

| <b>BINUS UNIVERSITY</b>          |                       |                              |
|----------------------------------|-----------------------|------------------------------|
| <h1>Course<br/>Distribution</h1> | <b>Degree</b>         | : Bachelor (S1)              |
|                                  | <b>Faculty/School</b> | : School of Computer Science |
|                                  | <b>Study Program</b>  | : Computer Science           |
|                                  | <b>Program</b>        | : -                          |
|                                  | <b>Binusian</b>       | : 2025                       |
|                                  | <b>Curriculum</b>     | : 2021                       |

**SEMESTER 1**

| Group                 | Course                                    | SCU       |
|-----------------------|---|-----------|
| MPK                   | CHAR6034031 Character Building: Pancasila | 2         |
| MKK                   | MATH6128031 Discrete Mathematics          | 4         |
|                       | MATH6129031 Linear Algebra                | 2         |
|                       | STAT6190031 Basic Statistics              | 2         |
|                       | COMP6421031 Algorithm and Programming **  | 4/2       |
| MKB                   | COMP6839031 Program Design Methods *      | 2         |
|                       | LANG6097031 Indonesian                    | 2         |
| <b>Total SCU</b>      |   | <b>20</b> |
| <b>Cumulative SCU</b> |   | <b>20</b> |

\*) This course is delivered in English

\*\*) Global Learning System course

**SEMESTER 2**

| Group                 | Course  | SCU       |
|-----------------------|---|-----------|
| MPK                   | CHAR6035031 Character Building: Kewarganegaraan | 2         |
| MKK                   | COMP6458031 Data Structures *                   | 4/2       |
|                       | MATH6135031 Calculus                            | 4         |
|                       | MATH6192031 Scientific Computing **             | 2/1       |
| MKB                   | COMP6846031 Human and Computer Interaction **   | 2/1       |
|                       | ENTR6522032 Entrepreneurship: Ideation          | 2         |
| <b>Total SCU</b>      |   | <b>20</b> |
| <b>Cumulative SCU</b> |   | <b>40</b> |

\*) This course is delivered in English

\*\*) Global Learning System course

**SEMESTER 3**

| Group                 | Course   | SCU       |  |
|-----------------------|--|-----------|--|
| MPK                   | CHAR6036031 Character Building: Agama                  | 2         |  |
| MKK                   | COMP6472031 Algorithm Design and Analysis *            | 4         |  |
|                       | CPEN6249031 Computer Networks **                       | 2/1       |  |
|                       | SCIE6065031 Computational Physics                      | 2/1       |  |
|                       | COMP6847031 Database Technology                        | 2/1       |  |
| MKB                   | COMP6468031 Artificial Intelligence                    | 4         |  |
|                       | COMP6848031 Object Oriented Programming *              | 2         |  |
|                       | <b>ENGLISH COURSES</b>                                 |           |  |
|                       | ENGL6216031 English Savvy                              | 2         |  |
|                       | ENGL6217031 English for Written Business Communication | 2         |  |
| <b>Total SCU</b>      |  | <b>23</b> |  |
| <b>Cumulative SCU</b> |  | <b>63</b> |  |

student with score English Proficiency Test less than 500 will take English Savvy, and student with score test greater than or equal to 500 will take English for Written Business Communication reality

\*) This course is delivered in English

\*\*) Global Learning System course

## SEMESTER 4

| Group | Course  | SCU |
|-------|---|-----|
| MKK   | COMP6715031 Research Methodology in Computer Science* | 2   |
|       | SCIE6066031 Computational Biology                     | 2/1 |
| MKB   | COMP6466031 Software Engineering**                    | 4   |
|       | <b>STREAMING: INTERNET OF THINGS***</b>               |     |
|       | COMP6849031 Embedded System                           | 2/2 |
|       | COMP6850031 Multimedia & Mixed Reality                | 2/1 |
|       | MOBI6072031 Mobile Programming                        | 2/1 |
|       | <b>STREAMING: DIGITAL CREATIVE TECHNOLOGY****</b>     |     |
|       | COMP6679004 Web Programming**                         | 4   |
|       | COMP6677004 Multimedia Systems                        | 2/2 |
|       | COMP6856004 Popular Programming Technology*           | 2   |
|       | <b>STREAMING: INTELLIGENT SYSTEM*****</b>             |     |
|       | COMP6576001 Natural Language Processing*&**           | 2   |
|       | COMP6577001 Machine Learning                          | 4   |
|       | COMP6822001 Speech Recognition                        | 2/2 |
|       | <b>STREAMING: DATABASE TECHNOLOGY*****</b>            |     |
|       | COMP6481001 Database Design                           | 2/1 |
|       | COMP6579001 Big Data Processing*&**                   | 2/2 |
|       | COMP6710001 Distributed Cloud Computing               | 2/1 |
|       | <b>STREAMING: INTERACTIVE MULTIMEDIA*****</b>         |     |
|       | COMP8129001 User Experience*&**                       | 2/2 |
|       | COMP6823001 Multimedia System**                       | 2   |
|       | COMP7094001 Multimedia Programming Foundation*        | 2/2 |
|       | <b>STREAMING: NETWORK TECHNOLOGY*****</b>             |     |
|       | COMP6824001 Computer Security*                        | 2/2 |
|       | COMP6584001 Network and System Programming*&**        | 2/2 |
|       | COMP6825001 Introduction to Cloud Infrastructure      | 2   |
|       | <b>STREAMING: GAME TECHNOLOGY*****</b>                |     |
|       | COMP7094001 Multimedia Programming Foundation*        | 2/2 |
|       | GAME6069001 Game Programming*&**                      | 4   |
|       | GAME6082001 Game Animation*&**                        | 2   |
|       | <b>STREAMING: MOBILE TECHNOLOGY*****</b>              |     |
|       | MOBI6006001 Mobile Community Solution*&**             | 2/2 |
|       | MOBI6069001 Wearable Technology*&**                   | 3   |
|       | COMP7094001 Multimedia Programming Foundation*        | 2/2 |
|       | <b>STREAMING: DATA SCIENCE*****</b>                   |     |
|       | DTSC6005001 Data Mining and Visualization*&**         | 2/1 |
|       | DTSC6007001 Deep Learning                             | 2   |
|       | DTSC6003001 Big Data Infrastructure and Technology*   | 2   |

| Group   | Course  | SCU       |
|---|---|-----------|
|   | DTSC6009001 Survey and Sampling Methods             | 4         |
| <b>STREAMING: CYBER SECURITY*****</b>   |   |           |
|   | COMP6842001 Server and Network Administration*&**   | 2         |
|   | COMP6549001 Software Security*&**                   | 2         |
|   | DTSC6003001 Big Data Infrastructure and Technology* | 2         |
|   | COMP6844001 Mobile Penetration Testing**            | 2/2       |
| <b>STREAMING: SOFTWARE ENGINEERING*****</b>   |   |           |
|   | COMP6106001 Code Reengineering                      | 4         |
|   | COMP6114001 Pattern Software Design                 | 2/2       |
|   | COMP6107001 Agile Software Development              | 2         |
| <b>MINOR PROGRAM***,****&amp;*****</b>  |   |           |
|   | <b>FREE ELECTIVES*****</b>                          | 12        |
| <b>Total SCU of Streaming : Digital Creative Technology, Intelligent System, Database Technology, Network Technology, Game Technology, Cyber Security, Software Engineering</b>                                     |   | <b>19</b> |
| <b>Total SCU of Streaming : Mobile Technology, Data Science</b>   |   | <b>20</b> |
| <b>Total SCU of Minor Program, Free Electives</b>   |   | <b>21</b> |
| <b>Cumulative SCU of Streaming : Digital Creative Technology, Intelligent System, Database Technology, Network Technology, Game Technology, Cyber Security, Software Engineering, Minor Program, Free Electives</b> |   | <b>82</b> |
| <b>Cumulative SCU of Streaming : Mobile Technology, Data Science</b>  |   | <b>83</b> |
| <b>Total SCU of Minor Program, Free Electives</b>   |   | <b>84</b> |

- Students are required to choose Streaming or Minor Program or Free Electives
  - For Free Electives, students are required to choose from the list of Free Electives in Appendix.
- \*) This course is delivered in English  
 \*\*) Global Learning System course  
 \*\*\*) Will be conducted in BINUS Bandung  
 \*\*\*\*) Will be conducted in BINUS Malang  
 \*\*\*\*\*) Will be conducted in BINUS Jakarta

## SEMESTER 5

| Group   | Course  | SCU |
|---|---|-----|
| MKK   | COMP6470031 Compilation Techniques              | 4   |
|   | COMP6716031 Operating System                    | 2   |
|   | ENTR6524032 Entrepreneurship: Market Validation | 2   |
| <b>STREAMING: INTERNET OF THINGS***</b>           |   |     |
|   | COMP6757031 Computer vision in IoT              | 2/2 |
|   | COMP6882031 IoT Development and Architecture    | 2/2 |
|   | COMP6655031 Cyber Security in IoT               | 2   |
| <b>STREAMING: DIGITAL CREATIVE TECHNOLOGY****</b> |   |     |
|   | COMP6678004 Big Data Analytics for Business     | 4   |
|   | MOBI6063004 Mobile Application Programming**    | 4   |
|   | COMP6680004 Data Visualization*                 | 2   |
| <b>STREAMING: INTELLIGENT SYSTEM*****</b>         |   |     |
|   | COMP7116001 Computer Vision*                    | 2/2 |
|   | COMP6826001 Deep Learning                       | 2/2 |
|   | Elective Course                                 | 2   |

| Group | Course  | SCU |
|-------|---|-----|
| MKB   | <b>STREAMING: DATABASE TECHNOLOGY*****</b>  |     |
|       | COMP6590001 Geographical Information System*  | 2/2 |
|       | COMP6140001 Data Mining   | 2/2 |
|       | Elective Course   | 2   |
|       | <b>STREAMING: INTERACTIVE MULTIMEDIA*****</b>   |     |
|       | COMP6583001 Computer Graphics   | 2/2 |
|       | COMP6589001 Game Design Programming*  | 4   |
|       | Elective Course   | 2   |
|       | <b>STREAMING: NETWORK TECHNOLOGY*****</b>   |     |
|       | COMP6827001 Linux System Administration and Security  | 2/2 |
|       | COMP7142001 Popular Network Technology  | 2/2 |
|       | Elective Course   | 2   |
|       | <b>STREAMING: GAME TECHNOLOGY*****</b>  |     |
|       | GAME6092001 Fundamental in Game Balancing   | 2   |
|       | GAME6081001 2D Game Art   | 2   |
|       | GAME6084001 Game Development Capstone Project *&**  | 4   |
|       | GAME6071001 3D Modeling for Games*&**   | 2   |
|       | <b>STREAMING: MOBILE TECHNOLOGY*****</b>  |     |
|       | MOBI6070001 Embedded System and Internet of Things *&**   | 3   |
|       | MOBI6009001 Mobile Multimedia Solution **   | 2/2 |
|       | MOBI6068001 Web Design *&**   | 2   |
|       | <b>STREAMING: DATA SCIENCE*****</b>   |     |
|       | DTSC6006001 Machine Learning *&**   | 2/1 |
|       | DTSC6002001 Data Management and Organization *  | 2   |
|       | DTSC6008001 Text Mining   | 2   |
|       | DTSC6004001 Data Security **  | 2   |
|       | <b>STREAMING: CYBER SECURITY*****</b>   |     |
|       | COMP6646001 Computer Forensic*&**   | 2   |
|       | COMP6544001 Network Penetration Testing **  | 2/2 |
|       | COMP6695001 Secure Programming *&**   | 2   |
|       | LAWS6110001 Cyber Law   | 2   |
|       | <b>STREAMING: SOFTWARE ENGINEERING*****</b>   |     |
|       | COMP6122001 Framework Layer Architecture  | 2/2 |
|       | COMP6115001 Object Oriented Analysis & Design   | 2/2 |
|       | Elective Course   | 2   |
|       | <b>Elective Courses for Database Technology, Interactive Multimedia, Network Technology, Software Engineering</b> |     |
|       | MOBI6059001 Mobile Programming  | 2   |
|       | COMP6586001 Embedded Systems  | 2   |
|       | COMP6226001 Competitive Programming*  | 2   |
|       | COMP6681001 Web Programming   | 2   |
|       | <b>MINOR PROGRAM ** , *****</b>   | 8   |

| Group   | Course                     | SCU        |
|---|----------------------------|------------|
|   | <b>FREE ELECTIVES ****</b> | <b>8</b>   |
| <b>Total SCU of Streaming : Digital Creative Technology, Intelligent System, Database Technology, Network Technology, Game Technology, Cyber Security, Software Engineering</b> |                            | <b>18</b>  |
| <b>Total SCU of Streaming : Mobile Technology, Data Science</b>   |                            | <b>17</b>  |
| <b>Total SCU of Minor Program, Free Electives</b>   |                            | <b>16</b>  |
| <b>Cumulative SCU</b>   |                            | <b>100</b> |

\*) This course is delivered in English

\*\*) Global Learning System course

\*\*\*) Will be conducted in BINUS Bandung

\*\*\*\*) Will be conducted in BINUS Malang

\*\*\*\*\*) Will be conducted in BINUS Jakarta

## SEMESTER 6

| Group                 | Course               | SCU        |
|-----------------------|----------------------|------------|
| MKB                   | Enrichment Program I | 20         |
| <b>Total SCU</b>      |                      | <b>20</b>  |
| <b>Cumulative SCU</b> |                      | <b>120</b> |

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

## SEMESTER 7

| Group                 | Course                | SCU        |
|-----------------------|-----------------------|------------|
| MKB                   | Enrichment Program II | 20         |
| <b>Total SCU</b>      |                       | <b>20</b>  |
| <b>Cumulative SCU</b> |                       | <b>140</b> |

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

## SEMESTER 8

| Group                 | Course                 | SCU        |
|-----------------------|------------------------|------------|
| MKB                   | COMP6760031 Pre-Thesis | 2          |
| MKB                   | COMP6761031 Thesis     | 4          |
| MKB                   | COMP6501031 Thesis     | 6          |
| <b>Total SCU</b>      |                        | <b>6</b>   |
| <b>Cumulative SCU</b> |                        | <b>146</b> |

Pre-Thesis (2 SCU) and Thesis (4SCU) can be taken in the 6<sup>th</sup> and/or 7<sup>th</sup> semester by students who meet requirements from the study program/program

### Notes : (Information for group table)

MKK = Mata kuliah Keilmuan & Ketrampilan (Science and Skill Course)

MKB = Mata kuliah Keahlian Berkarya (Creative Expertise Course)

MPK = Mata kuliah Pengembangan Kepribadian (Personality Development Course)

MPB = Mata kuliah Perilaku Berkarya (Creative Behavior Course)

MBB = Mata kuliah Berkehidupan Bermasyarakat (Social Living Course)