Diploma in Computing

Level 7

2018

ICL Graduate Business School Programmes

ICL Graduate Business School offers a wide range of Business, Computing, Early Childhood Education and English programmes, up to level 9 on the New Zealand Qualifications Framework. The following programmes are available at ICL Graduate Business School:

Level	Programme
Level 9	Master of Business Informatics
Level 8	Postgraduate Diploma in Business
	Postgraduate Diploma in Business Informatics
Level 7	Graduate Diploma in Business (International Business Innovation)
	Graduate Diploma in Business (International Hospitality Management)
	Graduate Diploma in Business (International Tourism Management)
	Diploma in Computing
	Diploma in Business Computing
Level 6	New Zealand Diploma in Business
	ICL Diploma in Business
	New Zealand Diploma in Early Childhood Education
Level 5	Diploma in Business
	New Zealand Diploma in Early Childhood Education
Level 4	New Zealand Certificate in English Language

Management

Chairman	
Ewen Mackenzie-Bowie	BA (Hons), Stirling; MA, Surrey; RSA Dip TEFL, Edinburgh; ITTI Cert TEFL, Hastings; FRGS, London, MInst D
Principal	
Wayne Dyer	BA, Massey; M Applied Linguistics, Macquarie; Dip TEFL, Cambridge; RSA Cert TEFL
Academic Director	
Dr Jocelyn Williams	BA, Massey; PGDipBusAdmin, Massey; MMgt (Distinction), Massey; PhD, Massey; DipTchng, Auckland College of Education (now University of Auckland)
Pathways Director	
Brent Hawkins	BCom, Auckland; PGDipBusAdmin, Massey; MMgt, Massey; TTC, Waikato University – Hamilton Teachers' College
Research Professor	
Dr Michèle Akoorie	BA, Auckland; MBA (Distinction), Cass Business School, London; PhD, Waikato
Programme Coordinator	
Craig Rhodes	BHSci (Comp Med), Charles Sturt University, Australia; MMgt (Distinction), Massey

Diploma in Computing Level 7

The aims of the course leading to the Diploma in Computing (Level 7) are to:

• Develop advanced computing skills with specialisation in computer support;

• Develop sufficient practical and theoretical skills in computing to enable students to progress to further studies in a similar field or to enter employment directly; and

• Enable both local and international students to achieve an industry-focused employment qualification.

Graduates of the Diploma in Computing (Level 7) will have attained a job entry qualification with particular strengths in system maintenance and user support. They will also be strongly placed to progress to degree level studies in information technology at a university or polytechnic.

The programme is taught over 48 weeks with starting dates every eight weeks. The last 12 weeks of the programme consist of a work placement.

Paper Number	Paper Name	Credits	Level	Assessment Type	Passing Criteria
5148	Explain ethics and professionalism for the computer industry in New Zealand	7	5	Mid-Course Written Test & Final Exam	At least 50% in the Final Exam & must meet all assessment criteria
5154	Explain local area computer networks and install network workstations	5	5	Mid-Course lab Test & Final Exam	At least 50% in the Final Exam & must meet all assessment criteria
6156	Apply principles of project planning and control	7	6	Assignment (Project Plans & Progress Report)	Must meet all assessment criteria
6113	Explain the management of the information systems function in an organisation	7	6	Assigment (Essay)	Must meet all assessment criteria
6177	Assess and provide technical advice on software for a single-user personal computer	15	6	Assignment (Evaluation & Report)	Must meet all assessment criteria
7150	Assess and provide technical advice on system software for a multi user computer	20	7	Assignment (Evaluation & Report)	Must meet all assessment criteria
7157	Demonstrate an understanding of local and wide area computer networks	10	7	Assignment (Research) & Presentation (Seminar)	Must meet all assessment criteria
7163	Design a local area computer network	20	7	Assignment (Proposal)	Must meet all assessment criteria
7160	Plan and manage a project in the computer field	30	7	Work Based Project	Must meet all assessment criteria
Total Credits		**121**			

Course Delivery

Delivery is described in papers of study culminating in a Project which assesses two major units and incorporates a 12-week work placement. Papers 5154, 6156 and 7163 are of a very practical nature and are designed to re-energize students at the mid-way point and to prepare them for greater personal responsibility in managing a project.

Semi-Trimester 1

5148 Ethics & Professionalism: 7 credits

This paper sets the scene for standards of professionalism in the industry and prepares students for taking responsibility for their learning.

A guest speaker is invited to speak on ethics and professional behaviour. This together with Internet research forms the basis of a written piece of work covering Elements 1 and 2.

Taught topics include New Zealand laws relating to copyright, privacy, health and safety and consumer rights. Skills in needs analysis are developed throughout the course. Case studies are provided of a computer supplier and a user organisation from which students identify the full range of roles and relationships in the industry together with relevant codes of conduct. Presentations are made to other groups. All this leads to the final project in semi-trimesters 5 & 6.

5154 Network Basics: 5 credits

This covers the basic topics in computer networking.

- Components of local area networks;
- LAN configurations and protocols;
- LAN media.

This is a precursor to 7157.

6156 Project Management: 7 credits

This is the initial skills base for the workplace project at the end of the course. Students learn to use Project Management techniques and apply it to a simulated classroom project. It is taught via guided workshop sessions.

Group work

To develop skills in critical assessment, individual/group work is used to:

- Discuss user requirements;
- Draw up a plan to meet user requirements;
- Estimate project time;
- Modify the plan;
- Write progress reports.

All this leads to the final project in semi-trimesters 5 & 6.

Semi-Trimester 2

6113 IS Management: 7 credits

This paper sets the scene for the computer Information Systems (IS) function in an organization. Taught topics include:

- The changing nature of information systems over the past 10 years; the positioning of IS within an organisation and management and user expectations of it;

- Levels of strategic planning and the contribution of IS; surveying organisational information needs; developing an organizational information strategy; information harvesting; project planning and control;

- Consideration of emerging technologies and obsolescence and their management.

6177 Software support for PCs: 15 credits

This paper prepares learners for their roles in needs analysis and liaison with clients, emphasising the need for clear communication to achieve the customer's objectives. It also introduces software engineering. This is a precursor to 7150.

- Structuring interviews and interacting with customers;

- Technical report writing;

- Overview of software engineering;

- Software dependability modelling, fault tolerance;

- Software metrics and quality assurance;

- Setting objectives and critical performance factors;

- Evaluation of assessment strategies and use of templates;

- Small group participation in an assessment, results fed back to class group.

Semi-Trimester 3

7150 Multi user system software: 20 credits

This builds on the skills acquired in paper 6177 and applies them to multi user system software.
It includes:

- Understanding purpose and requirements of a multi user system;
- Identifying stakeholders and requirements and managing conflicts;
- Estimating time required to complete the task;
- Producing a review procedure to monitor progress and cost;
- Determining the major activities and processes within an organization;
- Determining objectives for the system;
- Specifying requirements including configuration, functionality, performance, capacity, reliability;
- Identifying critical performance factors for system software;
- Validating system requirements;
- How to choose tools to resolve problems of configuration, file management and user access;
- Group work on an assessment, results fed back to class group;
- Compilation of report, including constraints and recommendations, (must include reliability, suitability, compatibility and technology status);
- Presentation of report to the client.

7157 Networks: 10 credits

Setting the scene: case studies of the use of networks in business (based on CISCO):

- LAN configurations and protocols and their role in the network;
- Discussion of relative benefits of network topologies and types;
- Node addressing methods and access protocols;
- Industry standard network architectures and installation issues;
- Baseband vs. broadband in a LAN;
- Investigation and report on 2 LANs with different operating systems;
- Packet and circuit switching techniques comparison (implementation, cost, performance, reliability and security);
- Management issues of WANs;
- Case study or work-based project to evaluate a WAN and make recommendations for a network design based on a cost-benefit justification;
- How to choose tools to resolve problems of configuration, file management and user access.

Semi-Trimester 4

7163 Network design: 20 credits

Building on earlier studies into networks, case studies are used to present an existing Local Area Network and a request from a client for new requirements. Students are encouraged to further develop their planning, analytical and critical skills alongside project management skills to provide a design and proposal for such a LAN.

Semi-Trimester 5&6

7160 Plan and manage a project in the computer field: 30 credits

These final two semi-trimesters are devoted to a project which will assess the student's ability to design a Local Area Network. In this paper students are prepared for their work placement. Management issues, time management and behaviour are highlighted. Gantt Project is used as a tool to plan their work placement. Work placement interviews are arranged and the student agrees a project description with the client in consultation with the Tutor. Communication and administrative procedures are put in place. In the last 12 weeks of the paper the students undertake their placement. The project supervisor maintains weekly contact with the student during the work placement.

Manage a project in the computer field

A proposal is produced for the project in consultation with the client and tutor while undertaking a project in the computer field including a review procedure to ensure the outcomes are met. Substantial work is expected during this period towards achieving the project.

Project review

The final stages of the project are completed. The student is also assessed on project planning and control.

Off-site Components

The final 12 weeks of the course action is a research project based in a work placement. In previous papers the student will have learnt the skills to produce a multi-media presentation and to manage a project. The work placement provides the opportunity to put this into practice for a live client within the constraints of a working environment.

The student is fully supported by the project supervisor with at least weekly contact. The project supervisor reviews the ongoing work and ensures momentum towards project completion and achievement of the assessment criteria.

On completion of the project, the students return to ICL for an end of programme event at which each present their work.

Assessment Tools

The points below suggest assessment tools for each paper in the diploma course. This is not a definitive list. The structure is set to assess the final three papers by an integrated project.

Assessments include:

- Written assessments, with the emphasis on reports, presentations and tests;

- Practical demonstrations of computer-related skills: installing computers and peripherals, installing operating and application software, interacting with customers;

- Research assignments about software, operating systems, and networks.

Feedback and Reporting on Student Achievements

Formal assessments receive written feedback and are always followed by oral feedback.

Peer feedback is taught and encouraged in a collegial manner. Where a student is performing below expectations a confidential tutorial is arranged in a non-threatening environment to offer support and to agree a way forward. From this point it is easy to identify at an early stage those students who are progressing slowly. One or more of the following actions is taken:

- The student causing concern is paired with a more able student who provides support and feedback;

- The tutor arranges additional one-to-one remedial sessions;

- For a specific learning problem additional support will be provided;

- The Registrar is alerted in case the student has a personal problem which needs to be resolved (e.g. concerning accommodation or unsatisfactory home study conditions).

Results of assessments are normally notified to students by their tutor within ten days of an assessment being completed. Results are recorded on individual student academic records in a central database and students are given an updated transcript of their academic record from time to time.

Semi-Trimesters

Semi-trimesters 1 and 2 alternate, as do semi-trimesters 3 and 4; so students will normally follow the sequence 1, 2, 3, 4 or 2, 1, 4, 3. Part 1, consisting of semi-trimesters 1 and 2, needs to be completed before Part 2, consisting of semi-trimesters 3 and 4, according to the progression policy.

Progression Policy

To qualify for semi-trimester 3, the student must have passed all papers in semi-trimesters 1 and 2, submitted all assignments and/or attended the mid-term test and final exam as applicable in semi-trimester 1 and 2 on the due date, and completed the preparation course unless cross-credited. To qualify for semi-trimester 5, the student must have passed six papers in the first three semi-trimesters and submitted the other two assignments on the due date.

Duration

Each of the four teaching semi-trimesters runs for eight weeks, including seven weeks of teaching and one self-study week. There is a one-week break between each trimester. Therefore the total duration of the taught course is 34 weeks including two one-week breaks. The last trimester consists of two weeks of preparation followed by the 12-week work placement; total 48 weeks overall.

Course components enable the course to achieve its aims because they:

•   Focus on user support.

•   Enable students to achieve a diploma qualification.

•   Prepare students for further study at degree level at a university or polytechnic.

•   Provide experience in project management.

Length of the Course

48 weeks of full-time study: 30 hours x 48 weeks = 1,380 hours

Each week averages 15 hours of directed and 15 hours of self-directed learning.

Component Levels and Credits

Papers are based on the former unit standards from the NZ Qualifications Framework which makes the levels and credits appropriate. The 121 credits required are achievable in a 48-week full-time course.

Modes of Delivery

Visits are made to local industry and there are external educational lectures. Discussions and writing ensues from these. Face-to-face classroom-based delivery is used for some theoretical topics, but where possible this knowledge is acquired through research assignments, group activities or self-directed learning: all computers have internet access. Wherever possible, experiential techniques are used, followed by consolidation of learning. Workshop sessions are used to develop computing skills prior to application in a project scenario. One-to-one coaching by the tutor is available during these sessions. The programme culminates in a 12-week action research project based on a work placement.

Entry Requirements

- Academic requirements: at least one year of post-secondary study incorporating basic computing study.

- English with IELTS 6.0, with no band less than 5.5, or equivalent in the ICL Proficiency Test*, or other equivalent recognized by NZQA.

*ICL English test IEPT approved by NZQA http://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/programme-approval-and-provider-accreditation/english-international-students/

Course Regulations

Provisions for awarding credit towards a qualification or exemptions from specific course requirements as a result of: cross-crediting; credit transfer; recognition of prior learning.

All relevant credits gained from unit standards achieved through another organisation may be transferred towards the Diploma in Computing (Level 7). Credit transfers from other qualifications will be individually considered when supported by detailed documentation from the other organisation.

To obtain credit transfer the student needs to present a case for the ICL Senior Lecturer to assess. The onus is on the student to demonstrate a match, normally of 80% of content, from a course, paper or module studied to the unit standard for which credit transfer is claimed.

In order to make an assessment the student needs to provide:

• Level of course taken;

• Duration of course taken: number of weeks and hours per week, both contact teaching and self study;

• Content summary of course taken;

• How an 80% match is achieved between the course taken and the unit standard for which credit is requested.

Applications for recognition of prior learning (RPL) are welcomed and will be given early consideration. Decisions on RPL are based on one or more of the following: a portfolio; attestation by an experienced subject or industry expert; references from previous employers or educational organisations.

Course structure, including any specified pre- and co-requisites, compulsory and optional/elective components, practical/work-based components and alternative entry and exit points

There are no specific qualification prerequisites except those detailed in the entry regulations of a more general academic nature.

All course components are compulsory. Most practical work will be completed on-campus and a 12-week work-based component is included in the course.

Alternative entry points are permitted but the programme will always culminate in the Project.

Normal progress through the course and minimum and maximum periods for completion of the course

The normal time to complete the course is 44 weeks of full time. Where credits have been granted this timescale will be pro rata to the exemptions. Students may request an extension for resubmission.

Assessment, including provision for reassessment and appeals
ICL's quality management system details policies and procedures for dealing with assessment.

The DC assessment policy is availbale to students. Students are entitled to one reassessment opportunity during the course period for any non-achieved assessment. A further reassessment opportunity will be given to assignments which are more than 75% satisfactory.

Assessment Policy for DC

This policy document is to update all Diploma of Computing (DC) students on the current polices for assessments and paper progression to complete qualification.

Assessment requirements for all papers are set out below.
Paper number and title:

6156   Apply principles of project planning and control
6177   Assess and provide technical advice on software for single user PC
7150   Assess & provide technical advice on software for multiuser computer
7163   Design a LAN

Assessment requirements for each of the above 4 papers (6156, 6177, 7150 & 7163) are:
Each paper has one assignment for 100%

All students are allowed a maximum of 3 submission attempts to complete the assignment.

Students must submit the assignment assessment on their submission due date as advised by the lecturer. Failure to submit the assessment on the due date automatically means repeating the paper.

Furthermore, students must achieve a mark of at least 80% of the unit standard for the second submission. If the mark is below 80% students do not qualify for the third submission attempt and must repeat the paper.

If any student cannot pass by achieving 100% within the three attempts then the paper has to be repeated. The repeat fee is $1000 per paper.

7157 Demonstrate understanding of Local and wide area networks

Assessment requirements for 7157 are:
This paper has an 80% assignment and a 20% presentation.

All students are allowed a maximum of 3 submission attempts to complete the assignment but only 2 attempts for the presentation.

Students must submit the assessment on the submission due date as advised by the lecturer. Failure to submit the assessment on the due date automatically means repeating the paper.

Furthermore, students must achieve a mark of at least 80% of the marks for the second submission. If the mark is below 80% students do not qualify for the third submission attempt and must repeat the paper.

If any student cannot pass by achieving 100% within the submission attempts, stated above, the paper must to be repeated at next delivery. The repeat fee is $1000 per paper.

5154 Explain LAN and install networks

Assessment requirements for 5154 are:

This paper has a 20% practical and an 80% exam. Students are allowed 2 submission attempts to pass the practical and 3 attempts to pass the exam.

There is no fee payable for the second attempt at the exam or the practical. But, for the 3rd attempt at the exam or practical a re-sit fee of $250 is payable. If the student fails they repeat the paper at next delivery. The repeat fee is $1000 per paper.

NOTE: Students need to get an 50% overall to pass the paper but must get 100% for the practical - 20/20marks)

5148 Ethics for IT

Assessment requirements for 5148 are:

This paper has a test of 40% and a final exam 60%. Students are allowed 3 submission attempts to pass the paper.

No fee is payable for the second attempt of either the test or the final exam. But, for the 3rd attempt of the test or the final exam; a re-sit fee of $250 is payable.

If the student fails this they repeat the paper at next delivery. The repeat fee is $1000 per paper.

NOTE: Students need to get 50% overall to pass the paper. The DC administration team will decide on whether the student should attempt the test or the final examination in their 2nd or 3rd submission attempt.

6113 Explain management of IS function in an organisation

Assessment requirements for 6113 are:

This paper has an assignment 40% and either an assignment for 60% or a final exam 60%. The lecturer will advise at the commencement of the paper as to whether it is an assignment or a final exam. Students are allowed 3 attempts to pass the paper.

No fee is payable for the second attempt of either the assignment or the final exam. But, for the 3rd attempt of the assignment or the final exam; a re-sit fee of $250 is payable.

If the student fails this they repeat the paper at next delivery. The repeat fee is $1000 per paper.

NOTE: Students need to get 50% overall to pass the paper. The DC administration team will decide on whether the student should attempt the assignment or the final examination in their 2nd or 3rd submission attempt.

7160 Plan and manage a project in the computer field – (Work placement)

Assessment requirements for 7160 are:

Students must attend two weeks of classes for 4 hours x 2 weeks to receive the assessment, understand what is required plus critically ensure they understand the cultural and practical aspects of working in the NZ work place position as a work placement student for ICL.

Each student is then allocated a work place supervisor who will ensure each student is attending the workplace 20hrs per week for 12 weeks = 240hrs. The 240 work place hours must be completed to pass the paper.

Students must submit a progress report each week for the 12 weeks and meet the lecturer once every 2 weeks. Reports must be submitted to the student work place supervisor by Tuesday 10am of the week following the work placement 20 hr week or a disciplinary warning will be given.

If a student misses a weekly report for two consecutive weeks they will be withdrawn. After 3 warnings a student will be withdrawn from the paper – Immigration New Zealand will be informed.

A student can also be withdrawn from a work placement is there are complaints from the work place supervisor or no progress has been made to completion of the hours or the assessment requirements. To complete this paper students must submit a report and do a presentation to pass (achieve 100%).

Students are allowed 2 submission attempts to pass the report and presentation. No extra fee is payable for the 2 submissions. However, if a student fails the paper they repeat at next delivery. The repeat fee is $1000 per paper.

A "fail" happens when the following situations occur:
- Poor review from work placement supervisor
- Incomplete hours – did not do the total 240 hours
- Failing to complete the oral or written report requirements
- Other situation where the student has not achieved the standards required.

Note: If the student applies for revision class it is included in the $250 fee per paper. The revision class will be for 60 minutes.

Reassessment and appeals

Students will have a right to appeal achievement decisions within 14 days of receiving their provisional results or marked assessments. The appeal must be in writing and signed by the student.

Provision for dealing with instances of impaired performance (e.g. aegrotat passes)

If a student cannot complete an assessment because of illness, accident or bereavement, an aegrotat pass may be awarded. Applications for aegrotat passes are considered in cases where a student has a record of consistently good course work and where an application for such a pass is made within ten days of an impaired performance. An aegrotat pass may apply to a single assessment or to a complete course component unit standard(s) where that assessment is a major or final assessment event.

Requirements for the award of the qualification

The Diploma in Computing (Level 7) will be awarded to students who:

- Complete all assignments and assessments to the required standard.
- Meet all the requirements listed above.
- Accumulate the required 121 credits.

Diploma in Business Computing – Level 7

Two-year programme

The Diploma in Business Computing is an industry-focused qualification that aims to provide graduates with advanced computing skills with specialisation in computer support, based on a practical grounding in business and management practice.

- The first year is the NZIM Diploma in Management, which provides a thorough grounding in business, organisation and management, computing, and communication practice.
- The second year is the Diploma in Computing (Level 7), which teaches advanced computing skills with specialisation in IT support, and develops in students practical and theoretical skills in computing to enable them to progress to further studies in a similar field or to enter employment directly.
- Total duration of the programme – 85 weeks (including holidays).

Successful completion of the two-year Diploma in Business Computing programme leads to the award of three qualifications:

- NZIM Diploma in Management Level 5 (Year 1)
- Diploma in Computing Level 7 (Year 2)
- Diploma in Business Computing Level 7 (after both years)

Course Structure
Year 1

Core Papers (from NZIM Diploma in Management Level 5	**Plus optional NZDipBus papers from the following, if 469 and/or 550 are not required:**
469 Academic Skills for Business Studies (only compulsory for students admitted through provisional entry)	430 Statistics and Financial Mathmatics for Business
	469 Academic Skills for Business Studies
	500 Accounting Principles
530 Organisation and Management	510 Introduction to Commercial Law
550 Business Computing (only compulsory for Diploma in Business Computing Students)	520 The Economic Environment (but not both 500 and 520
	541 Fundamentals of Marketing
560 Business Communication	550 Business Computing
630 Leadership	632 Operations Management
636 Applied Managment	633 Human Resource Management

On completion of YEAR 1 students can:
1. Graduate with the NZIM Diploma in Management, or
2. Continue onto more NZDipBus papers and complete the two-year NZDipBus, or
3. Continue onto YEAR 2, the National Diploma in Computing Level 7, which leads also to the two-year Diploma in Business Computing

Year 2
All of the following units (from the Diploma in Computing Level 7)

- Explain ethics and professionalism for the computer industry in New Zealand
- Explain the management of the information systems function in an organisation
- Assess and provide technical advice on software for a single-user personal computer
- Explain local area computer networks and install network workstations
- Demonstrate an understanding of local and wide area computer networks
- Assess & provide technical advice on system software for a multi user computer
- Apply the principles of project planning and control
- Design a local area network
- Plan and manage a project in the computer field

Guidelines and Procedures

All conditions and procedures and entry qualifications for the first year of the Diploma in Business Computing are the same as for the NZDipBus, as outlined in the pages above. Conditions and procedures for the second year are the same as for the Diploma in Computing as outlined in the pages above.

Appendix

Programme changes

With the expiry of Level 6 and 7 computing unit standards scheduled for December 2011, ICL Graduate Business School modified the National Diploma in Computing Level 7 into the Diploma in Computing Level 7 by way of a Category 2 change:

- There was a change of name from National Diploma in Computing Level 7 to Diploma in Computing Level 7;

- The notional learning hours, number of weeks, etc, remained as per the National Diploma;

- The numbers/badges were removed from the unit standards but the content and level remained the same as that of the unit standards;

- Marking continued in the competency assessment mode, although 5148 and 5154 were subsequently modified to examination assessment;

- An external moderator (AUT) was appointed to oversee assessment and moderation.