Information Technology Fundamentals

Course Text

This course does not utilize a textbook.

Course Description

The IT Fundamentals course offers an overview of IT concepts including: hardware, software, networks, IT careers and skills, databases and ethics with an emphasis on applications of IT in business. The course incorporates multiple current scenarios to help students more clearly recognize the importance of the information and apply their knowledge. Multiple "Professional Perspectives" videos are included to provide insight to students from current IT professionals working in the field.

Course Objectives

After completing this course, students will be able to:

● describe IT as a discipline and discusses the history and future of computing as well as the currently used infrastructure.
● describe information technology systems and their role in converting data to organizational knowledge.
● identify the role of different types of software in a computing environment, and explains the fundamentals of software development.
● recognize and describes functions of basic computer hardware components.
● describe the structure, function, and security associated with networks.
● identify common software architectures, development techniques, and the relationship between software and its environment.
● explain the structure and function of databases
● explain the role of technology in today’s business environment and describes basic concepts of project management.
● evaluate ethical concerns involved in the use of technology.

Course Prerequisites

There are no prerequisites to take IT Fundamentals.

Academic Honesty

Academic honesty is expected of all students. For StraighterLine’s complete Academic Honesty policy please refer to the StraighterLine Student Handbook.

Important Terms

In this course, different terms are used to designate tasks:

● **ADAPTivities**: Adaptive exercises designed to help you retain important content and information. There are generally two types identified by name:

Privacy Policy | Student Handbook
Learn By Doing activities: Learn By Doing activities give you the chance to practice the concept that you are learning, with hints and feedback to guide you if you struggle.

Did I Get This? activities: Did I Get This? activities are your chance to do a quick "self-check" and assess your own understanding of the material before doing a graded activity.

- Quiz: A graded online assessment covering a full module
- Final Exam: A comprehensive proctored final examination

Course Evaluation Criteria

StraighterLine provides a percentage score and letter grade for each course. See Academic Questions section in FAQ for further details on percentage scores and grading scale. A passing percentage is 70% or higher.

If you have chosen a Partner College to award credit for this course, your final grade will be based upon that college's grading scale. Only passing scores will be considered by Partner Colleges for an award of credit.

All required assignments must be submitted in order to be issued a transcript.

Scores are based out of 100% in this course:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Assessment</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Topic Test: Introduction to Information Technology</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>Topic Test: Computer Hardware and History</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>Topic Test: Computer Networks</td>
<td>10%</td>
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<td>5</td>
<td>Topic Test: Computer Software</td>
<td>10%</td>
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<tr>
<td>6</td>
<td>Topic Test: Management of Data</td>
<td>10%</td>
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<tr>
<td>7</td>
<td>Topic Test: The Business of IT</td>
<td>10%</td>
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<tr>
<td>8</td>
<td>Topic Test: Ethics</td>
<td>10%</td>
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<td></td>
<td>Final Cumulative Exam</td>
<td>30%</td>
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<tr>
<td>Total</td>
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<td>100%</td>
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Course Topics and Objectives

<table>
<thead>
<tr>
<th>Topic</th>
<th>Topic Title</th>
<th>Module</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning Strategies</td>
<td>● Learn best practices to complete the course</td>
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<tr>
<td>2</td>
<td>Introduction to Information Technology</td>
<td>● Introduction to Information Technology</td>
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<td></td>
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<td>● IT as a Discipline</td>
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<td>● Data and Information</td>
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<td></td>
<td></td>
<td>● Computer Systems</td>
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<tr>
<td>Chapter</td>
<td>Topic</td>
<td>Topics Covered</td>
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<td>---------</td>
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</table>
| 3       | Computer Hardware and History | • Introduction to Computer Hardware  
• Components of Computer Hardware  
• The History of the Computer |
| 4       | Computer Networks | • Introduction to Computer Networks  
• Network Hardware  
• World Wide Web  
• Network Security and Business Implications |
| 5       | Computer Software | • Introduction to Computer Software  
• Types of Software  
• Software Licensing  
• Programming and Scripting |
| 6       | Management of Data | • Introduction to the Management of Data  
• Data Types and the Power of Databases  
• Data Management Tools |
| 7       | The Business of IT | • Introduction to the Business of IT  
• The IT Department  
• Introduction to Project Management  
• System Development Life Cycle  
• Business Continuity  
• Current and Emerging Technologies |
| 8       | Ethics | • Introduction to Ethics  
• Ethics |
| 9       | Final Examination | |