“You are able to take excellent classes, build relationships with your peers and instructors, and have the experience of a lifetime.”

— NCSSM Online student

http://online.ncssm.edu
About NCSSM
The North Carolina School of Science and Mathematics (NCSSM) is a public, residential, coeducational high school of juniors and seniors with high intellectual ability and commitment to scholarship.

NCSSM opened its doors in September 1980 and for nearly three decades has taught more than 7,000 of North Carolina’s most talented and highly motivated students through its residential program located on its twenty-seven acre campus in Durham, North Carolina. In August 1992, NCSSM began its distance education program with interactive video conferencing (IVC). It provides courses, enrichments, and professional development to students and teachers throughout North Carolina. NCSSM has a diverse student body from across North Carolina in both its distance education programs and in residence.

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In July 2007, NCSSM became the 17th constituent institution of the University of North Carolina System. NCSSM is accredited by AdvancED – SACS-CASI Council on Accreditation and School Improvement and is a founding partner of the 210-member National Consortium for Specialized Secondary Schools of Mathematics, Science, and Technology.

NCSSM Online
In August 2008, NCSSM launched its virtual learning program, NCSSM Online, designed to expand the reach of the school even further beyond its residential walls. Through NCSSM Online more of North Carolina’s high achieving students are able to participate in NCSSM’s challenging opportunities through a “blended” program of online instruction and campus visits. NCSSM Online courses are offered in addition to or as part of students’ academic course schedule at their home high schools.

The mission of NCSSM Online is to provide a virtual community in which students will learn to think independently, learn collaboratively, lead intelligently and ethically, and experience the joy of inquiry and discovery through a coherent, cohesive, and integrative academic program. Students are expected to develop their independent investigative skills, solve novel problems, and appreciate the learning advantages of a diverse online community. NCSSM Online builds on the spirit and long residential tradition of academic rigor, and critical and creative thinking.

Student Qualifications and Selection
Students interested in applying for NCSSM Online must be in their sophomore year of high school and their parent/legal guardian must maintain legal residency in North Carolina. Students are selected through a competitive process that considers each applicant’s interests in science and mathematics, and includes a review of standardized test scores, past academic performance, special talents, accomplishments, and extracurricular interests. Students’ essays and their current school’s assessment of student characteristics also help present a complete picture of
each candidate. Students applying to NCSSM compete for enrollment with other students within their congressional district rather than competing with every applicant from across the state.

All applications are reviewed by the NCSSM Admissions Selection Committee. Each student’s accomplishments are examined for evidence for potential success in a rigorous academic program. Applications being considered for NCSSM Online are further reviewed to ensure the student’s potential to succeed in a “blended” program of online learning and weekend campus instruction.

Junior-level NCSSM Online students are expected to complete one semester or year-long course to be eligible for the senior year of the program. Seniors may enroll in multiple concurrent courses, and must arrange for time during the school day to work on at least one of those courses. To enroll for courses during the senior year, the student must have met academic eligibility requirements by earning a “C-” or above in all NCSSM Online courses taken during the junior year.

**NCSSM Online Instructional Program**

NCSSM Online is a “blended” program of asynchronous online instruction, synchronous web-conferencing interactions, and campus instruction and networking.

Exceptional student achievement is a primary academic expectation for NCSSM Online students. Standards for the teachers and the courses have been designed to foster rigorous and effective instruction. All faculty in NCSSM Online have: a masters degree (preferably in the subject area); five years of teaching experience working with advanced and ethnically diverse students; advanced training in the use of educational technology; and a commitment to curriculum design and outreach to improve statewide teaching and learning. All NCSSM Online courses adhere to national standards for online course development and teaching.

**Online Instruction**

Courses in the online environment foster student interaction with their teacher(s) and classmates from across North Carolina via web videoconferencing, online chats, and other innovative communication tools. Student objectives of the program emphasize skills such as proficiency in the innovative use of technology using computers and laboratory facilities; communication skills in a variety of written, aural and visual formats; conceptual understanding of materials and issues in critical thinking beyond facts, to analysis, synthesis, and conclusions drawn from ideas from a variety of perspectives; and skill development in working collaboratively and gaining experience in completing tasks to achieve a common goal. All exams for NCSSM Online courses are proctored by a pre-approved individual.

**Residential Instruction**

Residential Weekends

A unique and vital element of the NCSSM Online Program is its residential weekend experience which seeks to enhance the collaborative learning experience and foster the NCSSM sense of community that makes it a unique experience.

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**Program Enrollment**

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>78</td>
</tr>
<tr>
<td>2009-2010</td>
<td>132</td>
</tr>
<tr>
<td>2010-2011</td>
<td>160</td>
</tr>
</tbody>
</table>

**Final Grades**

<table>
<thead>
<tr>
<th>Grade Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - Outstanding</td>
<td>56%</td>
</tr>
<tr>
<td>B - Superior, meets all course requirements</td>
<td>30%</td>
</tr>
<tr>
<td>C - Acceptable, minimally meets course requirements</td>
<td>9%</td>
</tr>
<tr>
<td>D - Unsatisfactory, no NCSSM credit</td>
<td>4%</td>
</tr>
<tr>
<td>WP - Withdrawal/passing (no credit)</td>
<td>1%</td>
</tr>
</tbody>
</table>

- 2009-2010 academic year.

**Scholastic Aptitude Test**

**Sophomore Year Applicant Performance**

<table>
<thead>
<tr>
<th></th>
<th>Verbal</th>
<th>Math</th>
<th>Writing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean:</td>
<td>600</td>
<td>645</td>
<td>579</td>
<td>1824</td>
</tr>
<tr>
<td>Median:</td>
<td>600</td>
<td>650</td>
<td>580</td>
<td>1830</td>
</tr>
</tbody>
</table>

- Sophomore SAT statistics were compiled using scores reported for the Class of 2010 and 2011 at the time of application to NCSSM.

**Advanced Placement Exams**

28 students took AP exams related to their course in 2009 - 2010

<table>
<thead>
<tr>
<th>Score</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of scores</td>
<td>46%</td>
<td>29%</td>
<td>18%</td>
<td>7%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**College Choices: Class of 2010**

- Duke University (3)
- East Carolina University
- Georgia Perimeter College
- Johns Hopkins University
- Macalester College
- North Carolina State University (11)
- Penn State University
- Rose Hulman Institute of Technology (2)
- University of North Carolina Asheville (2)
- University of North Carolina-Chapel Hill (19)
- University of North Carolina-Charlotte
- University of North Carolina-Greensboro
- University of Chicago (2)
- University of Pittsburgh
institution. First-year students attend a summer residential orientation session held in early August, where they are introduced to their instructor(s) and fellow students, and receive orientation to the technology and software that is used throughout their online experience. Students are also expected to attend (generally) two overnight weekends on the NCSSM campus per semester.

Residential weekends foster students becoming a contributing member to a learning community. While on the NCSSM campus, students work on problem solving activities, conduct hands-on science activities in the NCSSM laboratories, and participate in extracurricular investigations of current topics via lectures, hands-on learning, and field trips. Students are enriched by these interactions with their peers, while gaining the valuable experience of working in groups on challenging projects.

An important aspect of the campus visits is the students' participation in Wellness programming with NCSSM Residential Life Staff members who supervise the students in this setting. Group activities, team building, social events, and cultural opportunities help develop the critical “interpersonal skills” necessary for success in the 21st century.

**Summer Student Symposium**
NCSSM Online offers a weeklong summer residential program for its rising seniors. Modeled after the NCSSM academic program’s opportunities for extra-curricular studies, such as its mini-term and independent study options, the summer student symposium brings students together for a “think tank” approach to studying a current social issue of a STEM (science, technology, engineering, math) nature and in a collaborative, investigative approach, research the issue and develop ideas about possible solutions to one aspect of the problem. The 2010 Summer Student Symposium had a focus on “The Future of Food: From Scarcity to Sustainability”. Participation in this program is reflected on the NCSSM Online student transcript as an optional non-credit program of study.

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![Cover photo](image)

The cover photo was taken at the first NCSSM Online Recognition Ceremony in June 2010, with the NCSSM Online Class of 2010 standing in front of the historic Watts Hospital entrance of the NCSSM campus. Students wore the academic regalia of their local high school, and received a certificate of completion and the Online Program Chancellor’s Medallion at the ceremony.