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| Career Cluster: Engineering and Technology Education (STEM) | CTE Program: Secondary: Stellar Academy of Engineering – Engineering Pathways (9400300)Allen D. Nease High School, St. Johns County School District**Postsecondary: FL State College at Jacksonville**: Civil Engineering, (AS 1715020101), Architectural Design and Construction Technology, AS (AS-1604090100), Drafting and Design, (PSAV – C100200) |
| Career Cluster Pathway: Engineering and Technology | Industry Certification: Secondary: Autodesk User-AutoCAD (ADESK002), Autodesk User-Revit (ADESK025), Autodesk User-Inventor (ADESK011), Autodesk User-Fusion 360 (ADESK032)**Postsecondary:**  Autodesk Cert. Professional – REVIT (ADESK025), Autodesk Certified Professional – AutoCAD (ADESK021) |
| Stellar-Nease-Logo-4c.jpg | 16 CORE CURRICULUM CREDITS | 8 ADDITIONAL CREDITS |
| ENGLISH4 credits | MATH4 credits | SCIENCE3 credits, 2 with lab | SOCIAL STUDIES3 credits | OTHER REQUIRED COURSES**FINE ARTS** (1 credit) **PHYSICAL EDUCATION** (1 credit) | CAREER AND TECHNICAL EDUCATION COURSES | **RECOMMENDED ELECTIVES**(ALIGNED WITH COMMUNITY COLLEGE & STATE UNIVERSITY SYSTEM PROGRAMS) |
| HIGH SCHOOL | * **Students are encouraged to use mycareershines.org to explore careers and postsecondary options.**
* **Students are also encouraged to participate in dual enrollment courses which may be used to satisfy high school graduation or Bright Futures Gold Seal Vocational Scholars course requirements.**
* **One course within the 24 credit program must be an online course. Cumulative GPA of 2.0 on a 4.0 scale for 24 credit program**
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| 9th | English 1 or English 1 Honors | Algebra I (or Alg 1 Honors) or Geometry (or Geo 1 Honors) | Environmental Science or Biology (or Bio Honors) | World History (or Honors or AP) | HOPE – Health Opportunities through Physical Education  | Introduction to Engineering Design-8600550 (Honors Credit) | Elective |
| 10th | English 2 or English 2 Honors | Geometry or Algebra II (or Honors) | Biology, Chemistry, Physics, Anatomy (or Honors Level) | AP Human Geography or Elective | Fine or Practical Arts | Principles of Engineering-8600520(Honors Credit) | Elective |
| 11th | English 3, English 3 Honors or AP Language | Algebra II, Advanced Topics in Math, Probability & Statistics Honors, Pre-Calculus | Chemistry, Physics, Anatomy (or Honors Level) | U.S. History, U.S. History Honors or APUSH | Elective or World Language | Civil Engineering & Architecture-8600590 (Honors Credit) | Elective  |
| 12th | English 4 or English 4 Honors or AP Eng. Literature | Math for College Readiness, AP Statistics, Pre-Calculus or AP Calculus | Marine Science, Earth/Space, or Physics, AP Physics, AP Biology | American Government .5 + Economics .5 or AP Microeconomics/ AP Government | Elective or World Language | Engineering Design & Development-8600650(Honors Credit) | Elective |
| POSTSECONDARY | **Based on the Career Cluster of interest and identified career and technical education program, the following postsecondary options are available.** |
| **TECHNICAL CENTER PROGRAM(S)** | **COMMUNITY COLLEGE PROGRAM(S)** | **UNIVERSITY PROGRAM(S)** |
| **FL State College at Jacksonville**: Engineering Technology Support Specialist – 10 month certificate program**Seminole State College, Sanford:** Computer-Aided Design Technical Certificate – 10 month program | **FL State College at Jacksonville**: Engineering Technology (Advanced Manufacturing) A.S., Architectural Design and Construction Technology – A.S.**Valencia College, Orlando:** Construction and Civil Engineering Technology Associate A.S., Engineering Technology A.S.**Daytona State College, Daytona Beach:** Engineering Technology B.S., Engineering Technology Electrical Engineering Concentration B.S. | **University of N. FL, Jacksonville: Engineering** – Civil, Electrical, Mechanical, Advanced Manufacturing B.S.**University of FL, Gainesville: Engineering** – Civil, Environmental, Mechanical, Mechanical, Industrial, Architectural B.S.**University of Central FL, Orlando:** Engineering -- Civil, Environmental, Electrical, Aerospace B.S. |
| CAREER | **Sample Career Specialties – Careers from the Targeted Occupations List are in bold.** |
| Draftsman | Architectural Engineering Assistant, AutoCAD Technician, Draftsman | Engineer -Architecture, Civil, Structural, Transportation, Water Resources, Construction, Mechanical, Environmental, Geological, Surveyor, Draftsman |
| CREDIT | **Articulation and CTE Dual Enrollment Opportunities** |
| **Secondary to Technical Center (PSAV)**(Minimum # of clock hours awarded) | **Secondary to College Credit Certificate or Degree**(Minimum # of clock or credit hours awarded) | **PSAV/PSV to AAS or AS/BS/BAS**(Statewide and other local agreements included here) |
| No Articulation AgreementNo CTE Dual Enrollment | FSCJ: 3 credits immediately awarded upon enrollment for AutoCAD certification – Architectural Design & Construction Tech major, Course CGS2470, ETD 2395 | No Articulation AgreementNo CTE Dual Enrollment |
| **Career and Technical Student Association** |
| FL – TSA - Technology Student AssociationNational Technical Honor Society |
| **Internship/Work Experience Recommendations** |
| Career Academy students may apply for internships at engineering firms after their junior year.  |
| **Program of Study Graduation Requirements:** <http://www.fldoe.org/academics/graduation-requirements> |