

# School Profile 2011-2012

# Highland School of Technology

## Contact Information

1600 N. Morris St.  
Gastonia, NC 28052  
(704) 810-8816  
(704) 866-6105

CEEB School Code: 341-450  
Accreditation: SACS

Hours: 8:40 am – 3:30 pm  
Calendar: Traditional  
Enrollment: 563  
Seniors: 135  
Juniors: 138  
Sophomores: 146  
Freshmen: 144

**Principal:** Lee Dedmon    **Assistant Principal:** Tanisha Abernathy    **Counselors:** Mathieu Chapman and Ami Parker  
(School) <http://highlandtech.us> (Counseling) [www.tinyurl.com/hstcounseling](http://www.tinyurl.com/hstcounseling)

## Our Philosophy

The mission of Highland School of Technology is to prepare students for success in post-secondary education and the workplace by offering a rigorous, relevant, and experiential academic and technical curriculum.

## School Description

Highland School of Technology is located in a working-class neighborhood in Gastonia, North Carolina. The school opened in July of 2000 as the district's first total choice magnet program, and it draws its student body from the other eight high schools in the county. Dr. Ray Medford chaired the committee that researched vocational and technical programs across the nation. They developed a plan for a full-day comprehensive high school program with emphasis on three career and technical academies: Communications and Information Technology, Health Sciences and Biomedical Technology, and Manufacturing/Engineering and Graphics. Highland opened for the 2000-01 school year with freshmen and sophomore students and had its first graduating class in 2003.

## Entrance Criteria

Students apply to attend Highland during their eighth grade year. A lottery is held to select 146 students based on interest in a career pathway and feeder high school area. A percentage of students are accepted from each of the high school feeder areas in Gaston County, according to enrollment, which fairly distributes the Highland experience to all areas of our community.

The entrance criteria are:

- Level III or IV on the 7<sup>th</sup> grade end-of-grade tests in reading and math
- Level III or IV on the 8<sup>th</sup> grade end-of-grade tests in reading and math
- 94% attendance rate in grades 7 and 8
- Overall "C" or 77 minimum average in grades 7 and 8
- Be in good standing regarding conduct
- Be a Gaston County resident

## Integrated Learning

The emphasis at Highland School of Technology is on integrating learning within the community. The faculty is active in planning integration of the curriculum so that students see relationships and therefore a purpose for learning and understand the curriculum's application in a real-world setting. Teachers observe lessons in classrooms of other disciplines, experience industry field trips, share curriculum plans during bi-weekly integration meetings, and communicate with each other as they develop interdisciplinary units of study. Our community provides a means for students to apply their learning in real-world situations through internship, job shadowing, and apprenticeship opportunities.

## School Honors and Recognitions

- ❑ NC School of Distinction 2000-01 – 84.1%
- ❑ NC School of Excellence 2001-02 – 90.6%
- ❑ NC School of Distinction 2002-03 – 88.5%
- ❑ NC School of Distinction 2003-04 – 89.1%
- ❑ NC Honor School of Excellence 2004-05 – 92.1%
- ❑ EOC Proficiency Rate 2005-06 – 91.1%

HST has had the highest cohort graduation rate for any public high school in North Carolina for the last six years.

## School Honors and Recognitions – Cont.

- ❑ NC School of Distinction 2006-07 – 86.1%
- ❑ NC Honor School of Excellence, High Growth 2007-08 – 91%
- ❑ NC Honor School of Excellence, High Growth 2008-09 – 94.922%
- ❑ NC Honor School of Excellence, High Growth 2009-10 – 98.79%
- ❑ NC Honor School of Excellence, High Growth 2010-11 – 99.3% – Highest test scores of any public high school in NC.
- ❑ Governor’s Entrepreneurial Award 2001 – *In 1993, Governor James B. Hunt, Jr. began the Entrepreneurial Schools Awards to recognize the importance of risk-taking and leadership in making change and delivering results in public education. Highland was recognized for bold leadership and responsible risk-taking to advance teaching and improve learning in the State of NC.*
- ❑ Teacher Working Conditions Initiative 2002 - *The Governor Mike Easley commissioned a research team—in collaboration with BellSouth, North Carolina Professional Teaching Standards Commission (NCPTSC), and the Southeast Center for Teaching Quality—to conduct site visits and provide case studies for a group of schools that scored well on the TWC survey. The Highland School of Technology was the high school with the highest score and was included in the report.*
- ❑ Identified as one of the Top 30 Model Schools in the Nation for Bringing Best Practices to Scale by the Bill and Melinda Gates Foundation, Council of Chief State School Officers, and International Center for Leadership in Education. 2003 - *Criteria for selection as a model high school include a learning environment that promotes high achievement, use of data to make instructional decisions, a rigorous and relevant curriculum, professional development for instructional staff members, parental involvement, community support, and increased student learning time. Michael Ward, North Carolina’s Superintendent Of Public Instruction identified Highland School of Technology for inclusion in the project for its innovative thinking and best practices.*
- ❑ The Highland School of Technology was featured in the December 9, 2003, issue of Forbes magazine. *The article mentioned Highland when discussing the business of educational innovation in the Charlotte region.*
- ❑ The Highland School of Technology was featured in the July 2003 issue of Greater Charlotte Biz, the magazine for the successful business executive. *The article featured the accomplishments of our school and highlighted the skills of our first graduating class.*
- ❑ The Highland School of Technology was featured in the June 2004 issue of the Engineering Times by the National Society of Professional Engineers. *The article highlights our Manufacturing/Engineering Academy and includes interviews from two of our students who plan to pursue a degree in engineering.*
- ❑ The Highland School of Technology is participating in a National Science Foundation Grant administered through the University of North Carolina at Charlotte and Gaston College. *The grant encourages student participants in JETS (Junior Engineering Technology Society) and Engineering Technology related competitions.*
- ❑ Selected as one of 23 model high schools nationwide to share its best practices at the 15th Annual Model Schools Conference in Washington, D.C., on June 30-July 3, 2007. *The Conference, sponsored by the International Center for Leadership in Education, is the nation’s premier event for K-12 education reform.*
- ❑ The Highland School of Technology was recognized by the State School Board and the Department of Public Instruction for our 100% graduation rate for the class of 2008.
- ❑ The Highland School of Technology received silver medal status from the U.S. News & World Report's "America's Best High Schools." 2008 - *Schools are measured based on a three-step process that looked at reading and math test results and how many students took Advanced Placement and International Baccalaureate courses and tests and how well they performed.*

## Career Pathways

There are eight career and technical pathways at Highland School of Technology. All students begin their career and technical education during their freshman year with courses in Digital Communication Systems and Computer Applications I. They continue to have specialized instruction during their sophomore and junior years. Their advanced studies class requires a senior project to demonstrate their skills and knowledge by working with professionals in their chosen career fields.

### Communications and Information Technology: Academy Coordinator – Rachel Martin

**Computer Engineering Technology** - The Computer Engineering Technology pathway emphasizes the skills needed to build, upgrade, configure, and troubleshoot computers, peripherals, and operating systems. Areas of study include printers, portable systems, networks, Internet, and customer interaction. The program focuses on routing and switching, as well as WAN switching solutions across the disciplines of network and network support. Curriculum content follows industry guidelines to prepare students to seek A+ Certification, Cisco Certified Network Associate (CCNA) Certification, and Network+ Certification.

**Finance** - The Finance pathway introduces students to the broad career opportunities in the financial service industry and, in the process, equips them to make sound choices for their future. It provides students with industry-related courses of study, while enabling and encouraging them to participate in internships at financial services corporations, obtain employment after graduation, and pursue higher education. Students in the Finance pathway will receive college credit for Introduction to Business and Principles of Management.

**Network Administration** - The Network Administration pathway provides a curriculum based on industry-validated skill standards that educate students in the day-to-day administration of an installed network. Topics include fundamentals of microcomputer systems, file and directory management, microcomputer components, assessing network information and resources, connecting to the network, accessing data files and applications, and printing to a network printer. Students completing this program will be prepared to become a Microsoft Certified Professional (MCP) in Windows XP and Server 2003, and Network+ Certified.

## **Health Science and Biomedical Technology:** Academy Coordinator – Justin Beam

**Allied Health Science** - Students who choose the Allied Health Science pathway will be introduced to the many jobs available in support positions in hospitals, clinics, and other medical facilities. These students will focus on becoming multi-skilled health team members, and they will spend time rotating throughout the different areas of a hospital during their senior year. They will actually be performing entry-level clinical skills. These students will be given the opportunity to acquire Nurse Aide Level I (CNA) certification upon completion of this pathway.

**Medical Science** - The Medical Science pathway will prepare students to be health care workers in an advanced technical or professional health career. Emphasis in the classroom is placed on research, communication, computer literacy, health team relations, problem solving, and decision making. Students in this pathway will spend 45+ hours in a mentorship with a health care professional during their senior year.

**Dental Science** - In the Dental Science pathway, students will prepare for careers in the dental field. Students will perform entry level skills through on and/or off campus experiences. Highland has the only Dental Science program in a North Carolina public high school.

## **Manufacturing and Engineering and Graphics:** Academy Coordinator – Russell Wingfield

**Graphic Communications** - Graphic Communications pathway offers students an overview of the graphics industry. Emphasis is placed on copy preparation, digital file preparation, principles of design, web graphics, web page layout, and web site design. Students will have the opportunity to become proficient in several Adobe packages, including Illustrator, Photoshop, Go-Live, and In-Design. During their senior year, they utilize Mac iMovie and produce the school's daily news program through their Video Production class. Video Production skills include storyboard creation, video camera techniques, lighting techniques, video graphics, and editing techniques.

**Manufacturing and Engineering** - All students in Manufacturing and Engineering pathway take a series of classes in a special laboratory setting. Emphasis is placed on learning basic design skills, engineering principles, programming logic, manufacturing processes, and quality-control concepts through hands-on activities. Communication, teamwork and problem-solving are reinforced throughout all the classes. Students also take a Drafting/CAD class to further develop technical skills. Apprenticeship opportunities are available for those qualifying students during their senior year through the industry sponsored Apprenticeship 2000 program.

### **Graduation Requirements / Class Rank**

Highland School of Technology provides a class rank for students on the NC standardized transcript. Students have the opportunity to take rigorous academic classes including advanced placement; however, they are required to take a fourth math and demanding career and technical education courses associated with their career pathway. The pathways have different class requirements; thus some students may not have as many elective choices to take advanced placement, foreign language, or fine arts courses. Although not given honors credit, these students learn material in their career and technical education courses that is comparable to college coursework. A class rank comparison within career pathway is available for college and scholarship competitions upon request.

### **Grading Scale**

|   |          |     |            |
|---|----------|-----|------------|
| A | 93 – 100 | D   | 70 – 76    |
| B | 85 – 92  | F   | Below 70   |
| C | 77 – 84  | INC | Incomplete |

### **Advanced Placement**

The following advanced placement courses are taught at Highland School of Technology:

Biology, Calculus AB, Calculus BC, Chemistry, English Language and Composition, English Literature and Composition, European History, US Government and Politics, Statistics, and United States History.

### **Athletics**

Students compete at the varsity level in the Southern Piedmont 1A – 2A Division. The following sports teams are active at Highland: baseball, basketball, cheerleading, cross country, football, golf, soccer, softball, swimming, tennis, track, volleyball, and wrestling.

### **Extracurricular Activities and Clubs**

Beta Club

Fellowship of Christian Athletes (FCA) [new 2012]

Future Business Leaders of America (FBLA)

Gaming Club

Health Occupations Students of America (HOSA)

Interact Club

International Cultures Club [new 2012]

Moot Court

National Technical Honor Society

Ram Club - Based on grades, behavior, attendance, and service

Students Against Violence Everywhere (SAVE)

Student Council

Students of Service (Bible Club)

Technology Student Association (TSA)

Tree Huggers Recycling Club

World Quest / Quiz Bowl

| Advanced Placement (AP) Percent Scoring 3 or Higher |         |         |         |         |
|---|---------|---------|---------|---------|
|   | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
| Biology   | N/A     | N/A     | 91%     | N/A     |
| Calculus AB   | 50%     | 100%    | 100%    | N/A     |
| Calculus BC   | 67%     | N/A     | 80%     | 58%     |
| Chemistry   | 100%    | 25%     | N/A     | N/A     |
| English Language                                    | 88%     | 81%     | 90%     | 89%     |
| English Literature                                  | 100%    | 83%     | 92%     | 100%    |
| European History                                    | 100%    | 67%     | 92%     | 90%     |
| Statistics  | 60%     | 86%     | 100%    | 80%     |
| US Govt & Politics                                  | 67%     | 100%    | 100%    | 82%     |
| US History  | 90%     | 95%     | 100%    | 100%    |

| SAT – Mean Test Score | Critical Reading | Math       | Writing    | Total CR+M  | Percent Tested |
|-----------------------|------------------|------------|------------|-------------|----------------|
| HST 2007–2008         | 492              | 518        | 474        | 1010        | 86%            |
| HST 2008–2009         | 490              | 513        | 471        | 1003        | 75%            |
| HST 2009–2010         | 520              | 522        | 491        | 1042        | 85%            |
| <b>HST 2010-2011</b>  | <b>526</b>       | <b>536</b> | <b>484</b> | <b>1062</b> | <b>95%</b>     |
| Gaston County         | 480              | 495        | 455        | 975         | 58.7%          |
| North Carolina        | 493              | 508        | 478        | 1001        |                |
| National              | 497              | 514        | 489        | 1011        |                |

**Scholarships and Awards**

The Class of 2011 received over 4.3 million dollars in scholarship money last year. Scholarships received by past graduates include Morehead-Cain Awards, Robertson Scholars, National Merit Scholarships, NC Teaching Fellows, Air Force Academy appointment, and Alumni, Chancellor's, Dean's, and Presidential scholarships to many colleges and universities.

| Post Graduate Plans                                     | 2008 | 2009 | 2010 | 2011 |
|---|------|------|------|------|
| Class Size  | 132  | 130  | 140  | 132  |
| Total Continuing Education                              | 98%  | 93%  | 98%  | 92%  |
| Four Year College                                       | 64%  | 60%  | 73%  | 76%  |
| Community College,<br>Junior College,<br>Nursing School | 34%  | 33%  | 25%  | 16%  |
| Trade/Business School                                   | 0%   | 0%   | 0%   | 4%   |
| Military  | 2%   | 5%   | 1%   | 2%   |
| Employment  | 0%   | 2%   | 1%   | 2%   |

### Colleges and Universities Accepting Highland School of Technology Graduates

|                                   |                                 |                              |                             |                                   |
|-----------------------------------|---------------------------------|------------------------------|-----------------------------|-----------------------------------|
| Air Force Academy                 | Drexel University               | Kettering University         | North Greenville University | UNC Asheville*                    |
| Anderson College                  | Duke University                 | King College                 | Ohio State University       | UNC Chapel Hill*                  |
| Appalachian State University*     | East Carolina University*       | King's College               | Oglethorpe University       | UNC Charlotte*                    |
| Art Institute                     | East Tennessee State University | Lee University*              | Ontario College Services    | UNC Greensboro*                   |
| Auburn University*                | Elon University                 | Lees-McRae College           | Peace College*              | UNC Pembroke*                     |
| Belmont Abbey College*            | Embry Riddle Aeronautical       | Lenoir-Rhyne University*     | Penn State University       | UNC Wilmington*                   |
| Bennett College                   | Emory and Henry College         | Liberty University*          | Pfeiffer College*           | University of Alabama Huntsville* |
| Bluefield College                 | Emory University                | Limestone College            | Presbyterian College        | University of Florida             |
| Boston University                 | Erskine College                 | Livingston College           | Presbyterian Nursing        | University of Nevada Las Vegas    |
| Boston College University         | Fayetteville State University   | Lynchburg College            | Purdue University           | University of South Carolina      |
| Brevard College*                  | Ferrum College*                 | Marquette University         | Queens University*          | University of Pittsburg           |
| Brown University*                 | Free Will Baptist College       | Mars Hill College*           | Randolph-Macon College      | University of Tennessee           |
| Campbell University*              | Furman University               | Mary Baldwin College         | Regis University            | University of Virginia            |
| Carnegie Mellon University        | Gardner-Webb University*        | Massachusetts College of Art | Rensselaer                  | Vanderbilt University             |
| Catawba College                   | Gaston College*                 | Mercer University            | Ringling College            | Virginia Military Institute       |
| Charleston Southern University    | Georgetown University           | Meredith College*            | Roanoke College             | Virginia Tech University          |
| The Citadel                       | Georgia Tech                    | Montreat College             | Rochester Tech*             | Virginia State University         |
| Clark Atlanta University          | Greensboro College              | Mount Olive College*         | Salem College*              | Wake Forest University            |
| Clemson University                | Guilford College                | Michigan State University    | SCAD                        | Washington and Lee University     |
| Coastal Carolina University       | Hampden Sydney                  | Milligan College             | Siena College               | Washington University             |
| College of Charleston             | Hampton University              | Morehouse College            | Southern Wesleyan           | Wellesley College                 |
| Columbia International University | High Point University           | Mt. Holyoke University       | Spelman College             | Western Carolina University*      |
| Columbia University               | Howard College                  | NC A&T University            | St. Andrews College         | Wingate University                |
| Cornell University                | Indiana University              | NC Central University*       | St. Augustine's College     | Winston Salem State University*   |
| Central Piedmont                  | Johns Hopkins University        | NC State University*         | Syracuse University         | Winthrop University               |
| Davidson College                  | Johnson and Wales University    | NC Wesleyan College          | Temple University           | Wofford College                   |
| DeVry University                  | Johnson C. Smith University     | New York University          | Texas Southern University   | Young Harris College*             |

\* Indicates schools enrolling one or more members of the Class of 2011