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#### Narrabundah College



**Course : Information Technology**

**Unit Title : ITP Program and Design Concepts T/V**

**Study in this unit can contribute towards:**

* **ICA10105 Certificate I in Information Technology.**
* **ICA20105 Certificate II in Information Technology.**

**SESSION: 2** **YEAR: 2010 1.0 Standard Unit**

### Class: 419\_2 Teacher: Greg Clarke

**Consumables levy:** **$20**

SPECIFIC UNIT GOALS

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| --- | --- |
| This A unit should enable students to: | This T unit should enable students to: |
| * identify structural features of analysis methods and algorithms | * apply analysis methods and descriptive algorithms to solve simple and complex problems |
| * apply basic analysis methods and descriptive algorithms to solve simple problems | * develop simple and complex algorithms using at least two methods |
| * develop basic algorithms using a specified method and use error checking methods s | * use common syntax features and simple data types to write structured programs |
| * use simple syntax features and simple data types to write structured programs | * use constructs of sequence, selection and iteration to solve simple and complex programming problems |
| * use constructs of sequence, selection and iteration to solve simple programming problems | * demonstrate the use of complex Boolean expressions in programming solutions |
| * demonstrate the use of Boolean expressions in programming solutions | * design and code programs using nested loops |
| * design and code programs using nested loops | * use variables, constants and simple I/O operations in programs |
| * use variables, constants and simple I/O operations in programs | * use a development environment to create, retrieve, modify, save and execute a program |
| * use a development environment to create, retrieve, modify, save and execute a program | * apply the rules and practices of good intrinsic, internal and external documentation |
| * apply the rules and practices of good internal and external documentation | * work cooperatively to solve problems * create user documentation. |
| * work cooperatively to solve problems * create user documentation. |  |

Unit Content

**This is a guide to the units of competence that may be assessed concurrently with this unit.**

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| --- | --- | --- | --- |
| **Unit code** | **Unit of competence** | **C / E / F** | **Comp Assessment** |
| BSBCMN106B | Follow workplace safety procedures | Core | O – Voc Placement |
| ICAD2012B | Design organisational documents using computer packages | Core | P |
| ICAD3218B | Create user documentation | Elective | P |
| ICAU1128B | Operate a personal computer | Elective | OBS |
| ICAW2011B | Work individually or as a team member to achieve organisational goals | Elective | P, PA |

**Competency Assessment Method ;** P-Project; PF-Portfolio; PD-Practical Demonstration; PA-Practical Activity; KBA-Knowledge Based Assessment; OBS-Observation; O Other (specified)

Assessment Items

|  |  |  |
| --- | --- | --- |
| **Item** | **Weighting** | Due |
| Flash Game Program Individual Assignment | 20% | Week 8 |
| Flash Game Program Group Assignment | 40% | Week 16 |
| Flash Game Program Practical Test | 40% | Week 17 |

Each unit is comprised of competencies. Assessment tasks may assess outcomes from more than one competency and assessment and reporting may be of the following format:

* On- and Off-the-job assessment will be competency based, in that the student will be required to demonstrate competency in each of a range of tasks measured against specified criteria.
* The Student Record Book will record the competence achieved, an assessment coding of Competent (C) and Not Yet Competent (NYC) will be used. Students will have the opportunity for re-testing if deemed ‘Not Yet Competent’. Students may apply for 2 re-tests.
* Completed semester units of the course will be reported on the Year 12 Certificate using A-E grades according to the current system grade descriptors which are displayed on the chart located on the back of the classroom door. Ask your teacher if you would like a copy.

Assessment Policy

**ATTENDANCE**

Students are expected to attend all scheduled classes. Any student whose attendance **falls below** **90%** of the scheduled classes in this unit will be **deemed to have voided the unit** (v grade) unless satisfactory documentation is provided. It is a student’s responsibility to catch up on missed work, when absent from a class

**COMPLETION OF ASSESSMENT**

Students are required to complete and submit all assessment items unless due cause and adequate documentary evidence is provided (eg medical certificate). Any student who fails to submit assessment tasks worth in total 70% or more in this unit will be deemed to have voided the unit.

Students who are unable to attend college for assessment items such as tests must inform the teacher as soon as possible and provide appropriate evidence of the problem (medical certificate).

**LATE SUBMISSION OF WORK**

Students are encouraged to submit work on time, as this is a valuable organisational skill. Students are also encouraged to complete work even if it is late as there are educational benefits in doing so. The purpose of the policy is to ensure equity for all students.

1. Except in exceptional circumstances, students must apply for an extension in advance, providing due cause and adequate documentary evidence for late submission.

2. a) Calculation of a notional zero in T units is based on items submitted on time or with an approved extension (i.e. a genuine score).

b) A late penalty will apply unless an extension is granted. The penalty for late submission is 5% (of possible marks) per calendar day late (including weekends and public holidays) until the notional zero, calculated in (a), is reached. If an item is more than 7 days late, it receives the notional zero. Submission on weekends or public holidays is not acceptable.

3. The Principal has the right to exercise discretion in the application of the late penalty in special circumstances with satisfactory documentation.

4. It may not be possible to grade or score work submitted late after marked work in a unit has been returned to other students.

**CHEATING /PLAGIARISM**

The integrity of the Collegeassessment system relies on all involved acting in accordance with the highest standards of honesty and fairness. Where a student has been deemed to have cheated, copied or plagiarised in an assessment item or tampered with student assessment data, the following penalties may apply:

* cancellation of the assessment item result;
* cancellation of the unit result;
* cancellation of the course result.

**APPEALS PROCEDURES**

Copies of assessment and appeals procedures are available in each classroom and from your teacher. When assessment items are returned, students should check the marks thoroughly. If a student has a query about some aspect of the marking, they should discuss it with their class teacher. If the student is still not satisfied, they should then discuss the matter with the Executive Teacher. For further details please refer to the college handbook.

**MODERATION PROCEDURES**

**a. Internal**

Assessment items in this unit are prepared in consultation with all staff teaching across the scaling group, where the appropriate task types, the weightings and required standards of work are decided. Once submitted and marked by the class teacher, each assessment task is moderated across the scaling group to ensure comparable measurement of performance. This moderation process occurs throughout the unit.

**b. External**

To ensure comparability of standards across the ACT system, the Board of Senior Secondary Studies (BSSS) requires colleges to undertake system-wide review and moderation of curriculum, assessment practices and unit grades awarded. The moderation of curriculum is through course accreditation. The system moderation of grades is by structured, consensus-based peer review. All college teachers meet twice a year to review sample portfolios of student work that have been assessed and graded against the criteria and standards set out in subject Course Frameworks.

The statistical moderation of course scores is achieved through the administration of the ACT Scaling Test (AST) in September of each year to all Year 12 students seeking a UAI. The AST comprises multiple choice, short answer and writing tests and facilitates the comparison of T course groups across the ACT, both within and among colleges.

###### UNIT SCORE CALCULATION

Raw unit scores are determined by aggregating the individual assessment task scores according to the given weightings. In unit 1 Year 11, these raw scores are standardised to parameters based on historical data. All subsequent raw unit scores are backscaled to the previous standardised unit scores, using only students who are common to both units. The best 80% of unit scores are used to calculate the student’s course score at the end of year 12.

**METHOD OF UNIT SCORE CALCULATION**

SYSTEM MODERATION

Your assessment work for each unit will be required for system moderation and will be kept each session by your teacher.

**RECOGNITION OF CURRENT COMPETENCE (RCC):**

Students who believe that they can satisfy the requirements for the industry competencies contained in this unit may apply for RCC. To qualify you must demonstrate competence through providing evidence against the assessment criteria for each individual competency listed above. See your teacher for more details.

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| **Week** | **Topics Covered**  **Order may vary** | **Assessment Items**  **Notes** |
| **Week 1**  **(26 – 30 Apr)** | Getting to know the Flash CS3 Interface  Using Actionscript–interacting with objects  Creating basic motion, scrolling, rebounding, controlling movieclip properties – alpha, rotation, width etc…, Basic Shortcuts – f6,f7,f8,f9 | Anzac Day 26 Apr |
| **Week 2**  **(3 – 7 May)** | Timeline programming, use of keyboard, buttons, use of random, drag able objects , use of IF statements, use of onPress, onEnterFrame standard functions, setInterval command, gotoAndPlay, | Information Morning  May 6 |
| **Week 3**  (10 – 14 May) | Programming sound, basic OOP, creating your own functions, uploading flash to the web, creating multiple sprites, the roll of randomization in games |  |
| **Week 4**  (17 – 21 May) | For and while statements, Boolean variables, documentation, programming sound, movieclips within movieclips |  |
| **Week 5**  (24 May – 28 May) | Collision detection, introducing concepts of speed and acceleration. |  |
| **Week 6**  (31 May – 4 June) | Studying more complex games to learn additional programming strategies and methodologies. | Open Day June 1 |
| **Week 7**  (7 – 11 June) | Flash Individual Games Project out |  |
| **Week 8**  (14 – 18 June) | Flash Individual Games Project due | **Queens Birthday**  **Monday 14 June**  Maths/Science tests (Thursday) |
| **Week 9**  (21 – 25 June) | Arrays (one dimensional), Enumerated Data Types, User defined data types, Records, Software Development Methodology | Maths/Science tests  (Monday) |
| **Week 10**  (28 June – 2 July) | Sorting methodologies, Modular programming techniques, use of Sequential text files, 2 dimensional arrays | **Parent Teacher Afternoon 29 June** |
| **5 July – 16 July** | **School Holidays** |  |
| **Week 11**  (19 – 23 July) | Flash Game Programming Group Project out. |  |
| **Week 12**  (26 – 30 July) | Flash Game programming Project |  |
| **Week 13**  (2 – 6 August) | Flash Game programming Project |  |
| **Week 14**  (9 – 13 August) | Flash Game programming Project | **Moderation Day**  **Thurs 12 August** |
| **Week 15**  (16 – 20 August) | Flash Game Programming Project |  |
| **Week 16**  (23 – 27 August) | Flash Game Programming Group project due |  |
| **Week 17**  (30 Aug - 3 Sept) | Flash Game Programming Practical Test | **Crossline Test Week**  **30 Aug – 3 Sept)** |
| **Week 18**  (6 -10 September) |  | **AST Yr 12 - 7 & 8 Sep**  **Assessment Week**  **Work Exp Yr 11**  **Feedback Day 10 Sep** |