

Career Cluster: Engineering and Technology Education/(STEM)  
 Career Cluster Pathway: Engineering and Technology

CTE Program: **Technical Design (8401000)**  
 Industry Certifications: ADESK002,008,011

**16 REQUIRED CREDITS**

**8 ELECTIVE CREDITS REQUIRED**

|  |   |   |  |   |  |  |   |
|--|---|---|--|---|--|--|---|
| <b>Collier County<br/>Program of Study</b> | <b>ENGLISH<br/>(4 credits)</b>            | <b>MATH<br/>(4 credits)</b>               | <b>SCIENCE<br/>(3 credits,<br/>2 with lab)</b> | <b>SOCIAL<br/>STUDIES<br/>(3 credits)</b> | <b>CAREER EDUCATION PROGRAM<br/>COURSES</b>  |  | <b>RECOMMENDED<br/>ELECTIVES<br/>(State University<br/>Aligned)<br/><br/>(One virtual course<br/>is required)</b> |
|  | AP- Adv. Placement<br>DE- Dual Enrollment | AP- Adv. Placement<br>DE- Dual Enrollment | AP- Adv. Placement<br>DE- Dual Enrollment      | AP- Adv. Placement<br>DE- Dual Enrollment | <b>Other Requirements:</b><br>Pass FCAT 2/PARC – Reading Level 3, pass Algebra I EOC, and 30% of EOC Exam for Biology, Algebra 2, Geometry, US History |  |   |

**Dual enrollment and CTE courses satisfy graduation and Bright Futures Gold Seal Vocational Scholar requirements. Agriscience Foundations and Aerospace Technology satisfy core science requirements. State Approved industry certifications lead to college credit and may substitute for up to two high school credits of math and one credit of science. One online course and a 2.0 is required for graduation. Visit [www.flvs.org](http://www.flvs.org) and your counselor.**

|                    |   |                                     |   |  |   |  |  |                                    |  |
|--------------------|---|-------------------------------------|---|--|---|--|--|------------------------------------|--|
| <b>HIGH SCHOOL</b> | <b>9</b>  | English I or Honors (1)             | Algebra 1 or Honors (1)                             | Earth & Space Science or Honors (1)                      | Elective (1)                              | HOPE (1)   | Technical Design I 1-H(1)<br><br>(Art Requirement) | Foreign Language 1 (1)             |  |
|                    | <b>10</b>   | English 2 or Honors (1)             | Algebra I/H or Informal Geometry or Geometry/ H (1) | Biology or Honors (1)                                    | World History or Honors or AP (1)         | Aerospace Technology (science credit) or Elective (1)  | Technical Design 2-H (1)                           | Foreign Language 2 (1)             |  |
|                    | <b>Students are encouraged to take the ACT, SAT or PERT during 11<sup>th</sup> grade. Scores on the FCAT, FACT 2.0 and EOCs' should determine college readiness</b> |                                     |   |  |   |  |  |                                    |  |
|                    | <b>11</b>   | English 3 or Honors or DE or AP (1) | Geometry/H or Algebra 2/H or DE or AP (1)           | Chemistry or Physical Science or Physics or DE or AP (1) | American History or Honors, DE or AP (1)  | Math or Elective (1)                                   | Technical Design 3 -H (1)                          | Foreign Language 3 or Elective (1) |  |
|                    | <b>12</b>   | English 4 or Honors or DE or AP (1) | Algebra 2/H or College Ready Math or DE or AP (1)   | Environmental Science or Physics or Elective (1)         | Am Gov/Economics or Honors or DE or AP(1) | Executive Internship or Apprenticeship or Elective (1) | Advanced Technology Application-H (1)              | FL Virtual Course (1)              |  |

|                      |   |  |  |
|----------------------|---|--|--|
| <b>POSTSECONDARY</b> | <b>Based on this Career Cluster and identified career and identified technical education program, the following postsecondary options are available</b> |  |  |
|                      | <b>TECHNICAL CENTER PROGRAM(S)</b>  | <b>COMMUNITY COLLEGE PROGRAM(S)</b>  | <b>UNIVERSITY PROGRAM(S)</b>   |
|                      | C100200-Drafting (1500 hrs.)- PSAV Certificate-LWIT   | -Drafting & Design Technology, AS/AAS (64 cr.) (statewide)<br>-Architectural Design & Const. Tech., AS, (66 cr.) FSC, FSW<br>-Industrial Mgmt. Tech. (nuclear power), AS (60 cr.), FSC<br>-Computer -Aided Drafting, AS (72 cr.), Keiser University<br>-Civil Engineering, AS (63 cr.) - FSW | -Civil Engineering, BS (128 cr.) FGCU<br>-Environmental Engineering, BS (128 cr.) FGCU<br>-Information Systems Mgmt, BS including (48 cr.) of Design & Drafting Track - Hodges University<br>-Design & Drafting, AS (60 cr.) - Hodges University<br>-Technology Education Teacher, BS, (129 cr.) - Statewide<br>- Architecture, BDES, (120 cr.) UF<br>- Interior Design, BS/BA,(120 cr.) FSU |

|   |  |   |   |
|---|--|---|---|
| <b>ARTICULATIONS/<br/>CREDIT</b>  | <b>High School Students to PSAV<br/>Technical Center Program</b>   | <b>Technical Center or High School to<br/>Community or State College</b>  | <b>State and Community Colleges to<br/>Universities</b>   |
|   | (Hours awarded are based on competencies achieved)<br><br><b>8401000 <u>Technical Design</u></b><br><br>(TO)<br><br><b>Drafting PSAV: C100200</b><br><b>SCNS: TDR0070, TDR0370</b><br><br><b>Common OCPs</b><br><b>OCP A Blueprint Reader (150)</b><br><b>OCP B Drafting Assistant (450)</b>                                   | <b>PSAV Drafting program to <u>FL Southwestern State College</u>,<br/>Architecture &amp; Bldg. Construction or Civil Engineering<br/>AS/AAS = (up to 7 cr.)</b><br><br><b>Statewide:</b><br><b>(1) –ADESK011 certification = (3 cr.) toward AAS/AS in<br/>Engineering Technology</b><br><b>(2) –ADESK008 certification = (3 cr.) toward AAS/AS in<br/>Arch. Design and Construction Tech. or Building<br/>Const. Tech. or Drafting &amp; Design Technology</b><br><b>(3) - ADESK002 certification = (3 cr.) toward AAS/AS in<br/>Drafting Design Technology or Arch. Design and<br/>Construction Technology</b> | <b><u>FL Southwestern State College to Hodges<br/>University:</u></b><br><b>-Interdisciplinary Studies, BS (62 hrs)</b><br><b>-Computer Information Technology, BS (62 hrs)</b><br><b>-College of Ed.: Drafting Teacher, BS, (62 hrs)</b><br><br><b>Statewide:</b><br><b>-Drafting and Design Technology, AS to<br/>Technology Education Teacher, BS (63 hrs.<br/>toward 129 hrs)</b><br><b>-Regional AS Degree = (60 cr.) toward BAS degree<br/>(120 cr.) in Applied Science</b> |
| <b>Based on the Career Cluster of interest and identified CTE program the following sample career specialties</b>   |  |   |   |
| <b>CAREERS</b>  | <b>Technical Centers</b>   | <b>Community Colleges</b>   | <b>4 Year Colleges and Universities</b>   |
|   | Architectural and Civil Drafter<br>Civil Engineering Technicians<br>Computer Aided Drafter (CAD)<br>Drafting Assistant<br>Cabinet Maker<br>Designer Trainee (CAD)<br>Blueprint Reader  | Architectural Detailer<br>Surveying and Mapping Technicians<br><b>(DOL) Vocational Education Teacher, Postsecondary<br/>(HSHW)</b><br><b>(DOL) Construction and Building Inspectors* (HSHW)</b><br><b>(DOL) First-line Super. of Construction &amp; Ext (HSHW)</b>  | Architect<br>Landscape Architect<br>Landscape Designer<br>Surveyors<br><b>(DOL) Construction Manager (HSHW)</b><br><b>(DOL) Cost Estimators (HSHW)</b><br><b>(DOL) Civil Engineers (HSHW)</b><br><b>(DOL) Interior Designers</b>  |
| <b>INDUSTRY CERTIFICATIONS</b>  |  |   |   |
| <b>All certifications students have the opportunity to take while in this POS:</b>  |  |   |   |
| ADESK002 Autodesk Certified User – AutoCAD, Autodesk<br>ADESK008 Autodesk Certified User – Revit Architecture, Autodesk<br>ADESK011 Autodesk Certified User - Autodesk Inventor, Autodesk   |  |   |   |
| <b>CAREER AND TECHNICAL STUDENT ASSOCIATION</b>   |  |   |   |
| Florida Technology Student Association (FL-TSA) and SkillsUSA   |  |   |   |
| <b>INTERNSHIP/WORK EXPERIENCE RECOMMENDATIONS</b>   |  |   |   |
| Work, volunteer, intern or shadow for Landscape Architect, Architectural Architect or other engineering companies. Intern and shadow at the city or county planning department, construction or land development companies, and aerospace planning/engineering facilities. Join TSA. Refer to <a href="http://collierschools.com/careertech/internships.htm">http://collierschools.com/careertech/internships.htm</a> for district approved internship opportunities. |  |   |   |
| *****   | Reviewed May 1, 2016 and updated annually. See your Counselor for the most recent plan as student schedules will vary based on the needs of the student. Find detailed graduation requirements at: <a href="http://www.fldoe.org/academics/graduation-requirements">http://www.fldoe.org/academics/graduation-requirements</a> |   |   |

**Technical Design (HS) #8401000**