### C-STEM Information and Communication Technology (ICT) CTE Program of Study

<table>
<thead>
<tr>
<th>Level</th>
<th>Course</th>
<th>English</th>
<th>Math</th>
<th>Social Science</th>
<th>Science</th>
<th>Other Required Courses or Recommended Electives</th>
<th>Dual or Concurrent Enrollment</th>
<th>Articulated Courses (College Credit for HS Course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Robotics and Video Production</td>
<td>English</td>
<td>Math 7 with Computing</td>
<td>World History / Geography</td>
<td>Life Sciences</td>
<td>Physical Education</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
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<tr>
<td>8</td>
<td>Introduction to Computer Programming or Introduction to Physical Computing and Making</td>
<td>English</td>
<td>Math 8 with Computing</td>
<td>US History / Geography</td>
<td>Life Sciences</td>
<td>Physical Education</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
</tr>
<tr>
<td>9</td>
<td>Computer Programming for Solving Applied Problems</td>
<td>English</td>
<td>Algebra I with Computing and Robotics</td>
<td>Physical Science with Computing and Robotics</td>
<td>Physical Education</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
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<tr>
<td>10</td>
<td>Computing with Robotics or Physical Computing with Pi and Arduino</td>
<td>English</td>
<td>Geometry with Computing and Robotics</td>
<td>World History</td>
<td>Biological Science</td>
<td>Physical Education</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
</tr>
<tr>
<td>11</td>
<td>AP Computer Science Principles</td>
<td>English</td>
<td>Algebra II with Computing and Robotics</td>
<td>US History</td>
<td>Foreign Language I or II &amp; Visual &amp; Performing Arts</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
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<tr>
<td>12</td>
<td>Principles and Design of Cyber-Physical Systems or Physical Computing with Pi and Arduino</td>
<td>English</td>
<td>AP Statistics or Pre-Calculus (with Computing and Robotics)</td>
<td>Government (semester)</td>
<td>Economics (semester)</td>
<td>Physics with Computing and Robotics</td>
<td>Dual</td>
<td>Articulated Courses (College Credit for HS Course)</td>
</tr>
</tbody>
</table>

**Legend:**
- ✔ Course is recommended by industry experts
- # Course is articulated, see comments below
- ★ Course may be taken via concurrent or dual enrollment

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### General Education Requirements

**Area A: English Language, Communication & Critical Thinking**
- Area A: English Language, Communication & Critical Thinking (9 units)
- Area A: English Language, Communication & Critical Thinking (9 units)
- Area B: Scientific Study & Quantitative Reasoning with 1 lab (9 units)
- Area C: Arts & Humanities (9 units)

**Area D: Social Sciences (6 units)**
- Area D: Social Sciences (6 units)

**Area E: Personal Learning & Self Development (6 units)**
- Area E: Personal Learning & Self Development (6 units)

**Area F: Life Sciences (any course recommended in this area)**
- Area F: Life Sciences (any course recommended in this area)

**Area G: Advanced Placement (recommended for college bound)**
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**Area H: Additional Requirements**
- Additional Requirements are counted for credit in more than one area, i.e. double counted, students must complete additional transferable units to result in a cumulative total of 60 units

**Computer & Information Systems Manager**
- Computer Support Specialists
- Help Desk Specialists
- System Administrators
- Software and Hardware Salesperson
- Bookkeeper
- E Commerce
- Small Business Entrepreneur

**For students interested in attending a UC Campus, be aware that courses included on the CSU GE pattern are not always consistent with IGETC GE Pattern for UC Admission**

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**Suggested Majors:**
- Business, with a concentration in Management Information Systems, Business Information Systems
- Industry recognized certifications: C-STEM Information and Communication Technologies
- Credentials, licenses, or apprenticeships related to this pathway: COMP TIA, Microsoft, CISCO, etc.
- Social Media/Media Specialist

**Comments:**
- Courses with this color are UC Davis C-STEM courses. One or more of C-STEM courses can be replaced by other equivalent or relevant courses.
- Prerequisite requirements may vary by school and may alter the sequence of courses above.
- This template is based upon requirements for CSU transfer pattern and assumes that all basic skills (remedial) coursework is completed.
- Where there are course numbers identified, the course number references the CID course. Course content for these courses may be found at www.c-id.net/descriptors. Per Title 5, students may only receive credit for articulated high school work upon completion of a credit by exam mechanism that ensures that the objectives of the community college course have been met. Completion of an articulated course...