Mathematics for Future Early Childhood Ed, Elementary, and Middle School Teachers

Reasons for taking MAT*143, *Math for Elementary Education: Algebra, Number Systems* and MAT*144, *Math for Elementary Education: Geometry, Data* at Naugatuck Valley Community College

1) **Course content is relevant to the mathematics taught and methods used in grades Pre-K – 6**
   - Methods model those used in early childhood / elementary school classrooms through use of manipulatives (e.g., Cuisenaire rods, base 10 blocks, fraction bars, color counters, etc.) to promote understanding
   - Conceptual understanding, necessary for the teacher to be able to respond to student questions / answers, is emphasized, not simply rote memorization of content
   - Content / methods provide an excellent reexamination of elementary school mathematics for the prospective middle school teacher

2) **Materials reflect the Standards**
   - Course material is in line with CCSSM (Common Core Standards for Mathematics) and NCTM (National Council of Teachers of Mathematics) recommendations
     - *Common Core State Standards for Mathematics*, and NCTM recommendations, emphasize critical thinking and problem solving, fewer concepts but in more depth and with greater rigor, not rote memorization; course material is in line with the Standards, which expect more academically and intellectually of students, thus of their teachers
     - Course methodology incorporates *Common Core State Standards for Mathematical Practice*

3) **Courses provide excellent preparation for Praxis Core tests, required for acceptance into education programs**
   - The CT State Board of Education has adopted new Praxis tests (Praxis Core) for all applicants for certification in elementary and early childhood education, thus Connecticut colleges and universities now use Praxis Core to evaluate individuals for entry into teacher education programs

4) **Courses transfer to the Connecticut State Universities as well as to many private colleges/universities**
   - For example, MAT*143 transfers as follows: ECSU MAT 139, CCSU MATH 113, SCSU MAT 105, WCSU MAT 105 (this course is 4 credits, so students make up the credit with lab experiences)
   - For example, MAT*144 transfers as follows: ECSU MAT 140, CCSU MATH 213, WCU MAT 106 (students make up the 4th credit with lab experiences); MAT*144 together with MAT*143 transfer as SCSU 105 & 106

5) **Taking MAT*143/144 at Naugatuck Valley is considerably less expensive than taking the equivalent courses at a 4-year institution**
   - Students save substantial time and money by taking courses that satisfy the degree requirement at both NVCC and their chosen 4-year institution