



# **Virginia Community College System: Advancing the Commonwealth's Learning Potential**

**Presentation to:**

**House Joint Resolution 25 Subcommittee**

**August 1, 2006**

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# Virginia's Community Colleges

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|---|--|--|--|
| <b>1 Blue Ridge</b><br>Weyers Cave                              | <b>9 Lord Fairfax</b><br>Fauquier, Middletown  | <b>16 Rappahannock</b><br>Glenns, Warsaw           | <b>20 Tidewater</b><br>Chesapeake        |
| <b>2 Central Virginia</b><br>Lynchburg                          | <b>10 Mountain Empire</b><br>Big Stone Gap   | <b>17 Southside Virginia</b><br>Alberta, Keysville | <b>Norfolk</b>                           |
| <b>3 Dabney S. Lancaster</b><br>Clifton Forge                   | <b>11 New River</b><br>Dublin  | <b>18 Southwest Virginia</b><br>Richlands          | <b>Portsmouth</b>                        |
| <b>4 Danville</b><br>Danville                                   | <b>12 Northern Virginia</b><br>Alexandria, Annandale,<br>Loudoun, Manassas,<br>Springfield, Woodbridge | <b>19 Thomas Nelson</b><br>Hampton, Williamsburg   | <b>Virginia Beach</b>                    |
| <b>5 Eastern Shore</b><br>Melfa                                 | <b>13 Patrick Henry</b><br>Martinsville  |  | <b>21 Virginia Highlands</b><br>Abingdon |
| <b>6 Germanna</b><br>Fredericksburg<br>Locust Grove             | <b>14 Paul D. Camp</b><br>Franklin, Suffolk  |  | <b>22 Virginia Western</b><br>Roanoke    |
| <b>7 J. Sargeant Reynolds</b><br>Goochland, Henrico<br>Richmond | <b>15 Piedmont Virginia</b><br>Charlottesville   |  | <b>23 Wytheville</b><br>Wytheville       |
| <b>8 John Tyler</b><br>Chester<br>Midlothian                    |  |  |  |



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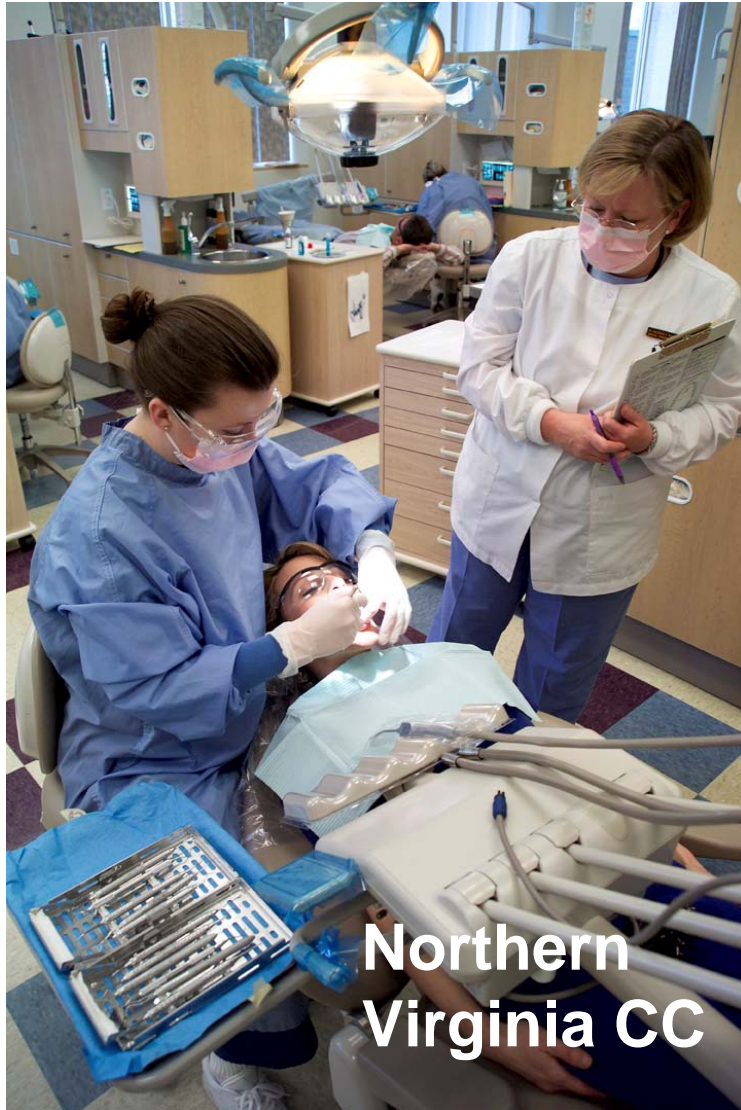
# **Overview of VCCS Role in Math, Science and Technology Education and Workforce Development**

- **Virginia's 23 community colleges and 40 campuses serve every locality in the Commonwealth**
- **Community colleges meet the educational needs of over 300,000 students annually**
- **Virginia's community colleges create a natural network that promotes economic opportunity, workforce development, and a better quality of life for all Virginians**
- **Virginia's 23 community colleges offer a comprehensive collection of relevant education and training programs**
  - **Transfer to 4-year institutions**
  - **Timely responses to local business and industry**
- **Math, Science and Technology programs comprise a significant part of the offerings**



# **Math, Science and Technology Programs**

- **All 23 VCCS colleges offer programs in Math, Science and Technology**
- **The VCCS offers over 25 academic programs in Math, Science and Technology related disciplines**
  - **In 2005-06, almost 19,000 students were enrolled in Math, Science and Technology degree programs**
  - **In 2004-05, over 1,500 students completed programs in Science and Engineering**
- **The VCCS also offers certificates and diplomas in closely related program areas**
  - **Disciplines include biomedical, engineering technology and modeling and simulation**
  - **In 2004-05, over 275 students completed certificates in Science and Engineering**





# Career Switcher Program


- **Statewide program to prepare career professionals to become classroom teachers**
  - Created in Fall 2004
  - Developed to respond to the teacher shortage and meet the needs of Federal *No Child Left Behind* Legislation
- **The program uses flexible, innovative instructional delivery**
- **95% of individuals enrolled completed endorsements in Math, Science and Technology areas**
- **Switchers enter from varied professions with degrees: Bachelor's (62%), Master's (25%), Doctorate (7.5%) or Professional (5%) Degrees**
- **The program produces new math and science teachers for Virginia's classrooms**

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# **Dominion TechWays**

**Dominion TechWays: A National Science Foundation Project.**

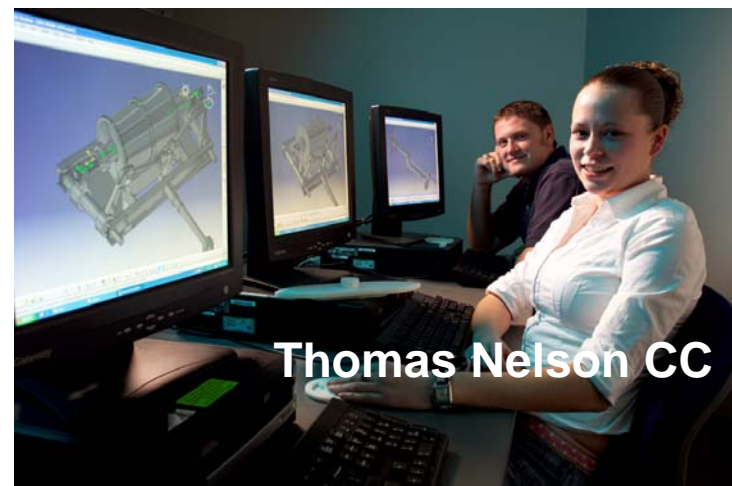
**Last year, the project:**

- **Developed new IT programs in Computer Gaming and Wireless Technologies**
  - **Produced 15 new articulation agreements between community college and university IT programs**
  - **Developed the first statewide articulation agreement between VDOE and VCCS**
  - **Provided certification training and testing to over 160 faculty and teachers**
  - **Trained over 200 technology faculty and teachers in real world business applications**
  - **Provided work-based learning opportunities to over 300 students**
  - **Piloted new college courses in career planning, portfolio development and Cyber-ethics**
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# **College Initiatives with Technology Industries to Locate in Southwest Virginia**

- **CGI-AMS and Northrop Grumman – world-class leaders in information technology and business processing services – will employ 700 people with math, science and technology skills at their new locations in Russell County**
- **Community colleges in the region are developing academic and career pathway programs to respond to the need**
  - **They offer degree and certificate programs in software development, networking systems, web and systems management**
  - **Dual enrollment programs allow high school students to receive both high school and college credits in computer programming, computer networking and other technology areas**
  - **Southwest Virginia Community College offers a “Fast Track” program for software development, a 34-week program for qualified candidates to acquire necessary skills to become a computer programmer**
  - **Colleges are working closely with Southwest Virginia Higher Education Center to link programs to four-year institutions and to businesses**





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# **Community College Role in Economic Development**

- **Virginia's community colleges play an essential role in the success of economic development efforts**
- **Research agenda is a positive economic direction for Commonwealth**
  - **Intellectual capital efforts can result in creation of new jobs and diversify the economy**
- **Research industries will be drawn to the Commonwealth only if they have access to a highly skilled workforce**
- **Virginia's community colleges can provide the necessary, front-line skilled workforce**

# **A look at the future...**

- **VCCS colleges have a great potential for growth in the areas of Math, Science and Technology**
- **VCCS colleges have the ability to quickly respond to the education and training needs of business and industry and can provide the Commonwealth with a highly skilled, trained workforce**
- **VCCS has developed a transfer partnership with Virginia Tech's College of Engineering which will increase the number students in the Engineering pipeline**
- **VCCS colleges can be the bridge between high school and work by developing career pathways that meet the workforce needs of industry leaders**