Computer Classes offered at South (from the Curriculum Guide, with updates)
Taylor, 2017-18 School Year
*College Now courses

Keyboarding
.5 Credit: Applied Arts or Other Subjects

Do you want to learn to type? Do you use the "hunt and peck" method with a result of less than 25 words per minute? Would you like instruction and credit for gaining an important and useful skill? Keyboarding class is easy and fun. You'll use MicroType 5.0 in structured daily practice and you will learn to type well. Students who finish the course in half the term are invited to choose another computer class/topic, and to receive .25 credits for each.

* Computer Fundamentals
.5 Credit: Applied Arts or Other Subjects

This is a hands-on introduction to personal computers and application software. Students will learn basic computer terminology, the role of computers in society, the Windows operating system and the use of word processing, spreadsheet, presentation, database, and Internet software (Microsoft Office 2013 and Google Apps). It's a great course for you if you want to learn your way around the computer or would like to expand your knowledge and get college credit in the meantime. This course articulates with **CIS 101: Computer Fundamentals** at Lane Community College; students earn three (3) Computer Science credits.

* Computer Applications: Excel
.5 Credit: Applied Arts or Other Subjects

Receive college credit for learning how to use Microsoft Excel! Excel is a powerful program for crunching numbers, making cool charts, and performing "spreadsheet magic." Learn all the finer points of spreadsheet software and gain a lot of basic computer skills in the process. This course is self-paced. Students submit all work online via Edmodo, and work towards mastery. It articulates with **BT 123: MS Excel for Business** at Lane Community College. Students can receive four (4) college credits free through the College Now program.

* Web Design
.5 Credit: Applied Arts or Other Subjects

The field of web design and development changes rapidly, as does this course. Currently, students start by exploring principles of design and composition, typography, color, and graphics for the Web. Then, they learn how to write HTML and CSS code and to use a tool called Bootstrap, as instructed through a course on Udemy: Web Developer Bootcamp (students wishing to continue the course, to certify as a Web Developer, are encouraged to do so in a follow-up course with Ms. Taylor). As part of this introductory course, students get experience with various website-building tools, and use their favorites to complete an "Icky Site Makeover" project, and then a portfolio and/or client site. This course articulates with **Art 288: Introduction to Web Design** at Lane Community College. Students can receive three (3) college credits free through the College Now program.

Introduction to Computer Science
Requires TWO TERMS to complete

AP Computer Science Principles
1 Credit: Applied Arts or Other Subjects

In a delightful, two-term mashup of two amazing courses, students learn about Computer Science! The two courses are:

• **AP CS Principles** - Using the BJC (Beauty & Joy of Computing) curriculum and Snap! Interface, students create programs that are increasingly complex, learn some of the most powerful ideas of computer science, consider social implications of computing, and prepare for the AP CSP exam, completing parts of the exam in class.

• **Orientation to Computer Science** - Articulating with **CS 160 at Lane (4 CS credits)**, students explore the discipline and profession of computer science. The course provides an overview of computer hardware architecture, the study of algorithms, software design and development, data representation and organization, ethics and the history of computing and its influences on society. The student is exposed to both low-level and high-level programming languages.

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* Mobile App Development   .5 Credit: Applied Arts or Other Subjects

Would you like to learn how apps are developed and to be able to create them yourself? If so, then this course is for you! MIT App Inventor is a tool that was developed at Google and handed off to MIT, where it was infused with wonderful possibilities for education. Students taking this course create over 20 small apps for/in the Android OS, and use either the online emulator or in-class Google Nexus tablets to view and play with them. There are also a dozen great readings that introduce the most important principles relating to app development. This course is self-paced. Students submit all work online via Edmodo, and work towards mastery. It articulates with **CIS 125M: Software Tools: Mobile Development** at Lane Community College. Students can receive four (4) college credits free through the College Now program.

* Game Development   .5 Credit: Applied Arts or Other Subjects

Do you love to play games on the computer, and long to try your hand at making them? If so, then this course is for you! This course is an introduction to the field of game development. It includes a survey of computer game categories and platforms, an overview of the game design and development process, and an introduction to tools used for graphics development and game development. Students create several elementary computer games and a final project that can be more complex. This course articulates with **CIS 125G: Software Tools 1: Game Development** at LCC; students earn four (4) Computer Science credits.

Music Technology (*Digital Music Production*)   .5 Credit: Applied Arts or Other Subjects

Whether you and your DAW are besties or you have no idea what a DAW is, this course will enable you to dwell, grow and create in the world of music - on the computer - for 70 minutes of your school day. You will learn how music is constructed (music theory) as it relates to electronic music production. Demystifying synths, you will explore many of the properties of sound and learn how to manipulate these in a digital environment to create songs of your own! *DAWs for which we have licenses are Ableton Live 9, Logic Pro X, and FL Studio 12. Every computer has GarageBand, as well.*

Advanced Computer Topics - ACT   .5 Credit: Applied Arts or Other Subjects
Pre-requisite: Instructor consent - *If you have taken ACT before, you may repeat the class only if you got an A.*

Advanced Computer Topics (ACT) is a "choose your own adventure" experience for students who are able to drive their own learning in technology. It is ideal for mature students who have a passionate interest in developing skill in a technology area, and need only time, tech resources, and independent learning materials (online tutorials, books, experimentation) to be productive. Students in ACT create their own learning (Project Management*) plan and revise it as needed, setting their own timeline and goals. Topics can include anything of great interest to the student, including but not limited to: Web design, multimedia, graphic design (Adobe Creative Suite), animation, 3D modeling/graphics/animation, engineering (AutoCAD, etc.), video production/editing, music/audio production/editing, digital photography, and programming in various computer languages. *This year we will use Agile project management, using the Scrum framework.*

Programming and Prototyping   .5 Credit: Applied Arts or Other Subjects

Programming and Prototyping is a course designed for CIS CTE candidates, to directly prepare students for real work in the Lane County technology sector. The "prototyping" part of the course involves 3D modeling and printing, often for the purpose of producing parts for robots created in SERT.

The "programming" part of the course requires that students choose one of two pathways:

1. **Web Development** - Focusing on coding in programming languages/technologies that are useful across the stack, the course assumes HTML/CSS knowledge and picks up with JavaScript, jQuery and other front-end technologies, then back-end, then full-stack. Certification and/or internships are strong possibilities.

2. **Mobile Development/**Robotics - Focusing on coding in Python and Java (Robotics & Android development) and/or Swift (iOS development).