



A.B.N. 20 055 388 988  
www.visionfix.com.au

## Vision Fix Software & Support Pty. Ltd.

9c High Street, Charlton, Victoria 3525  
Mail to P.O. Box 185, Wedderburn, Victoria 3518  
Telephone 03 5491 2009  
Registered **TAFE** Training Organisation Number 6872  
Centrelink Institution Reference Number 3P286

Thank you for your enquiry regarding our correspondence course “Learn to Repair, Upgrade, Build and Network Personal Computers”.

This course is open to all persons, but a proficiency in the English Language is desirable. It is suitable for both hobbyists and those looking to obtain a career in I.T. hardware support as a repair technician, or in computer sales.

The correspondence course consists of sixteen lessons, each lesson provides a course manual of approximately seventy pages, followed by a twenty question assignment.

These course manuals are updated every week to provide you with the very latest information. Manuals are only printed as required - we do not keep stocks of outdated course material.

Students that obtain an average mark of eighty percent over all sixteen assignments will receive an accredited certificate, issued by the Victorian Registration and Qualifications Authority.

This certificate is in the form of a Statement of Attainment in the following eight units from the Information Technology Training Package :-

- ICAS2014B - Connect Hardware Peripherals**
- ICAI3021B - Connect Internal Hardware Components**
- ICAS3115B - Maintain Equipment & Software in Working Order**
- ICAU2007B - Maintain Equipment and Consumables**
- ICAI4029C - Install Network Hardware to a Network**
- ICAS3121B - Administer Network Peripherals**
- ICAS5122C - Identify and resolve network problems**
- ICAS1193B - Connect a workstation to the Internet**

This means that if ever you decide to go on with further studies in Information Technology, you may apply for recognition of prior learning (RPL) for one or more of the above units. The certificate bears the "Nationally Recognised" logo, meaning that it is recognised within all states in Australia and Commonwealth countries.

### Course Cost

The cost for the correspondence course is \$425 payable in three instalments (*or \$400 if the fee is paid in one instalment*) :-

- \$225 upon enrolment
- \$100 on submission of lesson number 6
- \$100 on submission of lesson 11

This fee includes all sixteen manuals, a licenced copy of either Microsoft Windows XP Professional, Microsoft Windows Vista Business, or Microsoft Windows 7 Professional, and the nationally recognised certificate.

Fees can be paid by returning the enclosed enrolment form and faxing or posting along with payment, or you can enrol over the telephone via credit card (Visa, Mastercard, or Amex).

Note that at any stage if you decide not to continue with the course, no further payments are required.

## **How the course works**

The following points give you information on the course structure :-

- Upon enrolment you will receive lessons 1 to 5 of the course manuals, and the operating system disk.
- Your assignments can be sent via email, or can be faxed or posted.
- There is no time limit for each lesson - you work at your own pace. We will continue to maintain your enrolment until you finish the course.
- Once you have submitted lesson number three, we will then send you lesson books 6 to 10 so that you never run out of lessons to work on.
- In the front of the lesson six manual, you will find the invoice for the second payment, but this is not payable until you actually submit lesson six.
- Once you submit lesson seven, we will send you lesson books 11 to 16 and again you will find an invoice for the final payment in the front of book eleven. This invoice is not payable until you submit lesson number eleven.
- On completion of lesson number 8, you will have the option to complete the first of a two part practical work assignment. This must be completed in order to be eligible for the accredited certificate.
- On completion of lesson number 16, you will have the option to complete the second of the two part practical work assignment. This must be completed in order to be eligible for the accredited certificate.
- On successful completion of all lessons, we will then send your certificate within seven days. Students that completed the practical assignments will receive the accredited certificate, and student that did not complete the practical work will receive the Vision Fix certificate.
- Students who failed to achieve the pass mark may re-submit an assignment without extra cost.
- All assignments are assessed and returned within 48 hours.
- Students may ring the instructor at any time for advice if required, and are eligible to receive ongoing telephone support even after completion of the course. There is no time limit for this support service.

# Course Syllabus

- **Lesson 1 - Bits, Bytes, The Microprocessor, Bus Structures**

This lesson explains the following:

- The concept of the binary numbering system
- The terms Bits and bytes
- The entire microprocessor family from the 8088 up to the latest processors on the market today
- The motherboard bus structures including the processor bus (front side bus), PCI and PCI-Express

- **Lesson 2 - Random Access Memory (RAM), Read Only Memory (ROM), The Motherboard**

This lesson covers the following aspects:

- Random Access Memory (RAM)
- Read Only Memory (ROM)
- The BIOS
- Detailed descriptions of all motherboards up to the latest boards available

- **Lesson 3 - Troubleshooting and Repairing the Motherboard**

Fault diagnosis and step by step troubleshooting procedures are covered in this lesson, with over twenty common motherboard problems documented.

- **Lesson 4 - Upgrading the Motherboard**

All of the upgrading issues are covered including:

- Compatibility of components
- Photographs to help along the way
- Adding extra memory
- Replacing a motherboard
- Upgrading a microprocessor

- **Lesson 5 - Floppy Drives and Hard Drives**

This lesson introduces the theory of:

- Floppy Disk Drives
- Hard Disk Drives
- Data Storage and management



- **Lesson 6 - Disk Drive Adaptors, Other types of Storage Media and Troubleshooting disk drives**

This lesson covers:

- Drive Adaptors (i.e. IDE, ATA, SCSI, and SATA)
- Other types of data storage media such as:
  - External USB Drives
  - Hybrid and solid state drives
  - Removable Drive Cradles
  - USB Thumb Drives
- Troubleshooting with over twenty common disk drive related problems documented

- **Lesson 7 - Upgrading and Installing Disk Drives**

This lesson demonstrates how to install and upgrade both hard and floppy drives and includes detailed information about partitioning and formatting the drive for all versions of Microsoft Windows. It also covers issues such as placing two hard drives into the same computer.

- **Lesson 8 - The CMOS settings, "Building your own Computer" Part 1**

Every entry on each of the CMOS screens is discussed including:

- Detailed descriptions of each setting
- How to optimise each setting

This lesson also includes part one of "Building your own Computer", which discusses the details of buying all of the required parts.

- **Lesson 9 - Communication Devices**

This lesson offers an in depth look at communication devices such as:

- Parallel and Serial ports
- USB 1.1 and 2.0 and Firewire
- Printers and basic printer maintenance
- Data switches
- Bluetooth Devices
- Keyboards
- Mice and trackballs



- **Lesson 10 - Modems, Direct Cable Connection and Troubleshooting and Peripheral Devices**

This lesson examines the following:

- Modems (56K, ADSL and cable)
- Bar Code Scanners
- Troubleshooting peripheral devices with over twenty common problems documented
- I.P. Addresses and how to set them

- **Lesson 11 - Installing a modem, High speed serial card and "Building your own Computer" Parts 2 & 3**

This lesson will cover the issues of installing a 56K, ADSL and cable modem. Parts two and three of "Building your own computer" are also included and cover:

- Setting up the motherboard and installing it into the case
- Installing and setting up the disk drives

- **Lesson 12 - Video cards, Monitors and multimedia devices**

This lesson gives a non technical insight into how an LCD and CRT monitor produces the screen image as well as how a video card works, including the 8x AGP port, the 16 x PCI-X bus and SLI. The sound card is then looked at along with the CD player, CDR/RW, DVD drives, Video capture cards, scanners, digital cameras and uninterruptible power supplies. KVM switches, video splitters and data projectors are also covered.

- **Lesson 13 - Troubleshooting Peripheral Devices, Installing CD devices, Setting up your own computer business, Windows problems, "Building your own Computer" Part 4**

This lesson covers:

- Troubleshooting peripheral devices - over twenty common problems are discussed.
- Installing a DVD/CD writer.
- The steps required to establish a computer repair business including information such as:
  - Registering a business
  - Advertising
  - Tools and equipment
- Common Windows problems
- Part four of "Building your own Computer" includes installing and setting up of additional devices and testing the finished product.

- **Lesson 14 - Networking Part 1**

This lesson covers:

- Network basics
- A brief look at Token ring
- The Ethernet system:
  - CSMA/CD
  - MAC addresses
  - Network cables - Thin Ethernet, thick Ethernet, CAT5, CAT5e, CAT6
- The difference between pier to pier and client/server networks
- The difference between Windows XP, Vista, and Windows 7
- Putting a network together
- Hubs, switches and routers
- Installing a network with Windows XP - sharing files - mapping to a drive
- Setting up a network printer - via a computer port, via a switch and via a print server

- **Lesson 15 - Networking Part 2**

This lesson covers:

- Sharing and Internet Connection with both a 56K and an ADSL modem.
- Setting up a network using Windows 98
  - Connecting the computers together
  - Sharing files and Printers
  - Connecting to a 56K or ADSL/Cable modem
- Network security and the Internet:
- Administering and maintaining a network
  - Placement of network equipment
  - Naming conventions for workstations
  - A close look at client/server versus pier to pier
  - Hardware Maintenance
  - The Site Map
  - Maintenance Schedules
  - Backing up Network data
- Troubleshooting and repairing network problems
- An in depth look at TCP/IP
  - Classes of IP addresses
  - The subnet mask
  - DHCP and static IP addresses
  - The default gateway
  - The Domain Name System (DNS)
  - Automatic Private IP Addresses (APIPA)
  - MAC addresses
  - Sockets and Ports

- **Lesson 16 - Networking Part 3**

This lesson covers:

- The seven layer OSI model
- Network Reports and Documentation
- Installing a PCI Ethernet card
- Making a CAT 5e cable
- Installing an RJ45 Wall Point
- Installing a Wireless Network
  - Wireless network security
  - 802.11a, 802.11b, 802.11g and 802.11 super G explained
  - CSMA/CA
  - Different types of wireless adaptors - PCI, PC-card, USB, WAP
  - Installing a wireless adaptor via Windows
  - Ethernet over Power (EoP) adaptors
  - Configuring a bridge connection
- Miscellaneous Network Commands
- Installing a removable hard disk cradle

Please note that in order to be able to carry out the practical work, you will need access to a working computer that you can open up, and two computers to carry out the networking tasks.

At the end of each lesson there are some practical exercises for you to try.



For any further information, please call me on (03) 9841 7077 or email to [info@visionfix.com.au](mailto:info@visionfix.com.au).

Regards

Alan Mulraney

## **General Enrolment Informational**

### **Course participation**

Material is studied at the students premises via correspondence, and there is no time limit for the submission of each lesson.

Course assignments must be submitted in a legible format, and if emailed, must be submitted either in Microsoft Word, or typed directly into the body of the email.

Students that do not contact Vision Fix for a period of one year will be deemed to have abandoned the course.

### **Support Services**

At any stage during the course you will be able to contact your instructor, either by email, fax, post, or telephone to ask any questions, or discuss any problems that you may be having with the course material.

### **Students with special needs – access and equity**

If you have any handicaps or disabilities please talk to us and we will endeavor to ensure that your needs are catered for.

Vision Fix has a code of practice that includes an access and equity policy. This document is available on request. It is the responsibility of all staff to ensure the requirements of the access and equity policy are met by the organisation at all times.

### **Language, Literacy or Numeracy problems**

Please note that this course is only available in the English language.

If you have a problem with language or literacy, please talk to us prior to course commencement so that we can suggest a course of action.

Note that there are virtually no requirements for mathematical skills in this course.

### **Welfare and guidance services**

This course is Centrelink approved for the Pensioner Education Supplement (PES), which covers those that are of working age, but are not able to do so due to health problems.

Please contact your local Centrelink office or your job network agency for details as regards eligibility and level of assistance.

## **Recognition of Prior Learning**

Students who believe they already have the competencies in the course may apply for Recognition of Prior Learning (RPL). An application for RPL may only be made after enrolment and payment of fees and must be made using the application form that can be obtained from Vision Fix Software & Support Pty Ltd.

## **Assessment Appeals and other Grievances**

Although Vision Fix has never had any issues relative to assessment disputes or complaints since the course was first run in 1995, the Australian Qualifications Authority standards require that we advise of procedures for the student to adopt if such a problem should occur.

In the first instance, the student should discuss the matter with the course instructor, which in most cases should resolve the problem.

If this fails, then a written complaint should be lodged to the Director, Vision Fix Software & Support Pty Ltd who will then take immediate steps to resolve the problem.

If this still does not resolve the problem then an independent arbitrator will be appointed to make a final decision, which will be provided in writing to both parties.

## **Relevant Legislation**

A range of legislation is applicable to Vision Fix and all staff and students. Information on relevant legislation can be found as follows.

**Occupational Health & Safety** – [www.business.channel.vic.gov.au](http://www.business.channel.vic.gov.au)

**Equal opportunity** : - [www.eoc.vic.gov.au](http://www.eoc.vic.gov.au)

**Vocational Education & Training** :- [www.otte.vic.gov.au](http://www.otte.vic.gov.au)

**Workcover** :- [www.workcover.vic.gov.au](http://www.workcover.vic.gov.au)

**Privacy** :- [www.privacy.gov.au](http://www.privacy.gov.au)

It is the responsibility of all staff to ensure the requirements of relevant legislation are met by Vision Fix at all times. Please use the web sites indicated or contact the training manager if you require further information.

## **Privacy**

Personal Information is collected solely for the purpose of operating as a Registered Training Organisation under the Australian Quality Training Framework administered by the Victorian Government who are the registering authority. The requirements of the registering authority may require the release of your personal information for the purposes of audit.

Under the National Privacy Principles you can access personal information held on you, and you may request corrections to information that is incorrect or out of date.

The following courses contain units that are covered in the “ Learn to Repair, Upgrade and Build Personal Computers” course :-

**Certificate I in Information Technology - E-Consumer**

*ICAITS014C - Connect Hardware Peripherals*

*ICAITS193A - Connect a Workstation to the Internet*

**Certificate II in Information Technology - Applications**

*ICAITS014C - Connect Hardware Peripherals*

*ICAITU007B - Maintain Equipment and Consumables*

**Certificate III in Information Technology - General**

*ICAITS021C - Connect Internal Hardware Components*

*ICAITS115B - Maintain Equipment and Software in Working Order*

**Certificate III in Information Technology - Network Administration**

*ICAITS121A - Administer Network peripherals*

**Certificate III in Information Technology - Client Support**

*ICAITS121A - Administer Network peripherals*

**Certificate IV in Information Technology**

*ICAITS014C - Connect Hardware Peripherals*

*ICAITS021C - Connect Internal Hardware Components*

**Certificate IV in Information Technology - Database Administration**

*ICAITS115B - Maintain Equipment and Software in Working Order*

*ICAITS121A - Administer Network Peripherals*

**Certificate IV in Information Technology - Helpdesk**

*ICAITS014C - Connect Hardware Peripherals*

*ICAITU007B - Maintain Equipment and Consumables*

*ICAITS029B - Install Network Hardware to a Network*

**Certificate IV in Information Technology - Network Management**

*ICAITS029B - Install Network Hardware to a Network*

**Certificate IV in Information Technology - Programming**

*ICAITS021C - Connect Internal Hardware Components*

*ICAITS115B - Maintain Equipment and Software in Working Order*

**Certificate IV in Information Technology - Technical Support**

*ICAITS021C - Connect Internal Hardware Components*

*ICAITS115B - Maintain Equipment and Software in Working Order*



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**Correspondence Course Enrolment Form**  
**Learn to Repair, Upgrade, Build and Network Personal Computers**  
**Comprising eight units from the Information Technology Training Package**

Victorian Student Number <b>Only for students under 25 years old</b> N = I don't yet have one ? = I have one but can't remember it		
Student Name		Sex (M/F)
Date of Birth		
Delivery Address		
Telephone	Home :	Mobile :
Email Address		
How did you hear about the course?		
Type of Credit Card	Mastercard <input type="checkbox"/> Visa <input type="checkbox"/> Amex <input type="checkbox"/>	
Credit Card Number		
Name on Card		
Expiry Date		
Windows Disk (please tick the one that you require)	Windows XP Pro <input type="checkbox"/> Windows Vista Bus <input type="checkbox"/> Windows 7 Pro (32 bit) <input type="checkbox"/> Windows 7 Pro (64 bit) <input type="checkbox"/>	

**Please indicate the amount that you wish to pay :-**

**I wish to pay the first instalment of \$225**

**I wish to pay the full course fee of \$400**   
( \$425 less a \$25 discount for full payment of course fee)

Cheques and money orders should be made payable to Vision Fix Software & Support  
Please allow up to five working days for delivery by parcel post.