# Code : 25610041100042 Bachelor of Science Program in Digital Innovation (International Program) (2566)

## Name of the degree

**Full :** Bachelor of Science (Digital Innovation)
**Abbreviation :** B.S. (Digital Innovation)

## Curriculum structure

| | | | | |
|---|---|---|---|---|
| **(1) General Education** | | | | **30** |
| **1. Required Courses** | | | | **21** |
| **Learner Person** | | | | **15** |
| 001101 | ENGL | 101 | Fundamental English 1 | 3(3-0-6) |
| 001102 | ENGL | 102 | Fundamental English 2 | 3(3-0-6) |
| 001201 | ENGL | 201 | Critical Reading and Effective Writing | 3(3-0-6) |
| 001225 | ENGL | 225 | English in Science and Technology Context | 3(3-0-6) |

Choose one course from the followings:

| | | | | |
|---|---|---|---|---|
| 204100 | CS | 100 | Information Technology and Modern Life | 3(3-0-6) |
| 261111 | CPE | 111 | Internet and Online Community | 3(3-0-6) |
| 953111 | SE | 111 | Software for Everyday Life | 3(3-0-6) |
| **Innovative Co-creator** | | | | **3** |

Select 1 cours from the following:

| | | | | |
|---|---|---|---|---|
| 159100 | SA | 100 | Modern World in Everyday Life | 3(3-0-6) |
| 201110 | SC | 110 | Integrated Mathematical Sciences | 3(3-0-6) |
| 201117 | SC | 117 | Mathematics and Science in Civilization | 3(3-0-6) |
| 208102 | STAT | 102 | Statistical Reasoning and Thinking | 3(3-0-6) |
| 751100 | ECON | 100 | Economics for Everyday Life | 3(3-0-6) |
| 176100 | LAGE | 100 | Law and Modern World | 3(3-0-6) |
| 703103 | MGMT | 103 | Introduction to Entrepreneurship and Business | 3(3-0-6) |
| 013110 | PSY | 110 | Psychology and Daily Life | 3(3-0-6) |
| **Active Citizen** | | | | **3** |
| 140104 | PG | 104 | Citizenship | 3(3-0-6) |
| **2. GE Electives** | | | | **9** |

A student also chooses 9 credits from the followings:

| | | | | |
|---|---|---|---|---|
| 057122 | EDPE | 122 | Swimming for Life and Exercise | 1(1-0-2) |
| 057127 | EDPE | 127 | Badminton for Life and Exercise | 1(1-0-2) |
| 057138 | EDPE | 138 | Thai Wisdom Sports for Self-Defense | 3(3-0-6) |
| 259109 | ENGR | 109 | Telecommunication in Thailand | 3(3-0-6) |
| 359204 | HORT | 204 | Horticulture for Health | 2(2-0-4) |
| 359206 | HORT | 206 | Landscape, Environment, Behaviors, and Minds | 3(3-0-6) |
| 461100 | PHPS | 100 | Herbs for Health and Beauty | 3(3-0-6) |
| 702101 | FINA | 101 | Finance for Daily Life | 3(3-0-6) |

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| | 888102 | DIN | 102 | Big Data for Business | 3(3-0-6) |
| | 159151 | SA | 151 | Lanna Society and Culture | 3(3-0-6) |
| | 888106 | DIN | 106 | Communication and Networking in Online Society | 3(3-0-6) |
| | 888194 | DIN | 194 | Service Learning in Society 5.0 | 3(3-0-6) |
| **2. Field of Specialization : a minimum of** | | | | | **96** |
| **2.1 Core Courses** | | | | | **24** |
| | 204101 | CS | 101 | Introduction to Computer Science | 3(2-2-5) |
| | 204217 | CS | 217 | Computer Programming Languages | 3(2-2-5) |
| | 206113 | MATH | 113 | Calculus for Software Technology | 3(3-0-6) |
| or | 206171 | MATH | 171 | General Mathematics 1 | 3(3-0-6) |
| | 206255 | MATH | 255 | Mathematics for Software Technology | 3(3-0-6) |
| or | 206172 | MATH | 172 | General Mathematics 2 | 3(3-0-6) |
| or | 888152 | DIN | 152 | Programming for Data Visualization in Business | 3(2-3-4) |
| | 208150 | STAT | 150 | Probability and Statistics | 3(3-0-6) |
| | 888111 | DIN | 111 | Innovative Entrepreneurship Theory and Practice | 3(3-0-6) |
| | 888121 | DIN | 121 | Digital Economy | 3(3-0-6) |
| | 888231 | DIN | 231 | Ecosystem of E-Commerce in Innovative Economy | 3(3-0-6) |
| **2.2 Major : a minimum of** | | | | | **72** |
| **2.2.1 Requirements** | | | | | **33** |
| | 204251 | CS | 251 | Data Structures | 3(3-0-6) |
| | 206281 | MATH | 281 | Discrete Mathematics | 3(3-0-6) |
| or | 208251 | STAT | 251 | Regression Analysis and Non-parametric Statistics | 3(2-2-5) |
| or | 888212 | DIN | 212 | Fundamental Digital Tools for Entrepreneurs | 3(2-3-4) |
| | 208250 | STAT | 250 | Statistical Methods for Data Science | 3(2-2-5) |
| | 888151 | DIN | 151 | Digital Innovation and Trends | 3(3-0-6) |
| | 888211 | DIN | 211 | Fundraising in Digital Economy | 3(3-0-6) |
| | 888232 | DIN | 232 | Intellectual Property Management and Negotiation in Digital Economy | 3(3-0-6) |
| | 888251 | DIN | 251 | Digital Platforms | 3(3-0-6) |
| | 888311 | DIN | 311 | Digital Business Ecosystem | 3(3-0-6) |
| | 888399 | DIN | 399 | Technology Startup Project Survey | 3(0-9-0) |
| | 888498 | DIN | 498 | Technology Startup Pre-Project | 3(0-9-0) |
| | 888499 | DIN | 499 | Technology Startup Project | 3(0-9-0) |
| **2.2.2 Major Electives : a minimum of** | | | | | **39** |
| | 204321 | CS | 321 | Database Systems | 3(2-2-5) |
| | 204423 | CS | 423 | Data Mining | 3(3-0-6) |
| | 204453 | CS | 453 | Pattern Recognition | 3(2-2-5) |
| | 208350 | STAT | 350 | Applied Multivariate Statistics for Data Science | 3(3-0-6) |
| | 208450 | STAT | 450 | Analytics for Observational Data | 3(3-0-6) |
| | 208451 | STAT | 451 | Analytics for Experimental and Simulated Data | 3(2-2-5) |
| | 888312 | DIN | 312 | Startup in Health Business | 3(2-3-4) |
| | 888341 | DIN | 341 | Startup in Internet and Mobile Technology | 3(1-4-4) |
| | 888342 | DIN | 342 | Introduction to Management Information System | 3(3-0-6) |
| | 888350 | DIN | 350 | Implementation of STEM in Business for Sustainable Development Goals | 3(3-0-6) |
| | 888361 | DIN | 361 | Startup in Energy and Logistics Management | 3(1-4-4) |
| | 888411 | DIN | 411 | Operation Research for Digital Innovation | 3(3-0-6) |
| | 888450 | DIN | 450 | Startup in Digital Technology | 3(1-4-4) |
| | 888451 | DIN | 451 | Startup in Smart Electronic Technology | 3(1-4-4) |

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|---|---|---|---|---|---|
| | 888452 | DIN | 452 | Startup in Agriculture and Biotechnology Industry | 3(1-4-4) |
| | 888453 | DIN | 453 | Startup in Food for Future Industry | 3(1-4-4) |
| | 888454 | DIN | 454 | Startup in Biofuel and Biochemical Technology | 3(1-4-4) |
| | 888455 | DIN | 455 | Blockchain Security Design for Financial Technology | 3(3-0-6) |
| | 888461 | DIN | 461 | Startup in Manufacturing | 3(1-4-4) |

**2.3 Minor (if any) : a minimum of** 15

Students who would like to take minor courses accoeding to CMU annoucement on Minor Courses for Chiang Mai University students for at least 15 credits with approval from academic advisors. This will resuit in the increase of the total credits of the program for at least 15 credits.

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| **3. Free Electives : a minimum of** | 6 |
| **Total : a minimum of** | 132 |

## Study plan

### First Year

| | | | | **First Semester** | **Credits** |
|---|---|---|---|---|---|
| | 001101 | ENGL | 101 | Fundamental English 1 | 3(3-0-6) |
| | 204101 | CS | 101 | Introduction to Computer Science | 3(2-2-5) |
| | 206113 | MATH | 113 | Calculus for Software Technology | 3(3-0-6) |
| or | 206171 | MATH | 171 | General Mathematics 1 | 3(3-0-6) |
| | 208150 | STAT | 150 | Probability and Statistics | 3(3-0-6) |
| | 888111 | DIN | 111 | Innovative Entrepreneurship Theory and Practice | 3(3-0-6) |
| | | | | GE (Elective) | 3 |
| | | | | General Education Elective (Innovative Co-creator) | 3 |
| | | | | **Total** | **21** |

| | | | | **Second Semester** | **Credits** |
|---|---|---|---|---|---|
| | 001102 | ENGL | 102 | Fundamental English 2 | 3(3-0-6) |
| | 140104 | PG | 104 | Citizenship | 3(3-0-6) |
| | 204217 | CS | 217 | Computer Programming Languages | 3(2-2-5) |
| | 206255 | MATH | 255 | Mathematics for Software Technology | 3(3-0-6) |
| or | 206172 | MATH | 172 | General Mathematics 2 | 3(3-0-6) |
| or | 888152 | DIN | 152 | Programming for Data Visualization in Business | 3(2-3-4) |
| | 208250 | STAT | 250 | Statistical Methods for Data Science | 3(2-2-5) |
| | 888121 | DIN | 121 | Digital Economy | 3(3-0-6) |
| | 888151 | DIN | 151 | Digital Innovation and Trends | 3(3-0-6) |
| | | | | **Total** | **21** |

### Second Year

| | | | | **First Semester** | **Credits** |
|---|---|---|---|---|---|
| | 001201 | ENGL | 201 | Critical Reading and Effective Writing | 3(3-0-6) |
| | 204251 | CS | 251 | Data Structures | 3(3-0-6) |
| | 206281 | MATH | 281 | Discrete Mathematics | 3(3-0-6) |
| or | 208251 | STAT | 251 | Regression Analysis and Non-parametric Statistics | 3(2-2-5) |
| or | 888212 | DIN | 212 | Fundamental Digital Tools for Entrepreneurs | 3(2-3-4) |
| | 888231 | DIN | 231 | Ecosystem of E-Commerce in Innovative Economy | 3(3-0-6) |

| | | | | | |
|---|---|---|---|---|---|
| | 888251 | DIN | 251 | Digital Platforms | 3(3-0-6) |
| | 204100 | CS | 100 | Information Technology and Modern Life | 3(3-0-6) |
| or | 261111 | CPE | 111 | Internet and Online Community | 3(3-0-6) |
| or | 953111 | SE | 111 | Software for Everyday Life | 3(3-0-6) |
| | | | | General Education (Electives) | 3 |
| | | | | Total | 21 |

| | | | | Second Semester | Credits |
|---|---|---|---|---|---|
| | 001225 | ENGL | 225 | English in Science and Technology Context | 3(3-0-6) |
| | 888211 | DIN | 211 | Fundraising in Digital Economy | 3(3-0-6) |
| | 888232 | DIN | 232 | Intellectual Property Management and Negotiation in Digital Economy | 3(3-0-6) |
| | 888311 | DIN | 311 | Digital Business Ecosystem | 3(3-0-6) |
| | | | | Major Elective | 3 |
| | | | | General Education (Electives) | 3 |
| | | | | Total | 18 |

## Third Year

| | | | | First Semester | Credits |
|---|---|---|---|---|---|
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Free Elective | 3 |
| | | | | Total | 15 |

| | | | | Second Semester | Credits |
|---|---|---|---|---|---|
| | 888399 | DIN | 399 | Technology Startup Project Survey | 3(0-9-0) |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Free Elective | 3 |
| | | | | Total | 15 |

## Fourth Year

| | | | | First Semester | Credits |
|---|---|---|---|---|---|
| | 888498 | DIN | 498 | Technology Startup Pre-Project | 3(0-9-0) |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Major Elective | 3 |
| | | | | Total | 12 |

| | | | | Second Semester | Credits |
|---|---|---|---|---|---|
| | 888499 | DIN | 499 | Technology Startup Project | 3(0-9-0) |
| | | | | Major Elective | 3 |
| | | | | Total | 6 |