INFORMATION SYSTEMS (INFS)

INFS 1002 Information Systems in Context (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1002/**) Legacy Code:** 300573
This unit aims to give students the ability to recognise and explain
business information systems with regard to type, function, purpose,
and the frameworks within which these systems are used. Topics in
this unit include computing fundamentals; computer hardware and
software; computers and society; use of business application packages
- spreadsheets, word processing, database, graphics; organisational
information systems; information systems development and
acquisition; data and knowledge management; electronic commerce,
internets, extranets; networking; enterprise-wide information systems;
the internet and information systems security; privacy, ethics and
computer crime.
Level: Undergraduate Level 1 subject
Equivalent Subjects: INFS 1003 Information Systems in Context
(WSTC)
Incompatible Subjects: INFS 1004 Introduction to Information
Systems
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 1003 Information Systems in Context (WSTC) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1003/**) Legacy Code:** 700000
This unit aims to give students the ability to recognise and explain
business information systems with regard to type, function, and
purpose, and the frameworks within which these systems are used.
Topics in this unit include computing fundamentals; computer
hardware and software; computers and society; use of business
application packages - spreadsheets, word processing, database,
graphics; organisational information systems; information systems
development and acquisition; data and knowledge management;
electronic commerce, internets, extranets; networking; enterprise-wide
information systems; the internet and information systems security;
privacy, ethics and computer crime.
Level: Undergraduate Level 1 subject
Pre-requisite(s): Students enrolled in 7138 Diploma in Information
and Communications Technology Extended - ICT 7139 Diploma in
Information and Communications Technology Extended or 7140
Diploma in Information and Communications Technology Extended
– Information Systems must pass LANG 0012 Academic and
Professional Communication (WSTC Prep) and INFO 0001 Academic
Skills for ICT (WSTC Prep)
Equivalent Subjects: INFS 1002 - Information Systems in Context
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 1006 Systems Analysis and Design (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1006/**) Legacy Code:** 300585
This unit introduces the concepts of System Analysis and Design.
The study of methodologies and techniques for problem recognition,
requirement analysis, process modelling, solution design and
data modelling are essential elements of this unit. The Systems
Development Life Cycle model is employed as the prime approach
to teach the unit, equipping students with the basic skills required
for developing models for analysis, design, implementation and
solving information systems problems. This unit introduces students
to approaches of system development including structured, object
oriented and agile. Students are exposed well to system design
activities including UI, data, basic system architecture and system
processing. The use of drawing tools will be discussed in practical
sessions.
Level: Undergraduate Level 1 subject
Equivalent Subjects: LGYA 5776 Introduction to Analysis and Design
INFS 1007 Systems Analysis and Design (WSTC)
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 1007 Systems Analysis and Design (WSTC) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1007/**) Legacy Code:** 700013
This unit introduces the concepts of System Analysis and Design.
The study of methodologies and techniques for problem recognition,
requirement analysis, process modelling and/or data modelling are
essential elements of this unit. The Systems Development Life Cycle
model is employed as the prime approach to teach the unit, providing
students with the basic skills required for analysis and design of logical
solutions to information systems problems. The use of Computer Aided
System Engineering tools will be discussed in practical sessions.
Level: Undergraduate Level 1 subject
Pre-requisite(s): Students enrolled in 7067 Diploma in Information
and Communications Technology Extended must pass LANG 0002
Academic Communication 2 (WSTC Prep) or LANG 0032 English for
Tertiary Study 2 (WSTC Prep) or LANG 0039 Introduction to Academic
Communication 2 (WSTC Prep) and must pass INFO 0008 Computer
Studies (WSTC Prep) before enrolling in this unit
Students enrolled in 7138 Diploma in Information and Communications
Technology Extended-ICT 7139 Diploma in Information and
Communications Technology Extended 7140 Diploma in Information
and Communications Technology Extended–IS and 7141 Diploma in
Information and Communications Technology Extended-HIM must
pass LANG 0012 Academic Professional Communication (WSTC Prep)
and must pass INFO 0001 Academic Skills for ICT (WSTC Prep) and
must pass INFO 0010 Information Technology in Business (WSTC Prep)
before enrolling in this unit
Equivalent Subjects: LGYA 5776 - Introduction to Analysis and Design
INFS 1006 - System Analysis and Design
INFS 1006 - Systems Analysis and Design
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 1013 Information Systems in Context (UG Cert) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1013**/) Legacy Code:** 500046
This unit aims to give students the ability to recognise and explain
business information systems with regard to type, function, purpose,
and the frameworks within which these systems are used. Topics in
this unit include computing fundamentals; computer hardware and
software; computers and society; use of business application packages
- spreadsheets, word processing, database, graphics; organisational
information systems; information systems development and
acquisition; data and knowledge management; electronic commerce,
internets, extranets; networking; enterprise-wide information systems;
the internet and information systems security; privacy, ethics and
computer crime.
Level: Undergraduate Level 1 subject
Equivalent Subjects: INFS 1002 Information Systems in Context
INFS 1003 Information Systems in Context
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 1015 Systems Analysis and Design (Advanced) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs1015**/)**
Computing graduates must be able to analyse business requirements
and propose a design solution to those requirements. This unit equips
students with these skills by further developing previously acquired
concepts on systems analysis and design. Students are introduced
to novel approaches in system development including Structured,
Object oriented and Agile. The Systems Development Life Cycle model
is employed as the prime approach equipping students with the
basic skills required for developing models for analysis, design and
implementation approaches to solving information systems problems.
Students will engage in authentic real-world projects to understand
requirements, analyse, design and develop models and artefacts using
several systems development methodologies.
Level: Undergraduate Level 1 subject
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2001 Database Design and Development (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2001**/) Legacy Code:** 300104
The main purpose of this unit is to provide students with an opportunity
to gain a basic knowledge of database design and development
including data modelling methods, techniques for database design
using a set of business rules that are derived from a case study and
finally implementation of the database using a commercial relational
database management system. Through group work and tutorial
practicals, students examine a number of important database concepts
such as database administration, concurrency, backup and recovery
and security whilst developing their professional communication and
team work skills.
Level: Undergraduate Level 2 subject
Equivalent Subjects: INFS 2003 - Database Design and Development
(WSTC)
Incompatible Subjects: LGYA 4371 - Database Management System for
Business Information Systems
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2002 Database Design and Development (Advanced) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2002**/) Legacy Code:** 300941
This unit covers the principles, methodologies and technologies for
the database design and development, exploring in particular the data
modelling methods and the use of the language SQL for the database
applications. The unit also examines a number of important database
concepts such as database administration, concurrency, backup and
recovery, and security. Students in this advanced unit are furthermore
required to investigate new technological and theory advances in the
database industry and apply them to the solution of concrete database
problems.
Level: Undergraduate Level 2 subject
Incompatible Subjects: LGYA 4371 - Database Management System
for Business Information Systems INFS 2001 - Database Design and
Development
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2003 Database Design and Development (WSTC) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2003**/) Legacy Code:** 700011
The main purpose of this unit is to provide students with an opportunity
to gain a basic knowledge of database design and development
including data modeling methods, techniques for database design
using a set of business rules that are derived from a case study and
finally implementation of the database using a commercial relational
database management system. Through group work and tutorial
practicals, students examine a number of important database concepts
such as database administration, concurrency, backup and recovery
and security whilst developing their professional communication and
team work skills.
Level: Undergraduate Level 2 subject
Pre-requisite(s): Students enrolled in 7067 Diploma in Information
and Communications Technology Extended and 7134 Diploma
in Information and Communications Technology Extended – ICT
must pass LANG 0002 Academic Communication 2 (WSTC Prep) or
LANG 0032 English for Tertiary Study 2 (WSTC Prep) or LANG 0039
Introduction to Academic Communication 2 (WSTC Prep) and must
pass INFO 0008 Computer Studies (WSTC Prep) and must pass
COMP 0003 Programming Design (WSTC Prep) before enrolling in this
unit
Students enrolled in 7138 Diploma in Information and Communications
Technology Extended-ICT 7139 Diploma in Information and
Communications Technology Extended 7140 Diploma in Information
and Communications Technology Extended–IS and 7141 Diploma in
Information and Communications Technology Extended-HIM must pass
LANG 0012 Academic and Professional Communication (WSTC Prep)
and must pass INFO 0010 Information Technology in Business (WSTC
Prep) and must pass COMP 0003 Programming Design (WSTC Prep)
Students enrolled in 6038 Diploma in Information and Communications
Technology Bachelor of Information and Communications
Technology (HIM) 6039 Diploma in Information and Communications
TechnologyBachelor of Information and Communications
Technology 6040 Diploma in Information and Communications
TechnologyBachelor of Information Systems 7163 Diploma in
Information and Communications Technology and 7164 Diploma
in Information and Communications Technology (HIM) must pass
COMP 0003 Programming Design (WSTC Prep)
Equivalent Subjects: INFS 2001 - Database Design and Development
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2004 Introduction to Health Informatics (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2004/) **Legacy Code:** 300566
This introductory unit aims to give the student an insight into the key
knowledge and skill set required in the emerging domain of Health
Informatics. Critical topics include: The Australian healthcare system,
health care improvement modelling, health information systems
and management, paper-based v's electronic health records, clinical
documentation and data quality, health information management,
consumer information security, privacy and ethics, decision support
and clinical delivery support systems, healthcare data representation
and interchange standards, telehealth and Information Communication
technologies (ICT). This will be complemented by practical exercises
and assessment support sessions. Through these experiences
students will gain an understanding of the application of ICT to the
healthcare domain and the skills necessary to play a pivotal role in
the design and delivery of healthcare systems and health information
management.
Level: Undergraduate Level 2 subject
Equivalent Subjects: INFS 2005 - Introduction to Health Informatics
(WSTC)
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 2005 Introduction to Health Informatics (WSTC) (10 Credit
Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2005/) **Legacy Code:** 700258
This introductory unit aims to give the student an insight into the key
knowledge and skill set required in the emerging domain of Health
Informatics. Critical topics include: The Australian healthcare system,
health care improvement modelling, health information systems
and management, paper-based v's electronic health records, clinical
documentation and data quality, health information management,
consumer information security, privacy and ethics, decision support
and clinical delivery support systems, healthcare data representation
and interchange standards, telehealth and ICT technologies. This
will be complemented by practical exercises and assessment
support sessions. Through these experiences students will gain an
understanding of the application of ICT to the healthcare domain and
the skills necessary to play a pivotal role in the design and delivery of
healthcare systems and health information management.
Level: Undergraduate Level 2 subject
Equivalent Subjects: INFS 2004 - Introduction to Health Informatics
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2006 Object Oriented Analysis (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2006/) **Legacy Code:** 300144
The core strength of this unit is to analyse and model business
objectives and critical requirements of software systems to be
developed using object-oriented (OO) approaches. The system analysis
is taken to greater depths within the context of Object Orientation. The
Unified Modelling Language version 2.0 (notably use cases, user case
diagrams, activity diagrams, class diagrams and sequence diagrams) is
used as the modelling standard for creating OO models in the problem
space. The unit also covers the rational unified process methodology
and applications of design patterns for software development through
practical case studies.
Level: Undergraduate Level 2 subject
Pre-requisite(s): INFS 1006
Equivalent Subjects: MATH 2013 Object Oriented Analysis (WSTC)
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2007 Object Oriented Analysis (Advanced) (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2007/) **Legacy Code:** 300888
The core strength of this unit, as the advanced version of 300144
Object Oriented Analysis, is to analyse and model business objectives
and critical requirements of software systems to be developed using
object-oriented (OO) approaches. The system analysis is taken to
greater depths within the context of Object Orientation. The Unified
Modelling Language version 2.0 (notably use cases, user case
diagrams, activity diagrams, class diagrams and sequence diagrams) is
used as the modelling standard for creating OO models in the problem,
solution and background modeling spaces. The unit also covers the
rational unified process methodology and applications of design
patterns for software development through real world case studies.
Level: Undergraduate Level 2 subject
Pre-requisite(s): INFS 1006
Incompatible Subjects: INFS 2006 - Object Oriented Analysis
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 2009 Database Design and Development (UG Cert) (10 Credit
Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2009/) **Legacy Code:** 500048
The main purpose of this unit is to provide students with an opportunity
to gain a basic knowledge of database design and development
including data modeling methods, techniques for database design
using a set of business rules that are derived from a case study and
finally implementation of the database using a commercial relational
database management system. The unit also examines a number
of important database concepts such as database administration,
concurrency, backup and recovery and security.
Level: Undergraduate Level 2 subject
Equivalent Subjects: INFS 2001 Database Design and Development
INFS 2003 Database Design and Development
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 2010 Work-Integrated Learning in Digital Construction (10 Credit
Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2010/) **Legacy Code:** 301428
The digitalisation of construction industries has grown considerably in
the past decade and this unit responds in practical ways by engaging
students in project-based learning related to Digital Construction within
an industry framework. Students will select a project with an agreed
industry partner, which involves simple digital applications in day-to-
day construction such as software applications, information systems,
digital solutions, apps and fintechs. This unit contributes towards the
skills required for a work-ready graduate and allows the student to plan,
undertake and report on a specific aspect of practice in the context of
work.
Level: Undergraduate Level 2 subject
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 2011 Object Oriented Analysis (WSTC) (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs2011/)
The core strength of this subject is to analyse and model business
objectives and critical requirements of software systems to be
developed using object-oriented (OO) approaches. The system analysis
is taken to greater depths within the context of object orientation.
The Unified Modelling Language version 2.0 (notably use cases,
activity diagrams, class diagrams and sequence diagrams) is used as
a modelling standard for creating OO models in the problem space.
The unit also covers the rational unified process methodology and
applications of design patterns for software development through
practical case studies.
Level: Undergraduate Level 2 subject
Pre-requisite(s): Students enrolled in 7004 Diploma in Information and
Communications Technology Fast Track 7005 Diploma in Information
and Communications Technology 7067 Diploma in Information and
Communications Technology Extended 7134 Diploma in Information
and Communications Technology Extended – ICT 7138 Diploma in
Information and Communications Technology Extended - ICT 7139
Diploma in Information and Communications Technology Extended
7140 Diploma in Information and Communications Technology
Extended - Information Systems 7163 Diploma in Information and
Communications Technology 6035 DiplomaBachelor of Information
and Communications Technology 6036 Diploma in Information and
Communications TechnologyBachelor of Information Systems 6039
DiplomaBachelor of Information and Communications Technology
and 6040 Diploma in Information and Communications Technology
Bachelor of Information Systems must pass INFS 1007 Systems
Analysis and Design before enrolling in this unit
Equivalent Subjects: INFS 2006 Object Oriented Analysis
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 3001 Activity Based Funding/Casemix and Data Quality (10
Credit Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3001/) **Legacy Code:** 300954
This unit will introduce students to Activity Based Funding and Casemix
within the Australian healthcare system. It is designed to cover a
variety of casemix classification systems for acute, non-admitted, sub-
acute and mental health patients. Attention will be given to Diagnosis
Related Groups (DRGs) with specific reference to the Australian Refined
Diagnosis Related Groups (AR-DRGs) and the relationship to Activity
Based Funding and purchasing models. Measuring performance with
activity data and clinical costing methods will be explored. Emphasis
will be placed on the impact of data quality as a critical component in
achieving excellence in clinical costing, casemix and patient safety.
Level: Undergraduate Level 3 subject
Pre-requisite(s): PUBH 2004
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 3002 Advanced Clinical Classification (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3002/) **Legacy Code:** 300953
In this unit, the student will be introduced to disease notification and
registration procedures. Mortality or cause of death coding will also be
examined.Concepts of organising health information in a logical way
to interface with an electronic information system will be investigated.
The design and role of various health classification systems including
the World Health Organizations Family of International Classifications
(WHO FIC), specifically ICD 11 and casemix classification systems (e.g.
AR DRGs, AN SNAP) will also be discussed. The practical component of
this unit will focus on the student further developing their classification
skills in the more complex areas of clinical coding including endocrine
disorders, specifically diabetes mellitus, circulatory diseases and
interventions, genitourinary disorders, specifically chronic kidney
disease, obstetrics, paediatrics and congenital anomalies and trauma
and procedural complications. The ACS will be applied in detail when
classifying from complex discharge summaries and full clinical
episodes of care. The student will also be exposed to electronic clinical
coding tools that can be used in the classification process.
Level: Undergraduate Level 3 subject
Pre-requisite(s): PUBH 2004
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 3003 Artificial Intelligence (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3003/) **Legacy Code:** 301174
This unit provides basic studies in the major areas of artificial
intelligence: search, knowledge representation, logic programming,
machine learning and knowledge based systems, agent planning
and learning. The first part of this unit will focus on the foundation of
artificial intelligence: search algorithms and their implementations,
game playing, logics and knowledge representation, and inference
in reasoning systems. The second part will cover the principles of
knowledge based systems (intelligent systems), planning, and machine
learning.
Level: Undergraduate Level 3 subject
Pre-requisite(s): MATH 1006 AND
COMP 2009
Equivalent Subjects: LGYA 5740 Artificial Intelligence LGYA 5781
Knowledge Based Systems INFS 3013 Intelligent Systems
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 3005 Developing Web Applications with XML (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3005/) **Legacy Code:** 300111
This third year unit provides a comprehensive coverage of XML, related
emerging technologies and their use in web applications. Students
will be given opportunities to develop web based information systems
which rely upon these technologies. This unit is heavily oriented to
practical based work.
Level: Undergraduate Level 3 subject
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 3006 Emerging Trends in Information Systems (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3006/**) Legacy Code:** 300584
This unit provides a means for students to self-reflect on their future career and their possible involvement in the field of Information Systems and explore the changing nature of information systems in organisations via one of the following: engagements with local businesses, specifically crafted study tours or focused internships. In this unit students will study the role that emerging technologies play in selection, design and development of information systems. Students will be able to research and assess new technologies while networking and engaging with real life businesses, as well as develop and introduce effective strategies for achieving change and improvement that can be delivered by successfully implementing emerging technologies.
Level: Undergraduate Level 3 subject
Pre-requisite(s): INFS 1002 AND
COMP 2020
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3007 Emerging Trends in Information Systems (Advanced) (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3007/**) Legacy Code:** 300942
In this subject students explore the changing nature of information systems in organisations. Apart from being encouraged to research and assess new technologies and implement effective strategies for achieving change within organisational information systems, in this advanced subject students will be required to undertake an individual, but closely supervised research project. The project will help stimulate inquiry, strengthen needs for academic research and encourage students to actively participate in new knowledge generation. Furthermore, students in this subject will be required to present their findings in a form of an academic paper with a possibility of publishing.
Level: Undergraduate Level 3 subject
Pre-requisite(s): INFS 1002 AND
COMP 2020
Incompatible Subjects: INFS 3006 - Emerging Trends in Information Systems
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3008 Formal Software Engineering (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3008/**) Legacy Code:** 300404
This unit is concerned with the design, development and maintenance of computer software systems. The unit focuses on current formal specification and system verification technologies and methodologies. Foundations of model checking such as LTL and CTL, as well as a particular practical model checker SPIN will be thoroughly studied in this unit. The SPIN model checker with programming language PROMELA will be used for all software development and verification practices throughout this unit.
Level: Undergraduate Level 3 subject
Pre-requisite(s): MATH 1006 AND
COMP 2009
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3010 Healthcare Data Environments (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3010/**) Legacy Code:** 300955
This unit extends the student's knowledge of Health Informatics by introducing concepts relating to electronic communications within the health industry. It exposes students to a variety of environments used to create, store, transfer and deliver healthcare data. Areas include minimum data sets, data linkage, messaging concepts/standards, terminologies, healthcare evaluation, electronic health records and related standards, security, privacy and trust, medico legal, epidemiology and population health together with TeleHealth/TeleMedicine approaches, methodologies, tools and techniques.
Level: Undergraduate Level 3 subject
Pre-requisite(s): INFS 2004
Equivalent Subjects: INFS 3019 - e-Health
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3011 Healthcare Software and Systems (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3011/**) Legacy Code:** 300956
In this unit students will learn the concepts underpinning the services computing paradigm of "bridging the gap between Business Services and IT Services". Services Computing technology includes Web services and serviceoriented architecture (SOA), business consulting methodology and utilities, business process modelling, transformation and integration. Students will learn, through the development of practical examples, how to utilise these technologies within a healthcare context
Level: Undergraduate Level 3 subject
Pre-requisite(s): INFS 2004
Equivalent Subjects: INFO 3009 Services Computing in Healthcare
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3012 Information Systems Deployment and Management (10 Credit Points)
Subject Details **(**https://hbook.westernsydney.edu.au/archives/2021-2022/subject-details/infs3012/**) Legacy Code:** 300572
This unit provides a detailed overview of system implementation and deployment stages taking into consideration the steps that are necessary to place a newly developed system into production. In this unit students learn the skills required for accurate requirements gathering, timely and effective system development, and successful implementation that would result in effective system performance. For this to be achieved successfully this unit also addresses the importance of project management skills. The unit also highlights the issues of transition processes after the development phase, the activities required in systems support and maintenance in the system's operational stage.
Level: Undergraduate Level 3 subject
Pre-requisite(s): COMP 1005 AND
INFS 1006 OR
COMP 1005 AND
DESN 1021
Equivalent Subjects: LGYA 5900 Enterprise Information Management
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 3017 Web Systems Development (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3017/) **Legacy Code:** 300583
In this unit students further develop their theoretical and practical skills
in designing and developing web based information systems using
systems analysis, programming, database, human computer interaction
and web technologies skills that they have learnt in previous units.
Current web development technologies and/or frameworks will be
utilised to build a complex web information system in a collaborative
web development team. Techniques of porting web systems to mobile
platforms will also be explored.
Level: Undergraduate Level 3 subject
Pre-requisite(s): COMP 2020
Equivalent Subjects: LGYA 5737 Advanced Web Site Development
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 3018 Web Systems Development (Advanced) (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs3018/) **Legacy Code:** 300902
This unit teaches state-of-the-art web frameworks for developing
complex web systems. This unit utilises the skills of basic web
programming, database design, and systems analysis that students
have learnt in previous units. Major topics in this unit include
Cascading Style Sheet (CSS) framework, Razor pages, Model-View-
Controller (MVC) programming, object to relational database mapping,
and authentication and authorization. Moreover, this unit trains
students' collaborative skills by asking students to build a complex
website in a small team. As an advanced unit, deeper topics such as
custom data validation and error handling will be discussed.
Level: Undergraduate Level 3 subject
Pre-requisite(s): COMP 2020
Incompatible Subjects: INFS 3017 Web Systems Development
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 7001 Advanced Healthcare Data Environments (10 Credit
Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs7001/) **Legacy Code:** 301028
This unit extends the students knowledge of Health Informatics
by introducing concepts relating to electronic communications
within the health industry. It exposes students to a variety of
environments used to create, store, transfer and deliver healthcare
data. Areas include minimum data sets, data linkage, messaging
concepts/standards, terminologies, healthcare evaluation, electronic
health records and related standards, security, privacy and trust,
medico legal, epidemiology and population health together with
TeleHealth/TeleMedicine approaches, methodologies, tools and
techniques. Advanced skills and knowledge on researching into
recent developments in specific sub-topics will be acquired through
assessment components in the unit.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 7002 Advanced Healthcare Software and Systems (10 Credit
Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs7002/) **Legacy Code:** 301029
In this unit students will learn the concepts underpinning the services
computing paradigm of "bridging the gap between Business Services
and IT Services". Services Computing technology includes Web
services and service-oriented architecture (SOA), business consulting
methodology and utilities, business process modelling, transformation
and integration. Students will learn, through the development of
practical examples, how to utilise these technologies within a
healthcare context. Advanced knowledge and knowledge of recent
developments in specific sub-topics will also be acquired through
practical components in the unit.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 7003 Advanced Topics in ICT (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs7003/) **Legacy Code:** 300694
The information and communications technologies are advancing at
an ever-increasing rate. The whole world is now interconnected. The
World Wide Web community is actively engaged in developing the next
generation of the Web. Social networking on the Internet is facilitated
by the latest developments such as Facebook, YouTube and MySpace.
Artificial Intelligence is increasingly intertwined with the decisions
we make every day. Large scale storage technologies are leading to
Cloud Computing where data and applications may reside anywhere in
the world. Research in how to access meaningful data from the vast
amounts on the Web has led to initiatives such as Semantic Web and
Linked Data. Mashups mix data from disparate sources to enable users
to work more efficiently. Wireless and mobile computing are changing
the market place. All of these trends are still in their early stages. To
make sense of all these developments, the top echelons of the World
Wide Web Consortium are actively engaged in creating a new discipline
called Web Science. Advanced Topics in ICT will enable the students
to appreciate the scale of new developments and create prototypes of
applications in their desired ambit. This unit consists of three Topics
selected each semester. Assessment will be by a series of discussion
paper assignments here students will show they have met the unit
learning outcomes.
Level: Postgraduate Coursework Level 7 subject
Pre-requisite(s): ENGR 7017
Restrictions: Please see the Subject Details page for any restrictions
for this subject

**INFS 7004 Content Management Systems and Web Analytics (10
Credit Points)**
Subject Details (https://hbook.westernsydney.edu.au/
archives/2021-2022/subject-details/infs7004/) **Legacy Code:** 300697
Content management systems (CMS) is a collective name for a
wide range of web applications used by organisations/institutions/
enterprises and social communities in establishing a continuing web
presence. They may connect to backend systems and can provide
complete web application services. This unit builds on both the
conceptual and practical skills/knowledge to develop and utilise CMS's;
in their management; in technical, legal, ethical and security issues;
and in utilising web analytics to obtain business intelligence of their
operation and impact.
Level: Postgraduate Coursework Level 7 subject
Equivalent Subjects: LGYA 5891 Web Site Management and Security
Restrictions: Please see the Subject Details page for any restrictions
for this subject

INFS 7005 Smart Construction (10 Credit Points)
Legacy Code: 301189
This unit introduces the evolving smart technologies applicable to construction and facilitates critical thinking in how these technologies can be gainfully applied in the construction industry. It builds up understanding of the subject content from baseline principles of management information systems moving towards evolving new technologies such as digital engineering, Building Information Modelling, Blockchain, Artificial Intelligence among others. The modern construction enterprises are critically analysed to determine the application of suitable technologies for their advancement.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 7006 Software Testing and Automation (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/ archives/2021-2022/subject-details/infs7006/) **Legacy Code:** 300770
Software Testing and Automation will cover topics in two sections - Fundamentals of Software Testing and Test Automation. Section 1 will enable students to get a good understanding of different types of testing, the entire life cycle of Testing; how to design and prepare Test Cases, Test Data, execute these Test Cases and manage the defects. Students will also learn the importance of exclusive Test Environment for Testing and how to create a Traceability Matrix relating Requirements to Test Cases. Since approaches to testing software have also evolved with rigorous systematic approaches and advanced tools to automate some of the testing tasks. Section 2 will expose students to Test Automation using an automation tool, Object mapping and repository creation, Exception handling, logging and reporting, and Creation and Execution of Automation scripts.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 7007 Systems Analysis and Database Management Systems (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/ archives/2021-2022/subject-details/infs7007/) **Legacy Code:** 300977
The main purpose of this unit is to provide students with an opportunity to gain knowledge and experience of developing a business information system in a systematic way. This unit examines the general methodology of systems development life cycle, including different phases and various modeling techniques. The unit specialises in the development of a full systems analysis and design documentation by using system development methodologies, including data analysis and modeling methods. It extensively covers database design techniques where students will use a set of business rules obtained from requirements and use case analysis, and database implementation using a commercial database management system. At the same time, student learning, intercommunication and collaborative working skills are enhanced by student participation in tutorial presentations and group assignments.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 7008 Systems and Network Security (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/ archives/2021-2022/subject-details/infs7008/) **Legacy Code:** 300696
This unit is concerned with the protection of information in computing systems and when transferred over networks. It addresses techniques for securing networking applications and their security arrangements. Students gain an understanding of the fundamentals of the provision of security in networks and systems, as well as an appreciation of some of the problems that arise in devising practical security solutions.
Level: Postgraduate Coursework Level 7 subject
Equivalent Subjects: LGYA 5882 - Distributed Systems and Network Security
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 7009 Web Technologies (10 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/ archives/2021-2022/subject-details/infs7009/) **Legacy Code:** 300693
This unit covers the technologies required for the construction and maintenance of web pages and web sites. It focuses on the web page and site design, markup languages, client-side technologies such as Cascading Style Sheets and Javascript, as well as server-side technologies such as web servers, database connectivity, and server side scripting. It also includes the use of multi-media, security, access rights, and the exploration of some of the latest technological wonders populated on the Internet. This unit is heavily orientated towards practical experience based on amplifying the theoretical concepts.
Level: Postgraduate Coursework Level 7 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject

INFS 9001 Higher Degree Research Thesis - Information Systems (20 Credit Points)
Subject Details (https://hbook.westernsydney.edu.au/ archives/2021-2022/subject-details/infs9001/) **Legacy Code:** 800222
Level: PhD and Research Masters Level 9 subject
Restrictions: Please see the Subject Details page for any restrictions for this subject