

# SPC St. Petersburg College

## COURSE SYLLABUS

Technical Support Fundamentals

BMD 0175

Fall 2015

Syllabus Addendum: [www.spcollege.edu/addendum](http://www.spcollege.edu/addendum)

### **Instructor Information**

Carlos Villafane

Email: [Villafane.Carlos@spcollege.edu](mailto:Villafane.Carlos@spcollege.edu)

### **Academic Department**

### **Course Description:**

This course teaches computer applications for technical support staff in a health care setting. Students become familiar with databases, spreadsheets, technical drawings, and project organization as they apply to various technical projects relative to the clinical engineering department. Students will also explore specific databases used in the documentation of medical device technology management. Includes needs analysis, process documentation troubleshooting computer problems, customer service fundamentals and training end users. 47 contact hours

### **Important Dates and Times**

**Course Dates**

**Class Meeting Day:**

**Course Hours:**

**Class Location:**

### **Learning Outcomes and Objectives:**

1. Students will be able to apply appropriate communication methods when presenting data and information.
2. Students will identify resources and documentation needed to install, configure, upgrade and troubleshoot Operating Systems.
3. Students will, using online resources and research skills, be able to identify part costs and replacement parts.
4. Using online resources and research skills, students will be able to locate service manuals and vendor/service numbers.
5. Students will understand the process of hospital equipment managing.

6. Students will demonstrate ability to recognize and effectively use customer service fundamentals needed for a hospital environment.

### **Requisites:**

Prerequisite: CGS 1070 or demonstration of basic computer literacy with a minimum grade of C.

### **Evaluation**

There will be assigned projects, labs, and online activities. There will also be exams and quizzes that will be taken over the 16 weeks of the course. All assigned activities must be completed by the end of the course. Make-up projects will be given in only extreme circumstances (i.e family emergencies, injury, etc.)

### **Grading**

### **Academic Integrity**

Your integrity as a student is essential to your future success, therefore the academic integrity of this class will be held to a high standard. All work done in and out of class should be done with fairness and honesty. Therefore it is important to avoid any form of plagiarism, cheating, fabrication, forgery, obstruction, multiple submissions, assisting another person in acts of academic dishonesty and computer misuse. In the event of academic dishonesty the penalties you earned will be based on those deemed appropriate by the college. See the syllabus addendum for more information on academic honesty. Please view this link to read more about the academic honesty policy.

<http://www.spcollege.edu/academichonesty/>

### **Attendance and Withdrawal Policy**

The college-wide attendance policy can be seen in the syllabus addendum. For this class, attendance is defined as arriving to class on time and participating in classroom activities (lectures, projects, online activities, labs, etc.) **80% of the class time, by 80% semester reporting attendance date.** If a student fails to participate as defined above, they will be automatically dropped from the class. The college wide attendance policy is included in the Syllabus Addendum:

<http://www.spcollege.edu/addendum/#attend>.

### **Class & Online Activities**

Scheduled classes will include lecture, lab, and online activities. Learning activities will reflect and compliment the learning objectives and weekly lessons. All assignments and activities will be completed

### **Laboratory & Assigned Homework Activities**

All laboratory and assigned homework activities must be completed by the assigned dates.

### **Student Survey of Instruction (SSI)**

The student survey of instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used

solely for the purpose of performance improvement. The survey will be available online, and will be active towards the end of the semester.

### **Hurricane Emergency Preparedness**

In the event that a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, you may be provided the opportunity to complete your course work online. Following the event, please visit the college web site for an announcement of the College's plan to resume operations.

### **Syllabus Changes**

The professor has the right to change or modify the syllabus as he/she sees fit. Notifications of changes will be made to the students. However, once the notifications have been made, it is the responsibility of the student to adhere to the changes.

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## Class Schedule (Tentative) – Fall 2015

Class Dates	Topics & Assignments	Items needed for Class	Assignment Due Dates
<b>Lesson 1</b>	<b>General Introduction and Course Topics</b> <ul style="list-style-type: none"> <li>• Safety Concerns</li> <li>• General Lab Instructions</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 2</b>	<b>Introduction to Computer Literacy</b> <ul style="list-style-type: none"> <li>• Operating Systems</li> <li>• Applications</li> <li>• Computer settings</li> <li>• Connecting</li> <li>• Internet</li> <li>• Storage</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 3</b>	<b>Computer Operating Systems in a Healthcare Setting</b> <ul style="list-style-type: none"> <li>• Computer Systems</li> <li>• Configuring PC Peripherals</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 4</b>	<b>Computer Operating Systems in a Healthcare Setting</b> <ul style="list-style-type: none"> <li>• Hardware</li> <li>• PC and System Terminology</li> <li>• Security</li> <li>• Quiz # 1</li> </ul>	Power Point and/or Lecture	To be determined by Instructor

<b>Class Dates</b>	<b>Topics &amp; Assignments</b>	<b>Items needed for Class</b>	<b>Assignment Due Dates</b>
Lesson 5	<b>Databases for the Documentation of Medical Device Technology Management</b> <ul style="list-style-type: none"> <li>• Medical Device Management Software</li> <li>• Other Databases &amp; Excel Spreadsheets</li> <li>• Medical Device related Information</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 6</b>	<b>Databases for the Documentation of Medical Device Technology Management (Cont.)</b> <ul style="list-style-type: none"> <li>• Online Manuals</li> <li>• Preventative Maintenance Records</li> <li>• MySQL or SQL – Database and Data Structure – How it Works</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 7</b>	<b>Databases for the Documentation of Medical Device Technology Management (Cont.)</b> <ul style="list-style-type: none"> <li>• AIMS (Phoenix Data Systems)</li> <li>• MediMizer</li> <li>• HarvestCEMS</li> <li>• Other Biomedical Management Databases</li> </ul>	Power Point and/or Lecture	To be determined by Instructor
<b>Lesson 8</b>	<b>Data Collection, Analysis and Research</b> <ul style="list-style-type: none"> <li>• Data collection</li> </ul> Basic Data Analysis for Research, Development or Manufacturing of Biomedical Equipment.	Power Point/Lecture	To be determined by Instructor
<b>Lesson 9</b>	<b>Internet Resources for Biomedical Information Systems</b> <ul style="list-style-type: none"> <li>• Systems for Evaluation, Testing and Use of Biomedical Equipment</li> <li>• Local, State and Federal Regulations</li> </ul>	Power Point/Lecture	To be determined by Instructor

<b>Class Dates</b>	<b>Topics &amp; Assignments</b>	<b>Items needed for Class</b>	<b>Assignment Due Dates</b>
<b>Lesson 10</b>	<b>Internet Resources for Biomedical Information Systems</b> <ul style="list-style-type: none"> <li>• Federal Regulatory Agencies, Standards, Problem Notifications and Recalls</li> </ul>	Power Point/Lecture	To be determined by Instructor
<b>Lesson 11</b>	<b>Report Templates and Word Processing Applications</b> <ul style="list-style-type: none"> <li>• Creating Standard Operating Procedure (SOP)</li> <li>• Analyzing, Planning and Writing Technical Reports</li> </ul>	Power Point/Lecture	To be determined by Instructor
<b>Lesson 12</b>	<b>Needs Analysis and Process Documentation</b> <ul style="list-style-type: none"> <li>• Identifying Best Practices for Needs Analysis and Process Documentation</li> </ul>	Power Point/Lecture	To be determined by Instructor
<b>Lesson 13</b>	<b>Needs Analysis and Process Documentation (Cont.)</b> <ul style="list-style-type: none"> <li>• Analyzing, Planning and Drafting Instructions and Related Documentation</li> </ul>	Power Point/Lecture	To be determined by Instructor
<b>Lesson 14</b>	<b>Effective Customer Service for Healthcare Environments</b> <ul style="list-style-type: none"> <li>• Identifying Best Practices for Customer Service Skills by Technical Staff</li> </ul> Customer Skills Techniques and Scenarios	Power Point/Lecture	To be determined by Instructor
<b>Lesson 15</b>	<b>Effective Customer Service for Healthcare Environments (Cont.)</b> <ul style="list-style-type: none"> <li>• Identifying Best Practices for Customer Service Skills by Technical Staff</li> <li>• Customer Skills Techniques and Scenarios</li> </ul>	Power Point/Lecture	To be determined by Instructor
<b>Lesson 16</b>	<b>Last Meeting and Final Performance Test</b>	Test Questions and Related Materials	To be determined by Instructor

*“This product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.”*