

Computer Science Bandung

Introduction

In the new millennium and the global era, the role of information and automation in the various domains and activities of the business industry are becoming more important. The successes of the activities are determined by how computer science can support in managing the information. Information must be up-to-date, accurate and comprehensive to allow decision makers to determine the enterprise's strategy. Furthermore, automation can facilitate human activity, accelerate the pace of work and make it more effective and efficient, while also increasing productivity in various activities. The development of communication and computer technology has made it possible to get information that is rapid, exact, and accurate. It also increases the application of automation in various fields such as industry, business, office affairs and development of science and technology.

The Computer Science Program was founded in September 1987, under STMIK Bina Nusantara; it became one of the programs under the coordination of the Faculty of Computer Science, Bina Nusantara University in December 1998.

Computer Science Program, Bina Nusantara University @Bandung emphasizes the processes, techniques, and tools that go into developing computer-based systems, with specialities in Internet of Things(IoT), intelligent systems, software engineering, data base system, game technology, mobile technology and computer security.

Vision

A world class study program by providing excellent educational experiences in Computer Science, which focuses on developing creative technologysolutions, fostering and empowering the society in building and serving the nation.

Mission

The mission of Computer Science Department is to contribute to the global community through the provision of world-class education by:

1. Educating students to effectively apply their educational experiences in developing creative solutions in computer science, to solve real-world problems.
2. Preparing graduates to develop exemplary soft skills & technical skills required as computer science professionals, leaders, and entrepreneurs in global market.
3. Promoting high impact computer science research that contributes to the nation.
4. Fostering BINUSIAN as computer science lifelong learners through self- enrichment.
5. Empowering BINUSIAN to continuously improve society's quality of life through knowledge in computer science.

Program Objective

The objectives of the program are:

1. Graduates will become successful professionals in ICT fields
2. Graduates will obtain employment in global companies or become entrepreneurs
3. Graduates will obtain professional certification or continue their study to the postgraduate

Student Outcomes

After completing the study, graduates are:

1. Able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Able to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of computer science.
3. Able to communicate effectively in a variety of professional contexts.
4. Able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Able to function effectively as a member or leader of a team engaged in activities appropriate to computer science.
6. Able to apply computer science theory and software development fundamentals to produce computing-based solutions.

Prospective Career of the Graduates

After finishing the program, the graduate of Computer Science Program could follow a career as:

- | | | |
|--------------------------------|---------------------------------------|---------------------------|
| 1. Software Engineer/Developer | 5. Database Specialist | 9. Researcher |
| 2. System Analyst/Developer | 6. Artificial Intelligence Specialist | 10. Multimedia Programmer |
| 3. Web Engineer/Developer | 7. Data Scientist | 11. Lecturer/Trainer |
| 4. Computer Network Specialist | 8. IT Support/Consultant | |

Curriculum

The curriculum of the Computer Science Program has been developed in line with the National Curriculum. Also, the local content has been developed in line with the Computer Science Curriculum standard of ACM (Association for Computing Machinery), several local and foreign universities, and market trends, so that the graduates of the Computer Science Program are expected to be able to face competition at both a national and international level.

Generally, the subjects of the curriculum 2019 are divided into these following groups of subjects

Mathematics Group (Science)

The objective of this group is to provide an understanding of mathematics as one of the principal foundations of computer science. Another objective is to give an understanding of scientific methodology (data collection, hypothesis, research, analysis) in problem solving.

Character Building Group (Professional Practices)

The objective of this group is to develop the personal strengths of the student and to provide him or her with a professional character, professionalism in their field, management skills, oral and written communication skills, understanding of business ethic, ability to work as a team, and to develop a "Binusian" Character.

Core Group

The objective of this group is to provide a grounding in Computer Science through practice as well as applied theory which is required by business both now and in the future. The subjects that are included in this group are programming, algorithm design and analysis, software engineering, databases systems, computer graphics, multimedia technology, human and computer interaction, operation systems, computer architecture, and computer network.

Concentration Subject (Stream)

The objective of this group is to give students the opportunity to obtain a deep understanding of a range of disciplines in computer science. The students are expected to develop their skills and master the techniques which will allow them to research both their thesis and/or to continue their studies.

The Concentration subjects (Stream) provide:

1. Internet of Things: to explore the various techniques and implementation of IoT.
2. Digital Creative Technology: focuses on competencies' development in smart software application development field based on big data analytics to support business innovation through digital transformation in Industry 4.0 era (Digital Business Innovation and Transformation).
3. Intelligent Systems: to explore the various techniques of computer intelligence that can be applied to solving problems.
4. Database Technology: to explore the various techniques of database technology that can be applied to solving problems.
5. Interactive Multimedia: to explore computer interactive multimedia applications, based on computer programming, design tools, and software engine.
6. Network Technology: to explore computer networking which consists of installation, administration, and computer networking management.
7. Game Technology: to explore development of game applications, based on computer programming, design tools, and software engine.
8. Data Science: to explore various technology tools, statistics, and machine learning with the goal of discovering hidden patterns from the raw data. It can enhance productivity and create significant value.
9. Cyber Security: to explore specialized computer security related techniques and implementation
10. Software Engineering: to explore the various methodologies and software engineering equipment.

Entrepreneur and Employability Skill (Internship)

The objective of this group of subject is to prepare students with professional experience, work ethics and to experience the working environment. The students are expected to apply and to practice their knowledge in the real working area such as industry, research lab, and also an entrepreneur startup. They are also expected to give reports as the result of the subjects.

Course Structure

| Sem | Code | Course Name | SCU | Total |
|-----|---|---|-----|-------|
| 1 | CHAR6034031 | Character Building: Pancasila | 2 | 20 |
| | MATH6128031 | Discrete Mathematics | 4 | |
| | MATH6129031 | Linear Algebra | 2 | |
| | COMP6421031 | Algorithm and Programming ²⁾ | 4/2 | |
| | COMP6839031 | Program Design Methods ¹⁾ | 2 | |
| | LANG6097031 | Indonesian | 2 | |
| | STAT6190031 | Basic Statistics | 2 | |
| | Foreign Language Courses ³⁾ | | | |
| 2 | CHAR6035031 | Character Building: Kewarganegaraan | 2 | 20 |
| | COMP6458031 | Data Structures ^{1), 2)} | 4/2 | |
| | MATH6135031 | Calculus | 4 | |

| Sem | Code | Course Name | SCU | Total |
|---|---|--|-----|-------|
| | ENTR6522032 | Entrepreneurship: Ideation | 2 | |
| | COMP6846031 | Human and Computer Interaction ²⁾ | 2/1 | |
| | MATH6192031 | Scientific Computing | 2/1 | |
| | Foreign Language Courses ³⁾ | | 0 | |
| 3 | CHAR6038031 | Character Building: Agama | 2 | 21 |
| | COMP6472031 | Algorithm Design and Analysis ¹⁾ | 4 | |
| | CPEN6249031 | Computer Networks ²⁾ | 2/1 | |
| | COMP6468031 | Artificial Intelligence | 4 | |
| | SCIE6065031 | Computational Physics | 2/1 | |
| | COMP6847031 | Database Technology | 2/1 | |
| | COMP6848031 | Object Oriented Programming ¹⁾ | 2 | |
| | Foreign Language Courses ³⁾ | | 0 | |
| | COMP6715031 | Research Methodology in Computer Science ¹⁾ | 2 | 9 |
| | SCIE6066031 | Computational Biology | 2/1 | |
| | COMP6466031 | Software Engineering ²⁾ | 4 | |
| | Streaming: Internet Of Things (IoT) ⁴⁾ | | | 12 |
| | COMP6849031 | Embedded System | 2/2 | |
| | COMP6850031 | Multimedia & Mixed Reality | 2/1 | |
| | MOBI6072031 | Mobile Programming | 2/1 | |
| | COMP6655031 | Cyber Security in IoT | 2 | 10 |
| | Streaming: Digital Creative Technology (DCT) ⁵⁾ | | | |
| | COMP6679004 | Web Programming ²⁾ | 4 | |
| COMP6677004 | Multimedia Systems | 2/2 | 12 | |
| COMP6856004 | Popular Programming Technology ¹⁾ | 2 | | |
| Streaming: Software Engineering (SE) ⁶⁾ | | | | |
| 4 | COMP6106001 | Code Reengineering | 4 | 12 |
| | COMP6114001 | Pattern Software Design | 2/2 | |
| | COMP6884001 | Agile Software Development ^{1), 2)} | 4 | |
| | Streaming: Intelligent System (IS) ⁶⁾ | | | 12 |
| | COMP6885001 | Natural Language Processing ^{1), 2)} | 2/2 | |
| | COMP6577001 | Machine Learning | 4 | |
| | COMP6822001 | Speech Recognition | 2/2 | 12 |
| | Streaming: Interactive Multimedia (IM) ⁶⁾ | | | |
| | COMP8129001 | User Experience ^{1), 2)} | 2/2 | |
| | COMP6823001 | Multimedia System ²⁾ | 2 | |
| COMP7094001 | Multimedia Programming Foundation ¹⁾ | 2/2 | 12 | |
| COMP7128001 | Game Design | 2 | | |
| Streaming: Database Technology (DT) ⁶⁾ | | | | |
| COMP6481001 | Database Design | 2/1 | | |
| COMP6579001 | Big Data Processing ^{1), 2)} | 2/2 | 12 | |
| COMP6710001 | Distributed Cloud Computing | 2/1 | | |
| COMP6886001 | Data Analytics | 2 | | |

| Sem | Code | Course Name | SCU | Total |
|---|---|--|-----|-------|
| | Streaming: Network Technology (NT) ⁶⁾ | | | 12 |
| | COMP6824001 | Computer Security ¹⁾ | 2/2 | |
| | COMP6584001 | Network and System Programming ^{1), 2)} | 2/2 | |
| | COMP6827001 | Linux System Administration and Security | 2/2 | |
| | Streaming: Game Application Technology (GAT) ⁶⁾ | | | 10 |
| | GAME6069001 | Game Programming ^{1), 2)} | 4 | |
| | GAME6082001 | Game Animation ^{1), 2)} | 2 | |
| | MOBI6006001 | Mobile Community Solution ^{1), 2)} | 2/2 | 9 |
| | Streaming: Mobile Application Technology (MAT) | | | |
| | COMP6823001 | Multimedia Systems ²⁾ | 2 | |
| | MOBI6006001 | Mobile Community Solution ^{1), 2)} | 2/2 | |
| | MOBI6069001 | Wearable Technology ^{1), 2)} | 3 | 10 |
| | Streaming: Data Science (DS) ⁶⁾ | | | |
| | DTSC6013001 | Data Mining and Visualization ^{1), 2)} | 2 | |
| | DTSC6011001 | Survey and Sampling Methods | 2 | |
| | COMP6577001 | Machine Learning | 4 | 10 |
| | DTSC6003001 | Big Data Infrastructure and Technology ¹⁾ | 2 | |
| | Streaming: Cyber Security (Cyber) ⁶⁾ | | | |
| | COMP6842001 | Server and Network Administration ^{1), 2)} | 2 | |
| | COMP6549001 | Software Security ^{1), 2)} | 2 | 10 |
| | COMP6844001 | Mobile Penetration Testing ²⁾ | 2/2 | |
| | LAWS6110001 | Cyber Law | 2 | |
| | Streaming: Mobile And Game Technology ⁷⁾ | | | 12 |
| | COMP6897051 | Game Design & Programming | 2/2 | |
| | COMP6898051 | User Experience | 2 | |
| | COMP6899051 | Machine Learning | 2 | |
| COMP6900051 | Mobile Embedded Systems | 4 | 2 | |
| General Course ⁸⁾ | | | | |
| COMP6955004 | Database Design | 2 | 0 | |
| Foreign Language Courses ³⁾ | | | | |
| Minor Program ^{4), 5), 6)} | | | 8 | 8 |
| Free Electives ⁶⁾ | | | 12 | 12 |
| 5 | COMP6470031 | Compilation Techniques | 4 | 8 |
| | COMP6716031 | Operating System | 2 | |
| | ENTR6524032 | Entrepreneurship: Market Validation | 2 | |
| | Streaming: Internet Of Things (IoT) ⁴⁾ | | | 8 |
| | COMP6757031 | Computer vision in IoT | 2/2 | |
| | COMP6882031 | IoT Development and Architecture | 2/2 | 10 |
| | Streaming: Digital Creative Technology (DCT) ⁵⁾ | | | |
| | COMP6678004 | Big Data Analytics for Business | 4 | |
| | MOBI6063004 | Mobile Application Programming ²⁾ | 4 | |
| | COMP6680004 | Data Visualization ¹⁾ | 2 | |

| Sem | Code | Course Name | SCU | Total |
|-----|---|--|-----|-------|
| | Streaming: Software Engineering (SE) ⁶⁾ | | | |
| | COMP6122001 | Framework Layer Architecture | 2/2 | 8 |
| | COMP6115001 | Object Oriented Analysis & Design ¹⁾ | 2/2 | |
| | Streaming: Intelligent System (IS) ⁶⁾ | | | |
| | COMP7116001 | Computer Vision ¹⁾ | 2/2 | 8 |
| | COMP6826001 | Deep Learning | 2/2 | |
| | Streaming: Interactive Multimedia (IM) ⁶⁾ | | | |
| | COMP6583001 | Computer Graphics | 2/2 | 8 |
| | COMP7139001 | Game Programming ¹⁾ | 4 | |
| | Streaming: Database Technology (DT) ⁶⁾ | | | |
| | COMP6590001 | Geographical Information System ¹⁾ | 2/2 | 8 |
| | COMP6140001 | Data Mining | 2/2 | |
| | Streaming: Network Technology (NT) ⁶⁾ | | | |
| | COMP68250001 | Introduction to Cloud Infrastructure | 2 | 8 |
| | COMP7142001 | Popular Network Technology | 2/2 | |
| | COMP6113001 | Network Design | 2 | |
| | Streaming: Game Application Technology (GAT) ⁶⁾ | | | |
| | GAME6093001 | Serious Game & Gamification | 2 | 12 |
| | GAME6084001 | Game Development Capstone Project ^{1), 2)} | 4 | |
| | GAME6071001 | 3D Modeling for Games ^{1), 2)} | 2 | |
| | GAME6092001 | Fundamental in Game Balancing | 2 | |
| | GAME6091001 | Advanced Game Development | 2 | |
| | Streaming: Mobile Application Technology (MAT) | | | |
| | MOB6026001 | Mobile Cloud Computing ¹⁾ | 2/2 | 13 |
| | MOBI6009001 | Mobile Multimedia Solution ²⁾ | 2/2 | |
| | MOBI6068001 | Web Design ^{1), 2)} | 2 | |
| | MOBI6070001 | Embedded System and Internet of Things ^{1), 2)} | 3 | |
| | Streaming: Data Science (DS) ⁶⁾ | | | |
| | DTSC6010001 | Bayesian Data Analysis | 2 | 12 |
| | COMP6826001 | Deep Learning | 2/2 | |
| | DTSC6002001 | Data Management and Organization ¹⁾ | 2 | |
| | DTSC6008001 | Text Mining | 2 | |
| | DTSC6004001 | Data Security | 2 | |
| | Streaming: Cyber Security (Cyber) ⁶⁾ | | | |
| | COMP6544001 | Network Penetration Testing ²⁾ | 2/2 | 12 |
| | COMP6695001 | Secure Programming ^{1), 2)} | 2 | |
| | COMP6843001 | Reverse Engineering and Binary Exploitation | 2 | |
| | COMP6646001 | Computer Forensic ^{1), 2)} | 2 | |
| | COMP6873001 | Blockchain Fundamental | 2 | |
| | Streaming: Mobile And Game Technology ⁷⁾ | | | |
| | COMP6903051 | Computer Vision | 2/2 | 12 |
| | COMP6905051 | Mobile and Game Development Capstone Project | 4 | |

| Sem | Code | Course Name | SCU | Total |
|-----|---|---------------------------------------|------------------------------|-------|
| | Elective Course for IOT⁸⁾ & 11) | | | |
| | COMP6921031 | Web Development | 2 | 2 |
| | COMP6922031 | Cloud Computing | 2 | 2 |
| | Elective Course⁹⁾ | | | |
| | MOBI6059001 | Mobile Programming | 2 | 2 |
| | COMP6586001 | Embedded Systems | 2 | 2 |
| | COMP6226001 | Competitive Programming ¹⁾ | 2 | 2 |
| | COMP6681001 | Web Programming | 2 | 2 |
| | General Course for MGT¹⁰⁾ | | | |
| | COMP6923051 | Hybrid Application Development | 2 | 2 |
| | Minor Program^{4), 5), 6)} | | 12 | 12 |
| | Free Electives⁶⁾ | | 8 | 8 |
| 6 | Enrichment Program I | | 20 | 20 |
| 7 | Enrichment Program II | | 20 | 20 |
| 8 | COMP6747031 | Pre-Thesis | 2 | 6 |
| | COMP6748031 | Thesis | 4 | |
| | COMP6501031 | Thesis | 6 | 6 |
| | | | Total Credits 146 SCU | |

1) This course is delivered in English

2) Global Learning System course

3) Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the detail.

4) Conducted in BINUS@Bandung

5) Conducted in BINUS@Malang

6) Conducted in BINUS@Greater Jakarta

7) Conducted in BINUS@Semarang

For 4th Semester:

8) General Course must be chosen by mobility students to BINUS@Malang (include streaming and minor program)

For 5th Semester

8) Students @Bandung must choose one of the elective course (2 credits).

9) Students must choose 1 course (2 credits) from the list of elective courses for Minor Program Jakarta or Streaming SE, IS, IM,DT, NT.

10) Students must choose course Hybrid Application Development from the elective course for Minor Metaverse in Business and Streaming MGT

11) Students must choose 1 course (2 credits) from the list of elective courses only for Minor Designpreneur

Streaming/Minor/Free Electives:

-) In 4th Semester, Students are required to choose one study plans, between Streaming, Minor Program, Free Electives. Please refer to the Minor program, free electives and cross streaming course list appendix for details.

Foreign Language Courses:

Students will take foreign language courses according to BINUS University English proficiency test results. See foreign language courses appendix for the details. Students must pass with a minimum Grade of C.

Pre-thesis (2 SCU) & Thesis (4 SCU) can be taken in the 6th and/or 7th semester by the students who meet the requirements from the Study Program/Program

Appendix Foreign Language Courses

| Foreign Language Courses | | SCU |
|--------------------------|-------------------------------|-----|
| ENGL6270031 | English for Frontrunners | 0 |
| ENGL6271031 | English for Independent Users | 0 |
| ENGL6272031 | English for Professionals | 0 |
| JAPN6209031 | Basic Japanese Language | 0 |
| CHIN6192031 | Basic Chinese Language | 0 |

1. Students with Binus University English Proficiency Test score less than 437 are required to take English for Frontrunners and English for Independent Users.
2. Students with Binus University English Proficiency Test score less than 520 are required to take English for Independent Users and English for Professionals.
3. Students with Binus University English Proficiency Test score equal to or greater than 520 are required to take English for Professionals and choose Basic Japanese Language or Basic Chinese Language.
4. Students are required to pass the foreign language courses before they take enrichment.
5. Students can see the requirements to pass the foreign language courses at BINUSMAYA – Beelingua.

Minor Scheme

| Minor Program | Semester 4 | Semester 5 |
|---------------------------------------|------------|------------|
| Minor @ Binus Kemanggisan | | |
| Digital Ecosystem | - | - |
| Human Capital in Digital Workplace | v | v |
| Sustainable Development | v | v |
| Cross Cultural Communication | v | v |
| Interactive & Users Experience Design | v | v |
| Data Analytics | v | v |
| Robotic Process Automation | v | v |
| Minor @ Binus Alam Sutera | | |
| Digital Transformation | v | v |
| Minor @ Binus Bekasi | | |
| Virtual Services Experience | - | - |
| Culinary | v | v |
| Minor @ Binus Malang | | |
| Digital Technopreneur | v | v |
| Minor @ Binus Bandung | | |
| DesignPreneur | v | v |
| Minor @ Binus Semarang | | |
| Metaverse in Business | v | v |

The minor programs can change anytime based on the trends of knowledge and industry each year. Students will receive information about the updated minor programs during the registration period.

1. Minor Program : Human Capital in Digital Workplace

Fundamental Courses

| Course | SCU |
|--|-----------|
| PSYC6174027 Psychology in The Workplace | 4 |
| MGMT6349005 Digital Workplace Strategy | 4 |
| ISYS6551003 Digital Workplace and Technology | 4 |
| LAWS6157028 Legal Aspects in Digital Workplace | 4 |
| PSYC6175027 Human Resources Development | 4 |
| Total SCU | 20 |

2. Minor Program: Sustainable Development

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYE6154011 Sustainable Design and Manufacture | 4 |
| CPEN6217010 Digital for Sustainable Development | 4 |
| ARCH6119014 Introduction to Sustainable Development | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|---|-----------|
| ISYE6155011 Occupational, Health, Safety, and Administration in Engineering | 2 |
| DSGN6835008 Engineering Material | 4 |
| CIVL6118013 Engineering Economic | 4 |
| Total SCU | 10 |

3. Minor Program : Cross Cultural Communication

Fundamental Courses

| Course | SCU |
|--|-----------|
| CHIN6132026 Chinese Conversation in Daily Activities | 4 |
| COMM6502019 Communication in Diversity | 2 |
| BUSS6170025 Asian Business Ethics | 4 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|--|-----------|
| CHIN6134026 Chinese Conversation in Business Communication | 4 |
| LAWS6158028 Private International Law | 2 |
| INTR6135029 Comparative Politics | 4 |
| Total SCU | 10 |

4. Minor Program : Interactive & Users Experience Design

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6553003 User-Centered Research and Evaluation | 4 |
| PSYC6176027 Psychology and User Experience | 4 |
| DSIN6003007 Fundamental of Interface Design | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|---|-----------|
| ISYS6554003 Core Principles: Interactive Design | 4 |
| DSGN6837007 Digital Design Production | 4 |
| ISYS6556003 Information Architecture | 2 |
| Total SCU | 10 |

5. Minor Program : Data Analytic

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6680003 Introduction to Data Analytics | 2 |
| ISYS6681003 Data Management & Descriptive Analytics | 4 |
| STAT6198049 Statistical for Decision Making | 4 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|--|-----------|
| ISYS6682003 Application of Predictive Analytics to Business Data | 4 |
| ISYS6683003 Prescriptive Analytics and Optimization | 4 |
| MKTG6312005 Digitalization of Markets and Consumption | 2 |
| Total SCU | 10 |

6. Minor Program : Robotic Process Automation

Fundamental Courses

| Course | SCU |
|--|-----------|
| COMP6857001 Basic Programming for Automation | 2 |
| COMP6858001 RPA Concept & Design | 2 |
| ISYS6684003 RPA Developer Fundamental | 4 |
| ISYS6687003 Business Process Improvement | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|--|-----|
| ISYS6685003 RPA Developer Advance | 4 |
| ISYS6686003 RPA Business Analytics Fundamental | 4 |

| Course | SCU |
|-------------------------------------|-----------|
| COMP6859001 Intelligence Automation | 2 |
| Total SCU | 10 |

7. Minor Program: Digital Transformation

Fundamental Courses

| Course | SCU |
|---|-----------|
| ISYS6559003 Business Models and Technology Innovation | 4 |
| ISYS6557003 Business Data Management | 4 |
| MGMT6484005 Digital Strategy | 2 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|---|-----------|
| ISYS6695003 Digital Marketing Analysis | 4 |
| STAT6200049 Practical Statistics for Digital Business | 4 |
| ISYS6560003 Success Factor for Leading Digital Transformation | 2 |
| Total SCU | 10 |

8. Minor Program: Culinary

Fundamental Courses

| Course | SCU |
|--|-----------|
| HTMN6108021 Food and Beverage Management | 2 |
| HTMN6008021 Kitchen Operation | 4 |
| HTMN6128021 Pastry and Bakery Operation | 4 |
| Total SCU | 10 |

SCU for HTMN6008021, HTMN6128021 are practical

Supporting Courses

| Course | SCU |
|----------------------------------|-----------|
| HTMN6155021 Indonesian Cuisine | 4 |
| HTMN6125021 Restaurant Operation | 4 |
| HTMN6154021 Culinary Tourism | 2 |
| Total SCU | 10 |

SCU for HTMN6155021, HTMN6125021 are practical

9. Minor Program: Digital Technopreneur

Fundamental Courses

| Course | SCU |
|---|-----------|
| ENTR6528002 The Entrepreneurial Innovator | 4 |
| DSGN6839006 Interactive Design | 4 |
| COMM6504018 Digital Branding | 2 |
| ENPR6196002 Market Intelligence | 2 |
| COMP6687004 User Experience Design | 4 |
| DSGN6844023 Prototyping Digital Future | 4 |
| Total SCU | 20 |

10. Minor Program: Designpreneur
Fundamental Courses

| Course | SCU |
|--|-----------|
| ENTR6525032 Fundamental of Designpreneur | 4 |
| COMP6688031 UI/UX Development | 4 |
| DSGN6797034 Surface Packaging Design | 4 |
| ENTR6526032 Hospitality and Service Design | 4 |
| DSGN6843033 Project Design | 4 |
| Total SCU | 20 |

11. Minor Program: Metaverse in Business
Fundamental Courses

| Course | SCU |
|-------------------------------|-----------|
| ISYS6777052 Business Model | 2 |
| COMP6889051 Virtual Reality | 4 |
| COMP6890051 Augmented reality | 4 |
| Total SCU | 10 |

Supporting Courses

| Course | SCU |
|------------------------------|-----------|
| ISYS6778052 Data Analytics | 2 |
| DSGN6981053 Design Thinking | 4 |
| DSGN6980053 Interface Design | 4 |
| Total SCU | 10 |

Appendix: Free Electives (4th & 5th Semester)

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|-----------------------------------|-------------|--|-----|----------|
| 1 | Business Creation | ENTR6580005 | Digital Business Transformation | 2 | 4 |
| 2 | Business Creation | ENTR6494005 | Managing Growing Business | 2 | 5 |
| 3 | Business Management | MGMT6401005 | Digital Supply Chain Management | 2 | 4 |
| 4 | Business Management | MKTG6298005 | Service Marketing Management | 2 | 4 |
| 5 | Business Management | MGMT6365005 | Current Issue in Service Business and Technology | 2 | 5 |
| 6 | International Business Management | BUSS6162005 | Market Entry Strategy | 2 | 4 |
| 7 | International Business Management | MGMT6370005 | E-Business for International Business | 2 | 5 |
| 8 | Management | BUSS6088005 | Current Issue in Business and Technology | 2 | 4 |
| 9 | Management | BUSS6109005 | Business Development | 4 | 4 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|-------------------------|-------------|---|-----|----------|
| 10 | Management | BUSS6173005 | Managing Innovation and Knowledge | 4 | 4 |
| 11 | Management | ISYS6079005 | E-Business System | 4 | 4 |
| 12 | Management | MGMT6276005 | Leadership & Managing Human Capital in Organization | 4 | 4 |
| 13 | Management | MGMT6374005 | Analysis on E-Business Investment | 4 | 4 |
| 14 | Management | ISYS8175005 | E-Business Strategy and Implementation | 4 | 5 |
| 15 | Management | MGMT6029005 | Knowledge Management | 2 | 5 |
| 16 | Management | MGMT6063005 | Strategic Management | 2 | 5 |
| 17 | Management | MGMT6297005 | Operations Management | 4 | 5 |
| 18 | Management | MGMT6341005 | Strategic Management | 4 | 5 |
| 19 | Accounting | ACCT6358020 | Management Audit | 4 | 4 |
| 20 | Accounting Bekasi | ACCT6382020 | Business Process Analysis and Solution | 2 | 4 |
| 21 | Accounting Bekasi | ACCT6389020 | Big Data Analytics in Accounting & Finance | 2 | 5 |
| 22 | Marketing Communication | COMM6541019 | Digital Corporate Communication | 2/2 | 5 |
| 23 | Marketing Communication | COMM6543019 | Digital Brand Communication | 2/2 | 5 |
| 24 | Tourism | TRSM6208022 | Tourism Innovation and Product Development | 4 | 5 |
| 25 | Civil Engineering | CIVL6025013 | Hydrology | 2 | 5 |
| 26 | Civil Engineering | CIVL6035013 | Airport Engineering | 2 | 5 |
| 27 | Civil Engineering | CIVL6037013 | Railway Engineering | 2 | 5 |
| 28 | Civil Engineering | CIVL6080013 | Construction Methods & Heavy Equipment | 2 | 5 |
| 29 | Civil Engineering | COMP6046013 | Computer Applications in Construction Management | 2 | 5 |
| 30 | Computer Engineering | CPEN6126010 | Cross Platform Application Development | 4 | 5 |
| 31 | Computer Engineering | CPEN6225010 | Telco Network & Switching System | 2 | 5 |
| 32 | Computer Engineering | CPEN6232010 | Cloud Technology Practice | 2 | 5 |
| 33 | Food Technology | FOOD6073015 | Current Issues in Food Technology | 2 | 4 |
| 34 | Industrial Engineering | ISYE6041011 | Engineering Economy | 2 | 4 |
| 35 | Industrial Engineering | ISYE6113011 | Leadership & Organizational Behaviour | 2 | 4 |
| 36 | Industrial Engineering | ISYE6181011 | System Engineering & Analysis | 2 | 4 |
| 37 | Computer Science | COMP6586001 | Embedded Systems | 2 | 5 |
| 38 | Computer Science | COMP6226001 | Competitive Programming | 2 | 5 |
| 39 | Computer Science | MOBI6059001 | Mobile Programming | 2 | 5 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|---------------------------------|-------------|--------------------------------------|-----|----------|
| 40 | ComputerScience | COMP7116001 | Computer Vision | 2/2 | 5 |
| 41 | ComputerScience | COMP6821001 | Web Programming | 2 | 5 |
| 42 | ComputerScience | COMP6590001 | Geographical InformationSystem | 2/2 | 5 |
| 43 | Game Application and Technology | GAME6082001 | Game Animation | 2 | 4 |
| 44 | Game Application andTechnology | GAME6085001 | Object Oriented Game Programming | 2 | 5 |
| 45 | Animation | DSGN6693007 | Motion Graphic | 4 | 4 |
| 46 | Animation | DSGN6694007 | Visual Effect (VFX) | 4 | 4 |
| 47 | Animation | DSGN6695007 | Asset Creation | 4 | 4 |
| 48 | Animation | DSGN6689007 | Concept Art & ProductionDesign | 2 | 5 |
| 49 | Creative Advertising | DSGN6671007 | Creative Writing for Commercials | 4 | 4 |
| 50 | Film | FILM6026009 | History of IndonesianCinema | 2 | 4 |
| 51 | New Media | DSGN6743007 | Digital Graphic Reproduction | 4 | 4 |
| 52 | Interior Design | DSGN6611008 | Business in InteriorDesign | 2 | 4 |
| 53 | Business Information Technology | ISYS6574003 | Information Retrieval | 4 | 4 |
| 54 | Business Information Technology | ISYS6577003 | Machine Learning & Foundations | 2 | 4 |
| 55 | Business Information Technology | ISYS6606003 | Smart Application | 2 | 4 |
| 56 | Business Information Technology | ISYS6579003 | Knowledge-Based AI:Cognitive Systems | 4 | 5 |
| 57 | InformationSystems | BUSS6043003 | Introduction to E-Business | 4 | 4 |
| 58 | InformationSystems | ISYS6016003 | Social MediaFundamental | 2 | 4 |
| 59 | InformationSystems | ISYS6203003 | Mobile Application Development | 2/2 | 4 |
| 60 | InformationSystems | ISYS6210003 | Data Visualization | 2 | 4 |
| 61 | InformationSystems | ISYS6285003 | Digital and New Media | 2 | 4 |
| 62 | InformationSystems | ISYS6594003 | Coding for Finance | 2 | 4 |
| 63 | InformationSystems | ISYS6196003 | Business Analytics | 2 | 5 |
| 64 | InformationSystems | ISYS6199003 | Data & Text Mining | 4 | 5 |
| 65 | InformationSystems | ISYS6202003 | Social Informatics | 4 | 5 |
| 66 | InformationSystems | ISYS6289003 | Collaborative Computing | 4 | 5 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|----|---|-------------|--|-----|----------|
| 67 | Information Systems | ISYS6402003 | Business Analytics | 2/2 | 5 |
| 68 | Information Systems | ISYS8066003 | Business Process Management | 4 | 5 |
| 69 | Information Systems Accounting & Auditing | ISYS6608003 | IT Service & Risk Management | 2 | 5 |
| 70 | Data Science | DTSC6007001 | Deep Learning | 2 | 4 |
| 71 | Data Science | DTSC6008001 | Text Mining | 2 | 5 |
| 72 | Cyber Security | COMP6646001 | Computer Forensic | 2 | 5 |
| 73 | Mobile Application & Technology | MOBI6068001 | Web Design | 2 | 5 |
| 74 | International Relations | INTR8043029 | International Media and State Role | 4 | 4 |
| 75 | International Relations | INTR6162029 | Multiculturalism and Digital Society | 2 | 5 |
| 76 | Business Law | LAWS6017028 | Intellectual Property Rights | 4 | 4 |
| 77 | Business Law | LAWS6110028 | Cyber Law | 2 | 4 |
| 78 | Business Law | LAWS6171028 | Business Competition & Consumer Protection Law | 2 | 4 |
| 79 | Business Law | LAWS6052028 | Bankruptcy Law | 2 | 5 |
| 80 | Business Law | LAWS6167028 | Legal Philosophy & Professional Ethics | 2 | 5 |
| 81 | Business Law | LAWS6176028 | Tax Law | 2 | 5 |
| 82 | Chinese Literature | CHIN6157026 | Chinese Business for Etiquette (Beginner) | 4 | 4 |
| 83 | Chinese Literature | CHIN6157026 | Chinese Business for Etiquette (Beginner) | 4 | 5 |
| 84 | English Literature | ENGL6169024 | English for Professionals | 2 | 4 |
| 85 | English Literature | SOCS6021024 | Social and Digital Media Writing | 2 | 4 |
| 86 | English Literature | ENGL6244024 | Social Media Broadcasting | 4 | 5 |
| 87 | Primary Teacher Education | EDUC6018030 | Micro Teaching | 4 | 4 |
| 88 | Primary Teacher Education | EDUC6041030 | Current Issues in Primary Education | 2 | 4 |
| 89 | Primary Teacher Education | EDUC6062030 | International and National Curriculum | 2 | 4 |
| 90 | Primary Teacher Education | EDUC6033030 | Physical Education | 2 | 5 |
| 91 | Primary Teacher Education | EDUC6061030 | ICT for Distance Learning | 2 | 5 |
| 92 | Psychology | PSYC6124027 | Psychology of Early Childhood Education | 4 | 4 |

| No | Course Owner Department | Course Code | Course Name | SCU | Semester |
|-----|-----------------------------------|-------------|---|-----|----------|
| 93 | Psychology | PSYC6125027 | Psychology of SpecialNeeds Education | 4 | 4 |
| 94 | Psychology | PSYC6130027 | Human PerformanceTechnology | 4 | 4 |
| 95 | Business Creation | ENTR6580005 | Digital Business Transformation | 2 | 4 |
| 96 | Business Creation | ENTR6494005 | Managing GrowingBusiness | 2 | 5 |
| 97 | Business Management | MGMT6401005 | Digital Supply Chain Management | 2 | 4 |
| 98 | Business Management | MKTG6298005 | Service Marketing Management | 2 | 4 |
| 99 | Business Management | MGMT6365005 | Current Issue in ServiceBusiness and Technology | 2 | 5 |
| 100 | International Business Management | BUSS6162005 | Market Entry Strategy | 2 | 4 |

Enrichment Program I (6th Semester) & Enrichment Program II (7th Semester):

-) Student will take one of enrichment program tracks (off campus). See enrichment appendix for the tracks detail.

Enrichment Track Scheme

| Track | Semester 6 | | | | | | | Semester 7 | | | | | | | |
|-------|------------|----|----|----|----|----|-----|------------|----|----|----|----|----|----|-----|
| | IN | RS | EN | CD | SA | IS | etc | IN | RS | EN | CD | SA | IS | FS | etc |
| 1 | v | | | | | | | v | | | | | | | |
| 2 | v | | | | | | | | | | | | | v | |
| 3 | | v | | | | | | | v | | | | | | |
| 4 | | v | | | | | | | | | | | | v | |
| 5 | | | v | | | | | | | v | | | | | |
| 6 | | | | v | | | | v | | | | | | | |
| 7 | | | | v | | | | | | | v | | | | |
| 8 | | | | v | | | | | | | | v | | | |
| 9 | | | | v | | | | | | | | | v | | |
| 10 | | | | | v | | | v | | | | | | | |
| 11 | | | | | v | | | | | | v | | | | |
| 12 | | | | | v | | | | | | | | v | | |
| 13 | | | | | | v | | v | | | | | | | |
| 14 | | | | | | v | | | | | v | | | | |
| 15 | | | | | | v | | | | | | v | | | |
| 16 | | | | | | | v | v | | | | | | | |
| 17 | | | | | | | v | | | | v | | | | |
| 18 | | | | | | | v | | | | | v | | | |

Description:

Student will take one of enrichment program tracks

Note:

| | | | |
|----|-----------------------------------|-----|--|
| IN | : Certified Internship | SA | : Certified Study Abroad |
| RS | : Certified Research | IS | : Certified Specific Independent Study |
| EN | : Certified Entrepreneurship | FS | : Further Study |
| CD | : Certified Community Development | etc | : Study Program Special Purposes |

Students who failed in Enrichment Program I can retake with the same track or change into another track. As for Enrichment Program II, student who failed with Internship, Research, Community Development, and Study Abroad track on Enrichment Program II, can retake with the same track or change into another track. However students who take **Entrepreneurship** track on Enrichment Program II, should **retake with another track**

Certified Internship Track

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program I | | | |
| COMP6777031 | Industrial Experience in Information Technology | 8 | 20 |
| COMP6778031 | Information Technology Practice in Industrial Experience | 8 | |
| COMP6779031 | EES in Information Technology Industry | 4 | |
| Enrichment Program II | | | |
| COMP6780031 | Professional Experience in Information Technology | 8 | 20 |
| COMP6781031 | Information Technology Practice in Professional Experience | 8 | |
| COMP6782031 | Professional Development in Information Technology Industry | 4 | |

Certified Research Track

| Code | Course Name | SCU | Total |
|------------------------------|--|-----|-------|
| Enrichment Program I | | | |
| RSCH6389031 | Research Experience I | 8 | 20 |
| RSCH6599031 | Scientific Writing I in Computer Science | 8 | |
| RSCH6391031 | Global EES I (Team Work, Communication, Problem Solving & Decision Making) in Computer Science | 4 | |
| Enrichment Program II | | | |
| RSCH6392031 | Research Experience II in Computer Science | 8 | 20 |
| RSCH6600031 | Scientific Writing II in Computer Science | 8 | |
| RSCH6394031 | Global EES II (Self-Management, Planning & Organizing, Initiative & Enterprise) | 4 | |

Certified Entrepreneurship Track

| Code | Course Name | SCU | Total |
|-----------------------------|--|-----|-------|
| Enrichment Program I | | | |
| ENPR6001031 | New Venture Initiation in Computer Science | 8 | 20 |
| ENPR6002031 | Computer Science Product Development Process | 8 | |

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| ENTR6455031 | EES in New Computer Science Business | 4 | 20 |
| Enrichment Program II | | | |
| ENPR6003031 | Computer Science Product Launching | 8 | |
| ENPR6004031 | Computer Science Business Development | 8 | |
| ENTR6451031 | EES in Computer Science Business Experience | 4 | |

Certified Community Development Track

| Code | Course Name | SCU | Total |
|------------------------------|--|-----|-------|
| Enrichment Program I | | | 20 |
| CMDV6232031 | Community Outreach Project Implementation | 8 | |
| CMDV6374031 | Community Outreach IT Project Design | 8 | |
| CMDV6234031 | Employability and Entrepreneurial Skills in Computer Science Community | 4 | |
| Enrichment Program II | | | 20 |
| CMDV6235031 | Community Development Project Implementation | 8 | |
| CMDV6375031 | Community Development IT Project Design | 8 | |
| CMDV6237031 | Employability and Entrepreneurial Skills in Computer Science Community Development | 4 | |

Certified Study Abroad Track

| Code | Course Name | SCU | Total |
|-----------------------------|-------------------------------------|-----|-------|
| Enrichment Program I | | | 20 |
| GLOB6208031 | Elective Course for Study Abroad 1 | 4 | |
| GLOB6209031 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6210031 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6211031 | Elective Course for Study Abroad 4 | 4 | |
| GLOB6268031 | Elective Course for Study Abroad 25 | 4 | |
| GLOB6208031 | Elective Course for Study Abroad 1 | 4 | |
| GLOB6209031 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6210031 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6212031 | Elective Course for Study Abroad 5 | 2 | |
| GLOB6213031 | Elective Course for Study Abroad 6 | 2 | |
| GLOB6214031 | Elective Course for Study Abroad 7 | 2 | |
| GLOB6215031 | Elective Course for Study Abroad 8 | 2 | |
| GLOB6216031 | Elective Course for Study Abroad 9 | 2 | |
| GLOB6217031 | Elective Course for Study Abroad 10 | 2 | |

| Code | Course Name | SCU | Total |
|------------------------------|-------------------------------------|-----|-------|
| GLOB6218031 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6219031 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6269031 | Elective Course for Study Abroad 26 | 2 | |
| GLOB6289031 | Elective Course for Study Abroad 29 | 2 | |
| Enrichment Program II | | | |
| GLOB6220031 | Elective Course for Study Abroad 13 | 4 | 20 |
| GLOB6221031 | Elective Course for Study Abroad 14 | 4 | |
| GLOB6222031 | Elective Course for Study Abroad 15 | 4 | |
| GLOB6223031 | Elective Course for Study Abroad 16 | 4 | |
| GLOB6270031 | Elective Course for Study Abroad 27 | 4 | |
| GLOB6224031 | Elective Course for Study Abroad 17 | 2 | |
| GLOB6225031 | Elective Course for Study Abroad 18 | 2 | |
| GLOB6226031 | Elective Course for Study Abroad 19 | 2 | |
| GLOB6227031 | Elective Course for Study Abroad 20 | 2 | |
| GLOB6228031 | Elective Course for Study Abroad 21 | 2 | |
| GLOB6229031 | Elective Course for Study Abroad 22 | 2 | |
| GLOB6230031 | Elective Course for Study Abroad 23 | 2 | |
| GLOB6231031 | Elective Course for Study Abroad 24 | 2 | |
| GLOB6271031 | Elective Course for Study Abroad 28 | 2 | |
| GLOB6218031 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6219031 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6269031 | Elective Course for Study Abroad 26 | 2 | |
| GLOB6289031 | Elective Course for Study Abroad 29 | 2 | |

*) Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits

Certified Specific Independent Study Track

| Code | Course Name | SCU | Total |
|--|--|-----|-------|
| Elective courses list for Specific Independent Study* | | | |
| Enrichment Program I/II | | | |
| MICR6073031 | Course Certification I | 3 | 20 |
| MICR6074031 | Technical Skill Enrichment I | 4 | |
| MICR6075031 | Industrial Project I | 9 | |
| MICR6076031 | Soft Skill Enrichment I | 4 | |
| MICR6077031 | Elec Course for Specific Independent Study 1 | 8 | |
| MICR6078031 | Elec Course for Specific Independent Study 2 | 8 | |
| MICR6079031 | Elec Course for Specific Independent Study 3 | 6 | |
| MICR6080031 | Elec Course for Specific Independent Study 4 | 6 | |
| MICR6081031 | Elec Course for Specific Independent Study 5 | 6 | |
| MICR6082031 | Elec Course for Specific Independent Study 6 | 5 | |
| MICR6083031 | Elec Course for Specific Independent Study 7 | 5 | |

| Code | Course Name | SCU | Total |
|-------------|---|-----|-------|
| MICR6084031 | Elec Course for Specific Independent Study 8 | 5 | |
| MICR6085031 | Elec Course for Specific Independent Study 9 | 5 | |
| MICR6086031 | Elec Course for Specific Independent Study 10 | 4 | |
| MICR6087031 | Elec Course for Specific Independent Study 11 | 4 | |
| MICR6088031 | Elec Course for Specific Independent Study 12 | 4 | |
| MICR6089031 | Elec Course for Specific Independent Study 13 | 4 | |
| MICR6090031 | Elec Course for Specific Independent Study 14 | 4 | |
| MICR6091031 | Elec Course for Specific Independent Study 15 | 3 | |
| MICR6092031 | Elec Course for Specific Independent Study 16 | 3 | |
| MICR6093031 | Elec Course for Specific Independent Study 17 | 3 | |
| MICR6094031 | Elec Course for Specific Independent Study 18 | 3 | |
| MICR6095031 | Elec Course for Specific Independent Study 19 | 3 | |
| MICR6096031 | Elec Course for Specific Independent Study 20 | 3 | |
| MICR6097031 | Elec Course for Specific Independent Study 21 | 2 | |
| MICR6098031 | Elec Course for Specific Independent Study 22 | 2 | |
| MICR6099031 | Elec Course for Specific Independent Study 23 | 2 | |
| MICR6100031 | Elec Course for Specific Independent Study 24 | 2 | |
| MICR6101031 | Elec Course for Specific Independent Study 25 | 2 | |
| MICR6102031 | Elec Course for Specific Independent Study 26 | 2 | |
| MICR6103031 | Elec Course for Specific Independent Study 27 | 2 | |
| MICR6104031 | Elec Course for Specific Independent Study 28 | 2 | |
| MICR6105031 | Elec Course for Specific Independent Study 29 | 1 | |
| MICR6106031 | Elec Course for Specific Independent Study 30 | 1 | |
| MICR6107031 | Elec Course for Specific Independent Study 31 | 1 | |
| MICR6108031 | Elec Course for Specific Independent Study 32 | 1 | |

*) For students who take BINUS certified specific independent study courses, they should take the first 4 courses on the list above (20 credits). Meanwhile, electives courses 1 to 32 are transferred courses for students who take certified specific independent study courses outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits

Certified Further Study Track

Enrichment Program II

Fast track M.MSI

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program II | | | 20 |
| ISYS6654031 | Service Oriented Analysis and Design | 4 | |
| ISYS6655031 | Change Management for Enterprise | 4 | |
| ISYS6656031 | Digital Transformation Management | 4 | |
| ISYS6657031 | Data Analytics for Research | 4 | |
| ISYS6660031 | Visualization and Descriptive Analytics | 4 | |

Fast track M.TI

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program II | | | 20 |
| COMP6815031 | IT Disaster Recovery | 4 | |
| COMP6816031 | Wireless and Cloud Computing Technologies | 4 | |
| COMP6817031 | Internet Tools and Services | 4 | |
| COMP6818031 | Cyber Risk Management | 4 | |
| COMP6819031 | Knowledge Engineering | 4 | |

Student should pass all of these quality controlled courses as listed below:

| No | Course Code | Course Name | Minimal Grade |
|----|-------------|------------------------------------|---------------|
| 1. | CHAR6034031 | Character Building: Pancasila | B |
| 2. | ENTR6524032 | Entrepreneurship: MarketValidation | C |
| 3. | COMP6421031 | Algorithm and Programming | C |
| 4. | COMP6458031 | Data Structures | C |
| 5. | COMP6839031 | Program Design Methods | C |
| 6. | COMP6466031 | Software Engineering | C |
| 7. | COMP6847031 | Database Technology | C |
| 8. | COMP6716031 | Operating System | C |