

# Experiment Teaching outline of Computing Essentials Course

**Course Name** Computing Essentials

**Course Nature** Non-independent-based Course

**Course Attribute** Discipline-based Courses

**Names of Textbook and Tutorial Laboratory Book** Computing Essentials- process plate Tutorial Laboratory Book of Computing Essentials

**Class Hours and Credits** Total Class Hours 50 Total Credits 2.5 Test Hours 14 Test Credits     

**Open Terms** Grade 1 Semester 1

**Pre-Professional Programs** None

## 1 Introduction to the Course and Basic Requirements

*Computing Essentials* is a foundational course that introduces the hardware, software and their operations across the board for the students major in computer and related specialties. This course includes many basic concepts, basic theories and basic knowledge about computer hardware and software. This course is the foundation of many later specialized courses. In this course, the most important feature is the integration of theory and practice. Except for some important theories and knowledge, forming the ability of operation and applying them into practice are required. Consequently, our experiment course is the significant segment, which will help student to accomplish the accumulation of practice, consolidate theory and knowledge, be familiar with basic computer-related operations, is the crucial ground of later courses.

## 2 Course Experiment purpose

First, call for students to know the architecture of computer, master the internal structure of personal computer. Secondly, be familiar with the method of typing Chinese and English. Be familiar with the operation and usage of Microsoft Visual Programming Language(VPL) to control the simulated robotic; Then, be capable of

applying the App inventor to create their APKs and to run them on their phone. At last, students need to know the making use of webpages tools like Dreamweaver and et al.

### 3 Suitable Specialty

Every Specialty in the College of Computer and Information Science

### 4 Main Instruments and Equipments

Hardware: P4 and above, at least memory of 256MB

Software: Window XP OS, basic typing software and Microsoft office 2003

Microsoft Visual Programming Language

App Inventor

Android Simulator

Flash CS3

Photoshop cs 8

Ulead VideoStudio 11

Office2010

### 5 Experimental Method and Basic Requirements

On the basis of the teaching plan, this experiment course amounts to 14 class hours, and is classified as demo, verification and design. There are 6 demo experiments, which sum up to 12 class hours. So students should do the other experiments outside the classes.

### 6. Assessment and Report

Students should submit lab reports in turn according to experiment items. Students' experimental scores will assessed synthetically by the score of their lab reports and the other scores at the end of one semester.

### 7. Settings and Content of Experiment Items

No.	Test Name	Synopsis	Test Hours	No. of Persons	Test attributes	Type of Test	Requirements
<u>1</u>	Computer	◆ Observing the	2	1	Verificat	undergrad	Required

	structure & Typing and Lan Configuration	<ul style="list-style-type: none"> <li>◆ internal structure of PC</li> <li>◆ Typing</li> <li>◆ Construction and configuration of LAN based on the wireless AP</li> </ul>			ion	uate course	
<u>2</u>	PartI:Basic Concept of VPL	<ul style="list-style-type: none"> <li>◆ Control Simulation Robotics by Using Microsoft Visual Programming Language 4</li> <li>◆ -PartI:Basic Concept of VPL</li> </ul>	2	1	Verificat ion	undergrad uate course	Required
<u>3</u>	PartII: Simulation Robotic Programm ing	<ul style="list-style-type: none"> <li>◆ Control Simulation Robotics by Using Microsoft Visual Programming Language 4</li> <li>◆ -PartII: Simulation Robotic Programming</li> </ul>	2	1	Verificat ion	undergrad uate course	Required
<u>4</u>	PartI: Basic Concept of App Inventor	<ul style="list-style-type: none"> <li>◆ App Inventor to create APK(Android)</li> <li>◆ PartI: Basic Concept of App Inventor</li> </ul>	2	1	Verificat ion	Undergrad uate course	Required
<u>5</u>	PartII:Building a Simple App	<ul style="list-style-type: none"> <li>◆ App Inventor to create APK(Android)</li> <li>◆ PartII:Building a Simple App</li> </ul>	2	1	Verificat ion	Undergrad uate course	Required

<u>6</u>	Web pages Design	◆ Using DreamWeaver to building web pages	2	1	Verificat ion	Undergrad uate course	Required
<u>7</u>	Course Design	◆ To finish a course design from six given subject(like word,excel,web pages,flash and photoshop ,ulead studio etc)	2	1	Design	Undergrad uate course	Required
<u>Tot al</u>			14				

### 8. Illustration

Do experiments according to experimental instructions, some experiments require submitting own works.

### 9. Made by Computing Essentials Group

Verified by \_\_\_\_\_

Approved by \_\_\_\_\_

### 10. Time of enactment: 2015-8-31