

# Advanced Diploma of Business Systems

## Course Description

The Advanced Diploma of Business Systems is approximately 10 months full-time\* or 33 months part-time\*. This course has been designed to develop skills in IT business systems design and development and will provide you with the most extensive knowledge base to pursue a career in IT.

## What will I learn?

The skills that you will gain will qualify you for a diverse range of jobs across the IT industry. Providing advanced training in PC technology, the Advanced Diploma in Business Systems takes you from a basic understanding of technology to a thorough understanding of operating systems, networking, e-Commerce, e-Commerce concepts and e-Commerce applications development. You will learn all aspects of the IT business system cycle including the analysis, design, development, implementation and evaluation of systems to increase business efficiencies.

In addition, you will learn to design, create, document and implement computer programs in four languages.

The Advanced Diploma of Business Systems offers skills in networking, systems analysis and database management. This course presents a wide career path that could lead into a multitude of areas including e-Commerce development and design.

## Should I consider this course?

The Advanced Diploma of Business Systems is ideal for those who want to enter the IT industry with the broadest career options. This course is concerned with the application of technology in today's business environment and the potential that e-Commerce possesses. This course will give you a solid base on which to start your new career.

## What do I need to start?

To ascertain whether you qualify for a course at the Computer Power Institute of Technology, you must obtain a satisfactory result on our entrance assessment. Ideally, you will have successfully completed Year 12/UE or Bursary or have work experience behind you. Prospective students must be familiar with computing fundamentals, the internet, email usage, word processing, spreadsheets and Windows Operating Systems in order to commence this course.

## Major Course Goals

Upon completion of this course, students will be able to:

- Complete computing tasks and functions in a number of operating system environments
- Code a well structured solution to a problem in a variety of programming languages
- Configure and administer a local area network
- Use common word processing, spreadsheet, presentation, database and accounting packages
- Analyse client requirements and design, develop, code and evaluate the appropriate business solution
- Demonstrate communication, problem solving, time management, goal setting and planning and customer relations skills

## Career Path

This course can complement your existing skills and qualifications or provide further opportunities in your current role. It can also prepare you for a number of career opportunities including:

### Career Entry

Business Analyst  
e-Commerce Developer  
e-Commerce Programmer  
Programmer  
Web Developer  
Business System Developer  
Database Administrator  
Systems Support

### Future Opportunities

e-Commerce Specialist  
Webmaster  
Analyst Programmer  
Systems Analyst  
Contract Manager  
Database Manager  
IT Manager

\*Based on:

Full-time study load of 5 shifts per week of approximately 5 hours per shift. Part-time study load of 2 shifts per week of approximately 4 hours per shift. Study schedules can also be tailored to meet your needs.

\*International students must have an appropriate International Student Visa and must be studying full-time with another education provider in order to study this course part-time.



**Computer Power**  
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## Major Course Topics

### INTRODUCTION

- Orientation
- Introduction to Computer Power

### OPERATING SYSTEMS

- Introduction to Linux

### NETWORKS

- Networking Fundamentals
- Data Communication Fundamentals

### MICROSOFT SOFTWARE APPLICATIONS

- Operate a Database Application
- Access, retrieve, manipulate, import and export data between Microsoft software applications

### DESIGN AND BUILD A DATABASE

- Database management
- Elements of a database management system
- Databases administration, data warehousing

### ACCOUNTING FUNDAMENTALS

- Introduction to accounting and management accounting
- The balance sheet & profit and loss statement
- Analysis and interpretation of financial statements

### ELECTRONIC ACCOUNTING CONCEPTS

- Setting up MYOB-receivables, payables, inventory and sales
- Produce reports to manage a business

### STRUCTURED PROGRAMMING

- Principles of structured programming techniques
- Designing algorithms and coding of the C language
- User defined data types, procedures and functions, single dimension arrays and basic data validation

### INTRODUCTION TO COBOL

- Language structure and program layout
- Coding the various divisions
- Programming style

### EVENT DRIVEN PROGRAMMING CONCEPTS

- Create windows forms, manipulate Visual Basic controls
- Write event driven programs
- Create procedures and functions

### OBJECT-ORIENTED PROGRAMMING CONCEPTS

- Introduction to object-oriented principles
- Introduction to Java
- Fundamentals of Java

### CONCEPTS OF e-COMMERCE

- Types, benefits and functions of e-Commerce
- Impacts and issues of e-Commerce
- Electronic banking and the business environment

### e-COMMERCE APPLICATION DEVELOPMENT

- Develop an e-Commerce enabled web site
- Create a complete electronic customer ordering pipeline
- Implement buyer information extraction functions

### PROGRAM DESIGN AND MAINTENANCE METHODS

- Analyse impact of integration factors on systems design
- Design client interface
- Test, debug and document programming code

### SYSTEMS DEVELOPMENT PRACTICES

- Determine client business expectations and manage the scope, cost and quality control
- Develop the detailed technical design blueprint
- Design and manage project life cycle

### INFORMATION SYSTEMS ANALYSIS

- Detailed investigation and project analysis
- System design and development
- System life cycle methodologies
- System development tools

### GROUP DEVELOPMENT PROJECT

- IT business strategy development
- Manage, guide and apply project integration and quality management techniques
- Project life cycle design

## PROFESSIONAL DEVELOPMENT PROGRAM

- Goal setting and planning
- Time and personal resource management
- Communication skills, decision making
- Telephone and written communication skills
- Customer service

## EMPLOYMENT PREPARATION AND PLANNING

- Surveying the job market
- Matching skills with employer needs
- Interview techniques

## Electives

Students will choose to major in one of the following electives:

### 1) STRUCTURED COBOL

- Control logic and arithmetic expressions
- Inter-program communication, index files, table handling
- Evaluation statements
- String handling and the sorting of data

OR

### 2) C PROGRAMMING

- C functions, arrays and pointers
- C structures and files

OR

### 3) JAVA PROGRAMMING

- GUI applications using swing classes
- Event programming
- Creating applets
- Programming threads

OR

### 4) VISUAL BASIC AND ACCESS PROGRAMMING

- Arrays, formatting, menu creation and database access
- Windows API and Active X and multiple form applications
- Access Basic procedures

OR

### 5) i-NET+ CERTIFICATION STREAM

- CompTIA i-Net+ Certification
- Script Development for the Web
- Setting up a Web Server

## NOMINAL CONTACT HOURS: 1070

### ADDITIONAL MODULES TO CONSIDER

- PC Advanced
- Microsoft Certified Professional (MCP) Certification
- Office Macros and Templates



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