

# Charting the Course

CLICK THE LINKS BELOW TO EXPLORE...



## Career Clusters

- [Agriculture, Food & Natural Resources](#)
- [Architecture & Construction](#)
- [Arts, A/V Technology & Communications](#)
- [Business Management & Administration](#)
- [Education & Training](#)
- [Finance](#)
- [Government & Public Administration](#)
- [Health Science](#)
- [Hospitality & Tourism](#)
- [Human Services](#)
- [Information Technology](#)
- [Law, Public Safety, Corrections & Security](#)
- [Manufacturing](#)
- [Marketing](#)
- [Science, Technology, Engineering & Mathematics \(STEM\)](#)
- [Transportation, Distribution & Logistics](#)

## TCE Center Programs

- [Advanced Technology Center](#)
- [Tech Center](#)

## High School Academies

- [Entrepreneurship & Business](#)
- [Global Studies & World Languages](#)
- [Governor's STEM & Technology](#)
- [Green Run Collegiate](#)
- [Health Sciences](#)
- [International Baccalaureate](#)
- [Legal Studies](#)
- [Mathematics & Science](#)
- [Visual & Performing Arts](#)

## Dual Enrollment Programs

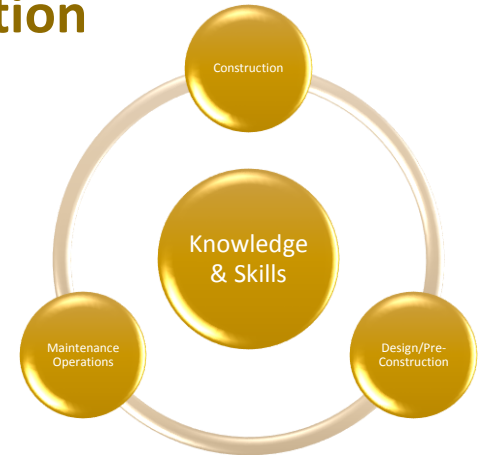
- [Tidewater Community College \(TCC\)](#)

# Architecture & Construction

This Program of Study prepares learners for careers in designing, planning, managing, building and maintaining the building environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.

## Pathways:

- Construction
- Design/Pre-Construction
- Maintenance Operations



Map pin denotes Virginia Beach Economic Development key industries aligned with career clusters

# Suggested Learning Experiences

<b>Middle School Electives</b>	<ul style="list-style-type: none"> <li>• Exploratory Technology Education Exploratory, Computer Solutions, Advanced Computer Solutions, and Keyboarding</li> </ul>
<b>Advanced Studies Diploma Coursework</b>	<ul style="list-style-type: none"> <li>• <b>ENGLISH:</b> Any sequence meeting graduation requirements</li> <li>• <b>MATH:</b> Algebra I, Geometry, Algebra II or Algebra II Trigonometry, Probability &amp; Statistics and Trigonometry, Math Analysis or any 4<sup>th</sup> math credit</li> <li>• <b>SCIENCE:</b> Earth Science, Biology, Chemistry, Physics or AP Physics</li> <li>• <b>SOCIAL STUDIES:</b> Any sequence meeting graduation requirements</li> </ul>
<b>Standard Diploma Coursework</b>	<ul style="list-style-type: none"> <li>• <b>ENGLISH:</b> Any sequence meeting graduation requirements</li> <li>• <b>MATH:</b> Algebra I, Geometry, Algebra II or any 3<sup>rd</sup> math credit</li> <li>• <b>SCIENCE:</b> Earth Science, Biology or any 3<sup>rd</sup> science credit</li> <li>• <b>SOCIAL STUDIES:</b> Any sequence meeting graduation requirements</li> </ul>
<b>Career Coursework</b>	<ul style="list-style-type: none"> <li>• Basic Technical Drawing, Construction Technology, Engineering Technology I &amp; II, Production Systems, Modeling &amp; Simulation, Engineering Design, Architectural Design, Marine Design, Masonry, Carpentry</li> </ul>
<b>Academy/Center Programs</b>	<ul style="list-style-type: none"> <li>• <a href="#">Advanced Technology Center</a></li> <li>• <a href="#">Governor's STEM &amp; Technology Academy</a></li> <li>• <a href="#">Technical &amp; Career Education Center</a></li> </ul>
<b>Industry Certifications</b>	<ul style="list-style-type: none"> <li>• AutoCAD Certified User, Autodesk Inventor Certified User, Autodesk Inventor Exam Autodesk, Autodesk Revit Arch Exam Autodesk, Brainbench 3D Studio Max, HBI Carpentry Basic, IC3 GS4 Computing Fundamentals, NOCTI Architectural Drafting, NOCTI Cabinetmaking, NOCTI CAD Assessment, NOCTI Carpentry, NOCTI Construction Masonry Bricklaying, NOCTI Electronics Assessment, NOCTI Small Engine Technology, NOCTI Technical Drafting, OSHA 10-Hour Construction Safety and Health</li> </ul>
<b>Student Organizations</b>	<ul style="list-style-type: none"> <li>• <a href="#">SkillsUSA</a></li> <li>• <a href="#">TSA - Technology Student Association</a></li> </ul>
<b>Career Exploration/Enrichment</b>	<ul style="list-style-type: none"> <li>• <a href="#">RU Ready</a></li> <li>• <a href="#">VA Wizard for College &amp; Career Information</a></li> <li>• <a href="#">VA Career V.I.E.W. for K-8 Career Information</a></li> <li>• <a href="#">Major Clarity</a></li> </ul>
<b>Co-operative Education/Internships</b>	<ul style="list-style-type: none"> <li>• Co-op or internship recommended</li> </ul>



# Architecture & Construction

## Career Types by Pathway

HIGH SCHOOL DIPLOMA ON-THE-JOB TRAINING	CERTIFICATE/LICENSE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
<b>CONSTRUCTION</b>				
Carpentry Iron Working Masonry	Carpentry Construction Management Electrical & Power Transmission Iron Working	Carpentry Construction Management Electrical & Power Transmission Iron Working	Construction Management	Construction Management Construction Engineering
<b>DESIGN &amp; PRE-CONSTRUCTION</b>				
	Interior Design Surveying Technology		Architectural Engineering Technology Civil Engineering Technology Interior Design Landscape Architecture	Architectural Engineering Technology Civil Engineering Technology Environmental Design Interior Design Landscape Architecture
<b>MAINTENANCE &amp; OPERATIONS</b>				
Electrical/Electronics Equipment, Installation & Repair Grounds-keeping Heating, Air Conditioning, & Refrigeration Technology	Electrical/Electronics Equipment, Installation & Repair Grounds-keeping Heating, Air Conditioning, & Refrigeration Technology	Electrical/Electronics Equipment, Installation & Repair Grounds-keeping Heating, Air Conditioning, & Refrigeration Technology	Industrial Engineering	

Adapted from: [www.nbexcellence.org](http://www.nbexcellence.org) - ACPGuide1617c.pdf