



Merced College
Computer Science



How Transferring Use to Work



Susan takes classes at a Junior College:
CPSC 06
CPSC 39
CPSC 01

Now she is going to transfer to a CSU



Fresno accepts, and gives credit for, CPSC 01 and CPSC 06... but not CPSC 39



Stanislaus accepts, and gives credit for, CPSC 01 and CPSC 06 and CPSC 39... but not some of her General Ed classes

Choices in Transferring



She has the choice to transfer, but has to struggle with the CSU accepting all of her classes and giving her the proper amount of credit for them.

The AS-T degrees are meant to solve this problem...

The AS-T Degree

A degree with a guarantee

- * AS-T stands for Associate of Transfer Degree
- * It is a degree that was created for students, to make transferring easier within the California College system.
- * It states that if you receive this degree that you are guaranteed Junior level status at any state college; and that they must accept ALL 60 units.
- * <http://www.adegreewithaguarantee.com/AboutTheProgram.aspx>

What the AS-T Degree Means for You

- * It means that you are certain that you are going to be able to transfer to the CSU system.
- * It means that you save money by taking 60 units at a Junior College – the unit price at Merced College is cheaper.
- * It means that you are leaving Merced College with a degree.

Classes You Need to Complete to get the Computer Science AS-T Degree

First Semester	Second Semester
CPSC 6 - Programming and Methodology I (3) ~OR~ ENGR/MATH 14 - C++ Programming (3)	CPSC 39 - Programming and Methodology II (4)
MATH 4A - Calculus I (4) (IGETC Breadth Area 2)	MATH 4B - Analytical Geometry and Calculus (4)
3 GE classes (9)	3 GE classes (9)
TOTAL UNITS = 16	TOTAL UNITS = 17
Third Semester	Fourth Semester
PHYS 4A - Physics (4) (IGETC Breadth Area 5)	PHYS 4B - Physics (4)
CPSC 42 – Computer Architecture and Organization (3)	CPSC/MATH 07 - Discrete Structures (3)
2 GE class (6)	2 GE class (9)
TOTAL UNITS = 13	TOTAL UNITS = 16
TOTAL UNITS =	60

Classes at Merced College

- * 2 Programming classes:
 - * CPSC 06 or ENGR/MATH 14 – Programming and Methodology I
 - * CPSC 39 Programming and Methodology II
- * 2 Other CPSC classes:
 - * CPSC 42 – Computer Architecture
 - * CPSC 07 – Discrete Structures
- * 2 Math:
 - * MATH 4A – Calculus I
 - * MATH 4B - Analytical Geometry and Calculus
- * 2 Physics:
 - * PHYS 4A – Physics
 - * PHYS 4B – Physics

GE at Merced College

MERCED COLLEGE

WWW.MCCD.EDU

IGETC 2012-2013

Intersegmental General Education Transfer Curriculum

Completion of the IGETC permits a student to transfer from Merced College to a campus in either the California State University or the University of California system without the need after transfer to take additional, lower division, general education courses to satisfy the campus GE requirements. IGETC is not recommended for majors that require extensive lower division preparation. Consult with your counselor. Students may also fulfill the general education requirements by completing the specific lower division breadth and general education requirements of the school or college of the campus to which the student intends to transfer. Students intending to transfer to the California State University System may also complete the requirement by fulfilling the CSU's general education requirement.

Both the California State University and the University of California have a specific American Institutions requirement that is separate from their general education requirements. Completion of the IGETC will not satisfy the American Institutions requirement. Courses used to satisfy the American Institutions requirement may not be counted to satisfy either a Humanities or a Social and Behavioral Science requirement.

AREA 1: English Communication

UC: Select one course from 1A & 1B.
CSU: Select one course from 1A, 1B and 1C.

Group A: English Composition [AP accepted]

ENGL-01A

Group B: Critical Thinking

ENGL-PHIL-13*, 13H*

Group C: Oral Communication (CSU REQUIREMENT ONLY)

COMM-01+, 01H+, 04

AREA 2: Mathematical Concepts and Quantitative Reasoning

[AP accepted]

(One course: 3 semester units)

MATH-02+, 04A+, 04B+, 04C+, 05A+, 05B+, 06, 08, 10, 15, 26+
PSYC 05

AREA 3: Arts & Humanities

A minimum of three courses (nine semester units) are required with at least one course from 3A and 3B

3A. Arts [AP & IB accepted]

ART-01, 02

DRAM/ENGL-03

ENGL/DRAM-03

ENGL-14

HUM-21

MUS-01, 04A, 04B, 11, 12, 13, 14

3B. Humanities [AP & IB accepted]

DRAM-01

ENGL-01B*, 04A, 04B, 05, 06A, 06B, 07, 10, 11, ENGL/HUM-18

FREN-03*, 04*

GERM-02*, 03*, 04*

HIST-04A, 04B, 08A*, 08B*, 06A, 06B, 17A**, 17AH**, 17B**, 17BH**

HUM-15**

HUM-01+, 01H+, 02+, 02H+, 15*, HUM/ENGL-18

PHIL-01+, 01H+, 03, 04, 05, 15

SPAN-02**+, 03*, 04*, 10**+, 11**+

AREA 4: Social & Behavioral Sciences [AP & IB accepted]

A minimum of three courses (9 semester units) is required from at least two disciplines

4A. Anthropology and Archaeology

ANTH-02, 10

4B. Economics

AGBS-11

ECON-01A, 01B

4C. Ethnic Studies

HIST-08A*, 21+, 22+, 23+, 24+

HUM-15**

4E. Geography

GEOG-02

4F. History

HIST-08B*, 17A**, 17AH**, 17B**, 17BH**, 21+, 22+, 23+, 24+

4G. Interdisciplinary, Social & Behavioral Sciences

CLDV-01

COMM-30

SCSC-01+

4H. Political Science & Government & Legal Institutions

PCSC-01, 02

4I. Psychology

PSYC-01A+, 01AH+, 15, 20, 22, 23, 25, 35, 36

4J. Sociology & Criminology

SOC-01

AREA 5: Physical & Biological Sciences

A minimum of two courses (7-9 semester units) is required with at least one course from 5A and 5B. At least one course must be a lab course listed in *5C Laboratory*.

5A. Physical Science [AP & IB accepted]

ARCH-01

ASTR-01

CHEM-02A+, 02B+, 04A, 04B

GEOG-01

GEOLOG-01, 02*

PHSC-01+

PHYS-02A+, 02B+, 04A+, 04B+, 04C+, 10+

SOIL-10

5B. Biological Science [AP & IB accepted]

ANTH-01

BIOL-01+, 02, 04A, 04B, 04BH, 06, 08, 09, 12, 13, 16, 18, 20, 25

PLSC-10

5C. Laboratory [AP & IB accepted]

ANTH-01

ASTR-01L

BIOL-01+, 02, 04A, 04B, 04BH, 12, 13, 16, 18, 20

CHEM-02A, 02B, 04A, 04B

GEOG-01L

GEOLOG-01, 02

PHSC-01L

PHYS-02A, 02B, 04A

PHYS-04B, 04C

SOIL-10

AREA 6: Language Other Than English [AP & IB accepted]

(UC ONLY)

Requires proficiency equivalent to two years of high school study in the same language. Courses from another college, AP/IB, or courses above the proficiency level may also be used to meet this requirement.

FREN-01, 02, 03*, 04*

GERM-01, 02*, 03*, 04*

HINDS-01, 02

JPNS-01B, 02

SPAN-01+, 02**+, 03*, 04*, 10**+, 11**+

*Transfer Credit is limited by UC or CSU or both. Please consult with a counselor.

**Courses listed in multiple areas shall not be certified in more than one area except for courses in Area 6, Language Other Than English, which can be certified in both Areas 5B and 6

- Must take the 30 units of GE from the proper Areas
- MATH 4A counts for Area 2
- PHYS 4A counts for Area 5

What is Computer Science

- * Computer Science is the study of computers.
- * It is making a computer do what we want them to do.
- * Using software.
- * Making software.
- * Helping people with computers.

How a programming language works



People understand words, symbols, and pictures.



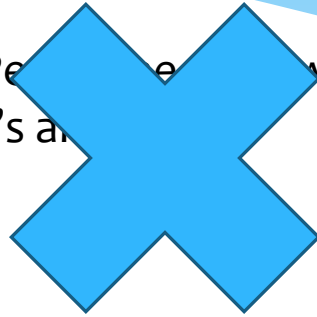
Computers can only execute 1's and 0's



How a programming language works



People write in
1's and 0's



Computers understand
words.



How a programming language works



People write program
in words



Program is
translated into 1's
and 0's



Now the computer
can execute the
program



Jobs in Computer Science

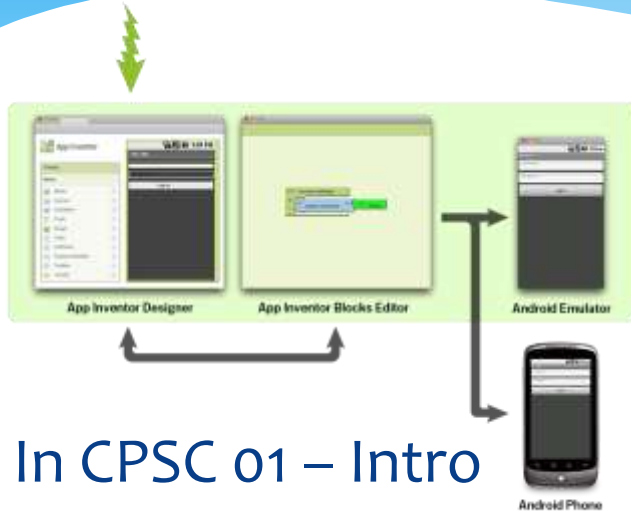
Of the technology-related jobs that the Bureau of Labor and Statistics identifies as having the most growth potential over the next 10 years, mobile application development rises to the top, with 292,000 more jobs expected over the decade.



Making Mobile Apps at Merced College



Google App Inventor Servers



- * In CPSC 06 and CPSC 39, Programming and Methodology I and II, we are using the Android SDK within Eclipse



- * In CPSC 01 – Intro to MIS we are using App Inventor



- * In CPSC 49, Flash Programming, we are building apps for Android, iPhone, and the web with Flash Builder.

Jobs in Computer Science

Big Data Analytics

“There are huge opportunities,” Kasmouski says. “It’s applied math and statistics, and some of the top candidates have Ph.Ds in math. It’s those people who write the actual algorithms and then hand them to programmers to implement in Java, C# or C++,” he explains. “Ideally, I’d find someone who has an undergrad degree in computer science and a graduate degree in math, or *vice versa*.”

Jobs in Computer Science

Security

- * The Pentagon is planning to expand its cybersecurity force nearly fivefold over the next several years in a bid to bolster its defensive and offensive computer capabilities.



Jobs in Computer Science

Web Development

- * The BLS reports that Web developers made a median salary of \$77,990 in 2011. The highest-paid 10 percent in the profession earned \$124,860, while the lowest-paid earned \$42,770 that year.



Jobs in Computer Science

- * You will never be without a job...are world is embedded with computer technology, and we are always going to need technically literate people to take care of it.



Find more info

- * <http://www.c-id.net/degreereview.html>
- * <http://boonduck.com/>
- * <http://www.mpict.org/>