

Programmatic Review of the Faculty of Business & Humanities 2017

Phase 2: Programme Review

PROGRAMME PANEL REPORT

SCHOOL: School of Business
DEPARTMENT: Department of Accounting & Information Systems
DATE: 8th March 2017

PROGRAMMES SUBMITTED FOR REVIEW

Major Awards

Bachelor of Business (Hons) in Business Information Systems

PROGRAMME REVIEW PANEL MEMBERSHIP

Dr Denis Dennehy	NUIG	Chairperson
Liam Doyle	WIT	
Eoin Haberlin	Spark Analytics	
Dr Michael J. O'Mahony	CIT	

PROGRAMME REPRESENTATION

Programme Staff

Gerard O'Donovan	Head, Faculty of Business & Humanities	
Brian McGrath	Head, School of Business	
Catherine Murphy	Head, Department Accounting & Information Systems	
Martin Connolly	Accounting & Information Systems	Course Co-ordinator
Dr Regina O'Flynn	Accounting & Information Systems	Year 1 Co-ordinator
Holger Huber	Accounting & Information Systems	Year 3 Co-ordinator
Dr Fred Creedon	Organisation & Professional Development	Year 2 Co-ordinator
Orla Cartner	Accounting & Information Systems	Year 4 Co-ordinator
Colette Murphy	Marketing & International Business	
Arthur Tobin	Computer Science	

Dr Aine Ni She	Head, Department of Mathematics
Denise McSweeney	Accounting & Information Systems
Vivienne Griffin	Marketing & International Business
Colm Barry-Murphy	Accounting & Information Systems
Dr Aisling Conway Lenihan	Management & Enterprise
Scott McGowan	Accounting & Information Systems
Lisa Murphy	Management & Enterprise
Dr Declan O'Connor	Mathematics
John Lynch	Accounting & Information Systems
Aileen Cotter	Management & Enterprise

Learner Representatives

Laura Campbell	Stage 1
Kate Hurley	Stage 2
Joshua Volfango	Stage 3
Danielle Matthews	Stage 3
Ian Cronin	Stage 3
Matt Donovan	Stage 4
Marc O'Driscoll	Stage 4

Graduates

Michelle Deasy	CORE
Gearoid Coughlan	UCC Masters Student
Kyle Paul	FireEye
Georgina O'Shea	Business Software Solutions
Conor Murphy	Musgraves

External Stakeholders

Gerry Murphy	Vmware
Dave McCarthy	Rubicon
Catherine Leen	ESB
Anna Dynan	CIT

PROGRAMME SUMMARY AND MAJOR CHANGES PROPOSED

1. BACHELOR OF BUSINESS (HONS) IN BUSINESS INFORMATION SYSTEMS

1.1. Programme Summary

This programme is an *ab-initio* level 8 honours degree, which was most recently validated in the Programmatic Review of 2009-10. The programme was fully converted to the CIT Modularisation and Semesterisation structure at that time. The programme commenced in 2002 and its first graduates completed the programme in 2006.

The programme is founded on the principle of developing a hybrid graduate who take 50% business related modules and 50% technology related modules. The revisions in the programme reflect the current themes of Big Data, Cloud Computing and Mobile. The programme prepares the students for the placement roles in the third year of the degree as well as graduate roles. Placement has been a success story for the students and the college with excellent feedback from students and employers.

1.2. Major Changes Now Proposed

The changed focus in the industry have been incorporated into the content of the modules. The last major change in the programme was in 2010 and significant changes have happened in the intervening years. The current themes of Big Data and Cloud Computing have been introduced and integrated into multiple modules. This has been reflected in the changed content and in the changed nature of the modules. The nature of some of the new modules mean that for example learning outcomes relating to both Maths and Business are within the Business Analytics module. The module Mobile Business Development integrates Marketing perspective as well as Mobile Development skills within the one module.

The Big Data theme is built upon two Statistical modules in Semester Two and Three. Business Analytics is delivered in Semester Five followed by Business Intelligence and Data Visualisation in Semester Eight. In association with the Big Data theme, Information Security is given an increased emphasis. There are three dedicated modules covering Information Governance, Ethics and Legal Issues in IT and IS Security & Privacy. A foundation for Information security is laid in IS modules in Semester 1 and 2.

Students are studying systems development with an expectation that their professional role will be in the area of analysis and design. They will cover a number of programming languages including VB, C#, SQL, HTML, CSS, PHP and Javascript. There has been a greater emphasis on process analysis and design. The key modules are Business Process Design, Business Process Management in semester one and two and Systems Analysis and Systems Development in semester three and four. A new elective Design Tech Experiences will examine the wider design issues outside of the interface.

Digital Marketing which is missing from the current programme will be in place in the new programme in Semester Two and Four. This reflects current industry practice and was also part of feedback from placement employers.

In addition, the requirements reflected by industry in terms of communication, report writing, group working, research and 'work readiness' have been fulfilled by module assessment methods and delivery mechanisms. The cross modular projects which were reviewed positively by industry are retained and extended in the new programme. There is a heavier emphasis on group work, research and presentation in the new IS Consulting module in Semester 5. This will support

preparing the student for the realities of the work place. It will also provide an opportunity for students to engage directly with employers at the associated showcase for the module. There was consistent feedback from industry regarding the short length of the placement particularly in comparison to other college's placement offerings. There was also feedback from staff and students regarding the highly stressful 'short fat' semester. In response, the programme has changed from a 15 credit placement which was delivered in an intensive 8 weeks in Semester 6 to a new 30 credit placement. The 30 credit placement will fulfil the entire Semester 6 requirements. This will lead to the possibility of longer placement period options for employers and students alike. Other experience options will be available to students in the form of an Erasmus option of Studying 30 credits abroad and an option to study 30 credits in Internationalisation in CIT.

There was also feedback from large pharmaceutical companies in the local area regarding the students' lack of understanding of lean concepts. Students were returning from other manufacturing facility placements with training on lean management. An elective Operations & Quality has been introduced for student pre Work Placement to offer them an introduction to the manufacturing environment.

It is also intended to more comprehensively weave the modules together eliminating orphan modules. Finally the learning outcomes of the more technical modules have been adjusted to ensure that students connect the technology with the business impacts.

The key changes proposed can be summarised as follows:

- The current themes of Big Data and Cloud Computing have been introduced and integrated into multiple modules. The Big Data theme is built upon two Statistical modules in Semester Two and Three. Business Analytics is delivered in Semester Five followed by Business Intelligence and Data Visualisation in Semester Eight.
- There are three dedicated modules covering Information Governance, Ethics and Legal Issues in IT and IS Security & Privacy. A foundation for Information security is laid in IS modules in Semester 1 and 2.
- Students will cover a number of programming languages including VB, C#, SQL, HTML, CSS, PHP and Javascript. Greater emphasis on process analysis and design. The key modules are Business Process Design, Business Process Management in semester one and two and Systems Analysis and Systems Development in semester three and four. A new elective Design Tech Experiences will examine the wider design issues outside of the interface.
- Digital Marketing will be in place in the new programme in Semester Two and Four.
- The cross modular projects are retained and extended in the new programme. There is a heavier emphasis on group work, research and presentation in the new IS Consulting module in Semester 5.
- The short length of the placement and the highly stressful 'short fat' semester have been changed from a 15 credit placement which was delivered in an intensive 8 weeks in Semester 6 to a new 30 credit placement. The 30 credit placement will fulfil the entire Semester 6 requirements.

The following details by semester the proposed amendments:

Stage 1 Semester 1

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
CMOD6001	Creativity Innovation & Teamwork	CMOD6001	Creativity Innovation & Teamwork
ACCT6011	Accounting Systems 1	ACCT6007	Fundamentals of Fin/Acc
MGMT6001	Business Management 1		Management Principles for IS
INFO6001	Essentials of Business Information Systems 1		IS Infrastructure for Business
INFO6004	Essentials of Business Programme 1		Business Process Design
MATH6051	Essential Maths & Stats for Business		PC Applications

Stage 1 Semester 2

Existing		Proposed	
ACCT6012	Accounting Systems 2	ACCT6009	Financial Accounting
MGMT6003	Business Management 2	MRKT6008	Intro to Marketing for IS
INFO6002	Essentials of Business Information Systems 2		Info Systems for Business
INFO6003	Essentials of Business Programme 2		Business Process Management
STAT6011	Stats & Financial Maths for Bus		Maths & Statistics for BIS
		INFO6031	Business Data Communications
Elective			
JOUR6001	Communication		
INFO6019	Web Design Fundamentals		
FREE6001	Free Choice Module		

Stage 2 Semester 1

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
ACCT6020	Mgmt Accounting and Systems 1		Corporate Finance
MRKT6008	Intro to Marketing for IS		IS Project Management
ECON6003	Microeconomics	ECON6003	Introduction to Microeconomics
INFO7005	Systems Analysis for Business	INFO7005	Systems Analysis for Business
INFO6029	Bus. Object Oriented Prog. 1		E-Business Development
INFO6031	Business Data Communications		Statistical Inference

Stage 2 Semester 2

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
ACCT6021	Mgmt Accounting and Systems 2		Managerial Accounting
MRKT6009	Marketing in an Information Society		Digital Marketing & Analytics
ECON6001	Macroeconomics	ECON6001	Introduction to Macroeconomics
INFO7006	Systems Design for Business		Systems Development
INFO6030	Bus. Object Oriented Prog. 2		Digital Innovation & The Web
Elective			
COMP7032	Routing and Switching Concepts		Financial Technology
MGMT7065	Supply Chain Management 2		Information Governance
FREE6001	Free Choice Module		

Stage 3 Semester 1

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
INFO8002	IS Project Management 1	INFO8003	Advanced IS Project Management
LEGS8001	IT Law		Business Analytics
INFO7002	E-Business 1	INFO7002	E-Business Management
COMP7026	Database Design		Enterprise Architecture
SOFT6014	Business Systems Administration		IS Consulting & Practice
Elective			
MGMT7021	Human Resource Management		Design Tech Experiences
MMED8014	Multimedia Design	MGMT8050	Operations & Quality
		MRKT7011	Professional Sales Practice
		FREE6001	Free Choice Module

Stage 3 Semester 2

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
INFO8003	IS Project Management 2	Group Elective 1	
INFO7003	E-Business 2	PLAC7009	Work Placement
COMP7027	Database Implementation	Group Elective 2	
INFO7007	Work Placement	MMED8023	Media Presentation
		MGMT6044	Cultural Studies
		MRKT7020	International Market Launch
		MGMT8035	Emerging Markets and Trends
		MGMT8043	Seminar Series
		Group Elective 3	
		APEX8030	Approved External Study - 30 Credits

Stage 4 Semester 1

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
MGMT8017	Strategic Business Management	MGMT8017	Strategic Business Management
FINA8001	Finance for IT Managers 1	FINA8001	Finance for IT: Company Finance
INFO8001	Enterprise Systems		Knowledge Systems
INFO8006	Web Application Development		Cloud Business Development
MGMT8007	New Venture Planning	MGMT8007	New Venture Planning
Elective			
MGMT8010	Inter. Bus. & Globalisation		Business Platform Integration
INFO8004	Mobile Business Systems		Mobile Business Development
		DATA8003	Unstructured Data & Visualisation
FREE6001	Free Choice Module		

Stage 4 Semester 2

Existing		Proposed	
Module Code	Module Name	Module Code	Module Name
MGMT8016	Strategic Business & IS Management	MGMT8016	IT Strategy
FINA8002	Finance for IT Managers 2	INFO8001	Enterprise Systems
ACCT8003	IT Auditing		BI & Data Visualization
INFO8005	Advanced Database Management Systems		I.S. Security & Privacy
INFO8007	Information Management	LEGS8001	Ethical and Legal Issues in IT
Elective			
MGMT8006	Entrepreneurship	MGMT8048	Enterprise and Innovation
MGMT8009	Intl Strategies & Org	MGMT8051	International Business
		FINA8002	Finance for IT: Investment
		STAT8008	Time Series & M-V Analysis
		FREE6001	Free Choice Module

A. PANEL FINDINGS AND RECOMMENDATIONS

1. OVERALL RECOMMENDATION TO ACADEMIC COUNCIL ON REVALIDATION

Contingent upon confirmation of the successful completion of the internal programme and module moderation process, the Panel **recommends to Academic Council that the programmes listed above be revalidated** for a further five years or until the next Programmatic Review, whichever is sooner, with effect from 1 September 2017.

Other than Registrar's Office approval of the programme and module specifications on conclusion of internal moderation, no conditions are attached to this recommendation.

2. GENERAL

2.1. **Commendation:** The Panel **commends** the commitment of the academic staff to the Programmatic Review process evidenced by the detailed analysis and reflection underpinning the self-review of their programmes, the quality of documentation submitted and the professional manner in which they engaged with the review panel throughout the visit.

3. ENTRANT AND GRADUATE PROFILE, AWARD AND PROFESSIONAL ENVIRONMENT

Evidence was presented in both the Programme Review documentation and through the panel meeting with the graduate and employer panels that feedback from industry was incorporated in the programme presented for review and validation. The National Skills Bulletin 2016 specifically mentions shortages for roles relating to Business Analytics, Big Data and Business Intelligence. The requirements for graduates with high level of IT skills and business acumen particularly in the area of big data, have been incorporated into the revised programme.

Graduates of the BIS degree typically acquire roles in areas such as Business Analysis & Analytics; Project Management; Enterprise Resource Planning Systems Implementation; Digital Marketing; Information Security and IT consultancy.

Students currently receive exemptions from the CIMA Certificate in Business Accounting.

4. PROGRAMME OPERATION AND PERFORMANCE

4.1 **Commendation:** The panel **commends** the work of the School, Department and programme teams in the support they provide to their students. Clear evidence was presented to the panel of the work being done in the area of student success. This work included Institute and School initiatives such as Good Start, Just Ask, PALS, Pitstop Leadership, Academic Success Coaching, Early Intervention and SPARQS etc.

4.2 **Commendation:** The panel **commends** the Department on the operation of their programmes in terms of student recruitment, retention and graduation rates.

4.3 **Recommendation:** The panel **recommends** that the Department would further increase the flexible delivery of its curricula through online and blended delivery of appropriate modules and programmes in line with its stated strategic aims.

5. PROPOSED PROGRAMME SPECIFICATION (INCL. DELIVERY AND ASSESSMENT)

5.1 **Commendation:** The panel **commends** the panel for their proposal to replace the short length of the placement and the highly stressful 'short fat' semester with a new 30 credit placement.

5.2 **Commendation:** The panel **commends** the teaching team for adapting an integrated assessment approach in year 4 across 3 modules and pending the success of this, encourage the teaching teams to consider developing this practice in other modules.

5.3 **Recommendation:** The panel **recommends** that the programme team, perhaps aligned with other programmes within the School, develop a series of resources and policies to support work placement within the programme. These might include, inter alia, documents outlining the roles and responsibilities of the various actors involved in the work placement process, namely, industry, the Institute and the student. Induction policies should be developed which might include the role of the work place mentors, assessing work placement learning etc. The panel believe that the learning gained via the REAP project and other research undertaken in the area of Work Based Learning by Extended Campus would be invaluable to the programme team in developing these resources.

The panel **supports** the proposal that the administrative work associated with work placement across the School be facilitated by a dedicated work placement administrator.

5.4 **Recommendation:** The panel **recommends** that the programme team consider how best to prepare the learner for work placement in areas such as cv preparation, interview preparation, health and safety etc. A suggestion may be to develop a mandatory pre-placement module, perhaps delivered in block format, to address these areas.

5.5 **Recommendation:** The Cross modular projects may benefit from the introduction of peer review. One mechanism that has been shown to positively impact the learning of teamwork skills is the use of peer evaluation and feedback in conjunction with opportunities for team-based work (Brutus & Donia, 2010). Peer evaluations create accountability to teammates and provide an incentive for displaying good interpersonal skills and contributing effort to help the team achieve its goals (Millis & Cottell, 1998). The process of completing self and peer evaluations also helps students learn team skills (Thomas, Martin, & Pleasants, 2011).

CATME (Comprehensive Assessment of Team Member Effectiveness) is an on line resource that facilitates peer evaluation. When using teams in education, faculty often use peer evaluations and self-evaluations to assess how effectively each team member contributes to the team.

This web-based instrument collects data on team-member effectiveness in five areas research has shown to be important;

1. Contributing to the team's work
2. Interacting with teammates
3. Keeping the team on track

4. Expecting quality
5. Having relevant knowledge skills and abilities

The proposed programme has a group cross-modular project spanning E-Business Management (50%), Enterprise Architecture (40%) and Advanced IS Project Management (50%). The values in brackets are the percentage of the overall marks awarded to the group cross-modular project.

The panel **recommends** that the programme team articulate a Peer Assessment strategy for the cross modular projects that documents peer evaluations in a team-performance context.

- 5.6 **Recommendation:** The panel notes the high dependency of examinations as the primary form of assessment particularly in the award stage of the programme. The panel **recommends** that the programme team, perhaps in a phased basis, would incorporate a Cross Modular Project that builds on the experience of Work Placement in semester 6. Feedback from students and graduates supports an individual Cross Modular Project that would exhibit incremental year on year development.

MODULES

The panel had detailed discussions with the proposing team in respect to the modules making up this programme. The Panel notes that the Department has engaged extensively with the Registrar's Office in relation to their module descriptors prior to the panel visit.

The recommendation of the Panel to revalidate the programme under review is contingent on the successful completion of the internal programme and module moderation process carried out by, or on behalf of, the CIT Registrar's Office.

6. OTHER FINDINGS AND RECOMMENDATIONS

- 6.1 **Recommendation:** The panel support the strategic aim of the School to house its suite of programmes and staff within a dedicated School of Business building. The panel recommends that the School strongly engage when the proposed building design is being developed to ensure it meets the teaching and learning requirements of a modern School of Business in terms of flexible teaching spaces, technology infrastructure, wifi etc.

7. DEROGATIONS SOUGHT

- 7.1. The Panel confirms that all large modules included in the programmes align with CIT policy on large credit modules.
- 7.2 The continuation of derogation is sought from electives and free choice in Semester 1, 2, and 3 of the programme.

B. PROGRAMME FINALISATION

1. IMPLEMENTATION OF PANEL REQUIREMENTS/RECOMMENDATIONS

COMMENDATION

2.1 Commendation: The Panel **commends** the commitment of the academic staff to the Programmatic Review process evidenced by the detailed analysis and reflection underpinning the self-review of their programmes, the quality of documentation submitted and the professional manner in which they engaged with the review panel throughout the visit.

Department Response: The Programme team wish to sincerely thank the panel for their comprehensive and insightful review of the BIS programme at CIT. The recommendations outlined are welcomed and will serve to further enhance our programme offering and support continued successful programme recruitment and retention going forward.

RECOMMENDATIONS

4.3 The panel **recommends** that the Department would further increase the flexible delivery of its curricula through online and blended delivery of appropriate modules and programmes in line with its stated strategic aims.

Departmental Response: The delivery options of the BIS programme will be examined as part of the School of Business strategy.

5.3 The panel **recommends** that the programme team, perhaps aligned with other programmes within the School, develop a series of resources and policies to support work placement within the programme.

Departmental Response: The Department welcomes the recommendation and will review existing documents outlining the roles and responsibilities of the various actors involved in the work placement process, namely, industry, the Institute and the student to ensure that they reflect current best academic practice and industry needs. A school based committee has been put in place to gather the existing work practices and to develop new procedures and policies. Induction policies will be developed which will include the role of the work place mentors, assessing work placement learning etc. The specific templates included in the REAP documentation and discussed during the panel visit will be of value in this area. This work will be completed in advance of student work placements commencing in January 2018.

The Department welcomes the support for the dedicated work placement administrator.

5.4 The panel **recommends** that the programme team consider how best to prepare the learner for work placement in areas such as CV preparation, interview preparation, health and safety etc. A suggestion may be to develop a mandatory pre-placement module, perhaps delivered in block format, to address these areas.

Departmental Response: The team welcomes this recommendation. The learner preparation will be considered by the work placement co-ordinator team.

5.5 The panel **recommends** that the programme team articulate a Peer Assessment strategy for the cross modular projects that documents peer evaluations in a team-performance context.

Departmental Response: Peer Assessment strategies will be explored by cross modular teams as part of the overall assessment strategy. The significant benefits outlined in the recommendation will be a valuable addition to the consideration.

5.6 The panel **recommends** that the programme team, perhaps in a phased basis, would incorporate a Cross Modular Project that builds on the experience of Work Placement in semester 6. Feedback from students and graduates supports an individual Cross Modular Project that would exhibit incremental year on year development.

Departmental Response: The programme team will consider the incorporation of work placement experiences into an individual final year cross modular project. The feedback from students and graduates is a valuable insight in this consideration.

6.1 **Recommendation:** The panel support the strategic aim of the School to house its suite of programmes and staff within a dedicated School of Business building. The panel recommends that the School strongly engage when the proposed building design is being developed to ensure it meets the teaching and learning requirements of a modern School of Business in terms of flexible teaching spaces, technology infrastructure, wifi etc.

Departmental Response: The Department will be keen to engage with any building proposals to ensure a fit for purpose teaching and learning space for the BIS students.

2. MODULE AND PROGRAMME MODERATION

Module and programme descriptors have been amended in line with feedback from the panel and module moderator. The module and programme descriptors are proposed for adoption by Academic Council.

C. APPENDIX – TIMETABLE OF PHASE 2 MEETINGS

Business Information Systems PR Phase 2 Panel Visit – March 7th and 8th 2017

Tuesday

7.30 pm Panel Dinner

Wednesday

8.30 am Private Panel Meeting including presentation by Registrar's Office

9.00 am Departmental/School Presentation

9.30 am Meeting with Dept. Teams re Programme Operation and Performance

11.00 am **Private Panel Meeting (Tea/Coffee)**

11.30 am Meet with Dept. Teams re Proposed Changes to Programme Structures

12.45 pm **Private Panel Lunch**

1.45 pm Meet with Dept. Teams re General Review of Modules

3.15 pm **Private Panel Meeting (Tea/Coffee)**

3.30 pm Meet with Students

4.00 pm Meet with Graduates

4.30 pm Meet with Employers

5.00pm Private Panel Meeting to draft outline report

5.30pm Feedback to school and department management