG 2120, fulfills D1 requirement (please refer to the UVM Transfer ENG 2150, FLM 1050, FLM 2060, HUM 2200 Guide) Gen Ed: Humanistic Perspectives Choose: ANT 1010 - Introduction to Cultural Anthropology ANTH 1100 - Cultural Anthropology, D2, S1, SU Gen Ed: Communication Choose from: COM 1020 - Interpersonal & Small Group Communication SPCH 1XXX - OC COM 1030 - Intercultural Communication SOC 1XXX - GC2, S1 Gen Ed: Research & Writing Intensive ENG 2135 - Technical Writing & Research **ENGL 1XXX - WIL1** Gen Fd: HUM 2010 - Seminar in Educational Inquiry **HUMN 1XXX - WIL1, AH3 Program Requirements:** INT 1017 - Creative and Critical Thinking IDSS 1XXX - Elective INT 2860 - Professional Field Experience **EDEC XXXX - Elective** STEM Electives: Choose a minimum of 22 college-level credits in: AHS, ARC, BIO, CHE, CIS (above CIS-1020), ENV, MAT, MEC, or PHY Complete these courses at CCV prior to enrolling at UVM: MAT 1330 - Pre-Calculus (if needed) to best prepare for MAT 1531 Elective MAT 2532 - Calculus II MATH 1248 - Calculus II, MA, Major CHE 1032 - General Chemistry II CHEM 1450 - General Chemistry 2, N2, QD, CEMS Ancillary Additional STEM Electives: consult with advisor about applicability Please refer to the UVM Transfer Guide of these electives towards your minor requirements at UVM. **Total Credits at CCV: 60**

Core/Major: *CEMS 1500, CS 1210, MATH 2055, **MATH 2248, **MATH 2522 (or MATH 2544), MATH 3468, MATH 3551, MATH 4344 (or MATH 4788 or MATH 4996); STAT 1410 or STAT 2430; plus 18 additional credits in MATH numbered 2000-level or higher, including 9 credits at the 3000-level or higher, excluding MATH 2111, MATH 2180, and MATH 3201.

<u>CCC:</u> (1) WIL2/OC or GC (depends on what is completed at CCV); Need 40 unique CCC credits.

<u>Minor:</u> ***Must complete a minor in a field other than Mathematics. Completion of a second major or second degree other than Mathematics will satisfy the minor requirement.

<u>Elective credits</u> as needed to reach total credits for graduation.

Total credits required to earn Bachelor's degree is minimum 120.

Order of UVM courses will be dependent on course offerings each year.

*Please note: CEMS 1500 – Please consult with your CEMS advisor for an approved substitution.

**Due to the rigor of the MATH curriculum, students can utilize summer course offerings of MATH 2248 and MATH 2522, prior to matriculation at UVM, to provide for a more balanced workload.

***Please review the <u>UVM cataloque</u> for a list of available minors. Minor options can slightly vary in number of credits. The average number of credits is 18. Any adjustment will affect the number of elective credits needed to earn a UVM degree. Due to course sequencing and pre-requisite completion, not all minors can be completed in four semesters. Please connect with your advisor to discuss your career goals and degree completion timeline.

CATAMOUNT CORE: UVM'S GENERAL EDUCATION CURRICULUM

