

**Program Model for GSST**  
**Starting 2010-11 School Year**  
 (High School and College Credit Subject to Review)

**Engineering Strand** (Prerequisite Pre-Calculus)

11th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Calculus-based Engineering Physics I:            Foundations &amp; Modeling  <i>2 HS/4 TNCC credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Research Methodology &amp; Ethics  <i>1 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Calculus  <i>1 HS/8 TNCC credits</i> </div>	<b>4 HS/12 college credits</b>
12th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Calculus-based Engineering Physics II:            Maxwell to Hawking  <i>2 HS/4 TNCC credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           H. Research/Mentorship Program  <i>2 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Multi-Variable Calculus/Calculus/            Linear Algebra or Statistics  <i>1 HS/7 TNCC credits for Multi Var/LA</i>  <i>1 HS/3 TNCC credits for Statistics</i> </div>	<b>5 HS/7-14 college credits</b>

**Biological Science Strand** (Prerequisite HS Biology, HS Chemistry and Algebra II/Trig)

*It is recommended that students take high school Physics at their home school division prior to graduation.*

11th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Advanced Chemical Analysis  <i>2 HS/8 TNCC credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Research Methodology &amp; Ethics  <i>1 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Modern Pre-Cal or Calculus  <i>1 HS/6 TNCC credits for Pre-Calculus</i>  <i>1 HS/8 TNCC credits for Calculus</i> </div>	<b>4 HS/14-18 college credits</b>
12th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Concepts &amp; Controversies in            Environmental Science  <i>2 HS credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           H. Research/Mentorship Program  <i>2 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Multi-Variable Calculus/Calculus/            Linear Algebra or Statistics  <i>1 HS/8 TNCC credits for Calculus</i>  <i>1 HS/7 TNCC credits for Multi Var/LA</i>  <i>1 HS/3 TNCC credits for Statistics</i> </div>	<b>5 HS/11-16 college credits</b>

**Scientific Programming Strand** (Prerequisite Algebra II/Trig)

11th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Inquiry Physics &amp; Scientific            Programming I – Dynamics  <i>2 HS/estimate 7 TNCC credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Research Methodology &amp; Ethics  <i>1 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Modern Pre-Cal or Calculus  <i>1 HS/6 TNCC credits for Pre-Calculus</i>  <i>1 HS/8 TNCC credits for Calculus</i> </div>	<b>4 HS/10-12 college credits</b>
12th grade year	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Inquiry Physics &amp; Scientific            Programming II – Digital Devices  <i>2 HS/estimate 4 TNCC credits</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           H. Research/Mentorship Program  <i>2 HS credit</i> </div>	<div style="border: 1px solid black; padding: 5px; text-align: center;">           Multi-Variable Calculus/Calculus/            Linear Algebra or Statistics  <i>1 HS/8 TNCC credits for Calculus</i>  <i>1 HS/7 TNCC credits for Multi Var/LA</i>  <i>1 HS/3 TNCC credits for Statistics</i> </div>	<b>5 HS/7-12 college credits</b>