

## HUMBOLDT STATE UNIVERSITY

Your Secondary Education (SED) application will be assessed by a committee of professors in your chosen subject area. They will conduct subject matter competency assessment (SMCA), which may include an interview, presentation, and/or writing sample (depending upon your specific subject area). The SMCA committee will rank and select applicants for a SED departmental interview. **Only those applicants who pass subject matter competency assessment will be considered for admission.** The SED coordinator will notify applicants of the SMCA results and schedule SED program interviews.

Department: MATHEMATICS  
Subject Matter Competency Assessment

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### Criteria

The candidate must provide evidence of knowledge and understanding of calculus, discrete mathematics, number theory, linear algebra, abstract algebra, classical/modern geometry, and probability and statistics. In addition, the candidate must provide evidence of knowledge in the history of mathematics, computer programming, and in the study of school mathematics from an advanced perspective. The mathematics department screening committee may permit the student to acquire knowledge in these additional areas during the first semester of the fifth-year program.

Finally, the candidate must clearly demonstrate the ability to communicate with others, particularly within the discipline of mathematics, both orally and in writing.

### I. Assessment of Mathematics Preparation

#### OPTION A: CCTC-Approved Subject Matter Program

Those candidates who have completed or are expected to complete a CTC-approved Subject Matter Program in Mathematics (Mathematics Education), with overall grade point average at or above the minimum set by the State (2.7), have sufficient evidence to satisfy the conditions set forth in the first paragraph under “criteria”. Those candidates with an undergraduate major in mathematics or its equivalent will have their transcripts reviewed by the mathematics department screening committee to determine the course of action required by the candidate to earn the equivalent of the Humboldt State University CCTC-approved Subject Matter Program in Mathematics. The course of action that is prescribed may include written or oral examinations, coursework, or portfolio submissions. See the attached subject matter check sheet used by the mathematics department screening committee.

#### OPTION B: CCTC-Approved EXAM

The CSET exam is required for those who do not have an undergraduate mathematics major or its equivalent or whose overall grade point average is below 2.67. Students must pass CSET exams: Subtest I: Algebra, Number Theory; Subtest II: Geometry, Probability and Statistics; Subtest III: Calculus, History of Mathematics ([www.cset.nesinc.com](http://www.cset.nesinc.com)). In addition to passing the CSET, candidates must document knowledge in the additional areas listed in the first paragraph under “criteria.” See the description of the assessment of written communication below. See the attached subject matter check sheet used by the mathematics department screening committee.

**All required exams must be passed before beginning the SED program in August.**

#### *Assessment of Written Communication*

The candidate’s organized academic record and letters of recommendation from faculty will serve as the main source of information upon which offers for oral interviews will be based.

Each candidate will submit a writing sample (at least 2, but not to exceed 10 word-processed pages) from a mathematics course or on a topic related to mathematics education at the secondary level. Items may include, but are not limited to, term papers or projects, problem-solving records or reports, or an original detailed lesson plan for teaching a particular secondary topic.

## II. Assessment of Oral Communication Skills

After satisfying the written assessment, candidates may be invited for an interview with the Mathematics Department Screening Committee. In addition to one or more mathematics department faculty, the interviewing committee may include middle school and high school mathematics teachers from the community. **Interviews will be conducted the week of February 26, 2007.**

The Mathematics Department Screening Committee will use the *California Mathematics Framework* (1999) published by the California Department of Education as a basis from which to form general interview questions. Candidates must read and review this document prior to the interview. Additional questions focus on the candidate's experiences with middle school or high school students in a mathematical setting and on the candidate's outlook on preparation for the teaching profession.

### Evidence of Sufficient Subject Matter Preparation Mathematics Department Screening Committee

	<u>Transcript</u>	<u>Challenge Exam</u>	<u>Portfolio</u>	<u>Math 407</u>	<u>Interview</u>	<u>Letters/ Writing</u>
Elementary Calculus	[ ]	[ ] (CSET)				
Discrete Mathematics	[ ]	[ ] (CSET)	[ ]	[ ]		
Linear Algebra	[ ]	[ ] (CSET)		[ ]		
Abstract Algebra	[ ]	[ ] (CSET)		[ ]		
Geometry	[ ]	[ ] (CSET)		[ ]		
Probability/Statistics	[ ]	[ ] (CSET)	[ ]	[ ]		
Number Theory	[ ]	[ ] (CSET)	[ ]	[ ]		
History of Mathematics	[ ]	[ ] (CSET)	[ ]	[ ]		
Programming	[ ]		[ ]			
School Mathematics/Advanced	[ ]	[ ]	[ ]	[ ]	[ ]	
Written Communication			[ ]			[ ]
Oral Communication					[ ]	[ ]
Potential Success for teaching			[ ]		[ ]	[ ]