

Business Analytics

Introduction

The Business Analytics Program is designed for individuals passionate about data and with strong critical thinking skills. This degree, developed by the School of Information Systems, equips students with the ability to collect, manage, and analyze data to solve real-world business challenges. With a focus on applied learning and hands-on experience, students learn to use the latest technologies and tools to unlock the full potentials of data, creating value for companies and society. This program is perfect for those who want to enhance their business performance, make smart management decisions, and positively impact the corporate world.

Vision

A world class information system study program specialized in IT-business, recognized internationally, and champions innovation for fostering and empowering the society.

Mission

The missions of Business Analytics are:

1. Nurturing students and lecturers with creative and value-adding talents in Information System by creating a suitable environment;
2. Educating students in information systems, covering knowledge and skills in analyzing, designing and implementing information systems for improving business processes and to be able to create an innovative and valuable information system solution, through intensive learning process, research activities and collaboration with global industries;
3. Providing integrated knowledge to pursue further studies and create outstanding professionals, entrepreneurs, and leaders for a global community;
4. Providing professional services in Information Systems with an emphasis on the application of knowledge to society;
5. Fostering the quality of life of Indonesians and the international community through leveraging Information system solutions.

Program Objective

The objectives of the program are to:

1. Program graduates will possess effective communication, teamwork, and leadership skills with ethical considerations in solving problems for an organization and creating benefits for society.
2. Program graduates will apply accurate skills and knowledge in system development that will be needed as a professional in information systems.
3. Program graduates will maintain in-depth knowledge of information system methodologies and technologies to address the critical needs of an organization.

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 the program's discipline;

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 the program's discipline;
6. Able to support the delivery, use, and management of information systems within an information systems environment.

Prospective Career of the Graduates

Graduates will have the necessary skills to work as:

- | | |
|--------------------------------|-------------------------------|
| 1. Data business analyst | 9. Market research analyst |
| 2. Data analytics consultant | 10. Web analyst |
| 3. Decision science consultant | 11. Social media data analyst |
| 4. Technology consultant | 12. Supply chain analyst |
| 5. Management consultant | 13. Human resource analyst |
| 6. Customer data analyst | 14. Marketing analyst |
| 7. Quantitative modeler | 15. Risk analyst |
| 8. Data architect | |

Curriculum

The Business Analytics curriculum is designed based on recommendations from the Association for Computing Machinery (ACM) and the Association for Information Systems (AIS) for undergraduate degree programs in Business Analytics. It is also influenced by renowned foreign universities known for their qualified Business Analytics programs. Students will learn to apply their data analysis skills to solve business problems in marketing, finance, and economics. They will use industry-standard tools to gain insights through analytics.

This program provides students with a robust foundation in data analytics, encompassing both data analytics and programming principles. It offers a comprehensive understanding of how analytics are applied across various industrial domains. Students will develop essential teamwork skills to achieve common objectives and will gain a deep understanding of the professional, ethical, legal, security, and social responsibilities inherent to analytics professionals. Furthermore, they will be equipped to assess data analytics' local and global impact on individuals, organizations, and society.

Course Structure

| Sem | Code | Course Name | SCU | Total |
|-----|---------------------------------|---|-----|-------|
| 1 | CHAR6013003 | Character Building: Pancasila | 2 | 20 |
| | ISYS6896003 | Information Systems Management, Strategy and Acquisition ¹ | 4 | |
| | ISYS6901003 | Enterprise Business Process ² - (AOL) | 4 | |
| | ISYS6596003 | User Experience Research and Design ² - (AOL) | 4/2 | |
| | ISYS6898003 | Algorithm and Programming - (AOL) | 2/2 | |
| | Foreign Language Courses | | 0 | |
| 2 | CHAR6014003 | Character Building: Kewarganegaraan | 2 | 20 |
| | ISYS6892003 | Database Fundamental ^{1&2} - (AOL) | 4/2 | |

| Sem | Code | Course Name | SCU | Total |
|-----|---------------------------------|---|------------------------------|-------|
| | ISYS6897003 | Digital Innovation - (AOL) | 2 | |
| | ISYS6894003 | IT Infrastructure & Emerging Technology | 4 | |
| | ISYS6900003 | IT Governance & Security ² | 4 | |
| | COSC6011003 | Foundations of Artificial Intelligence | 2 | |
| | Foreign Language Courses | | 0 | |
| 3 | CHAR6015003 | Character Building: Agama | 2 | 20 |
| | LANG6027003 | Indonesian | 2 | |
| | ISYS6198003 | Data and Information Management ² - (AOL & AIE) | 4 | |
| | COSC6050003 | Programming for Business | 2/2 | |
| | ISYS6893003 | Information Systems Analysis and Design ² - (AOL) | 4/2 | |
| | ISYS6338003 | Testing and Systems Implementation ¹ - (AOL) | 2 | |
| | Foreign Language Courses | | 0 | |
| 4 | ENPR6311001 | Creativity and Innovation | 2 | 22 |
| | ISYS6895003 | Data Modelling | 2/2 | |
| | ISYS6256003 | Information Systems Project Management ^{1&2} - (AOL) | 4 | |
| | ISYS6902003 | Research Methods in Information Systems - (AIE) | 4 | |
| | ISYS6908003 | Business Analytics Fundamental ¹ | 4 | |
| | ISYS6928003 | Visual Analytics | 4 | |
| | Foreign Language Courses | | 0 | |
| 5 | ENPR6312001 | Venture Creation | 2 | 18 |
| | ISYS6899003 | Minor Project in Information Systems - (AOL & AIE) | 4 | |
| | ISYS6932003 | Enterprise Data Warehouse | 4/2 | |
| | ISYS6933003 | Enterprise Analytics ² | 4 | |
| | ISYS6934003 | Decision Analytics | 2 | |
| 6 | Enrichment Program I | | 20 | 20 |
| 7 | Enrichment Program II | | 20 | 20 |
| 8 | ISYS6625003 | Pre-Thesis | 2 | 6 |
| | ISYS6626003 | Thesis | 4 | |
| | ISYS6117003 | Thesis | 6 | |
| | | | Total Credits 146 SCU | |

1) This course is delivered in English

2) Global Learning System course

-) **AOL** - Assurance of Learning Process System

-) **AIE** - Artificial Intelligence Embedded Course

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 |
|--------------------------|-------------------------------|-----|
| ENGL6253003 | English for Frontrunners | 0 |
| ENGL6254003 | English for Independent Users | 0 |
| ENGL6255003 | English for Professionals | 0 |
| JAPN6190003 | Basic Japanese Language* | 0 |
| CHIN6163003 | Basic Chinese Language* | 0 |

*) This course is optional for students

1. Students with Beelingua Placement Test score less than 60 are required to take English for Frontrunners and English for Independent Users.
2. Students with Beelingua Placement Test score between 61-99 are required to take English for Independent Users and English for Professionals.
3. Students with Beelingua Placement Test score greater than 99 are required to take English for Professionals. Additionally, students may choose to take either 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.

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 | |
| 19 | | v | | | | | | | | | | | | v | |
| 20 | | | | v | | | | | | | | | | v | |
| 21 | | | | | v | | | | | | | | | v | |
| 22 | v | | | | | | | | | | | | | v | |
| 23 | | v | | | | | | | | | | | | v | |
| 24 | | | | v | | | | | | | | | | v | |
| 25 | | | | | v | | | | | | | | | v | |

Description:

| | | | |
|----|-----------------------------------|-----|--|
| 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 |

Note:

Student can choose one of the existing tracks

Certified Internship Track

| Code | Course Name | SCU | Total |
|------------------------------|--|-----|-------|
| Enrichment Program I | | | 20 |
| ISYS6215003 | Experience in Industry | 8 | |
| ISYS6844003 | Requirement and Solution for Information Systems | 8 | |
| COMM6703003 | Business & Professional Communication | 4 | 20 |
| Enrichment Program II | | | |
| ISYS6347003 | Professional Program in Industry | 8 | |
| ISYS6845003 | Design and Evaluation for Information Systems | 8 | |
| BUSS6249003 | Business Ethic and Social Responsibility | 4 | |

Certified Research Track

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program I | | | 20 |
| RSCH6275003 | Research Experience | 8 | |
| RSCH6510003 | Scientific Writing in Information Systems Research | 8 | |
| RSCH6460003 | EES in Information Systems Research | 4 | 20 |
| Enrichment Program II | | | |
| RSCH6412003 | Information Systems Research Experience | 8 | |
| RSCH6511003 | Scientific Writing in Information Systems | 8 | |
| RSCH6414003 | Global Employability and Entrepreneurial Skills in Information Systems Research | 4 | |

Certified Entrepreneurship Track

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program I | | | 20 |
| ENTR6949003 | New Venture Initiation in Information Systems | 8 | |
| ENTR6596003 | Product Development Process for Information Technology Business | 8 | |
| ENTR6950003 | EES in New Information Systems Business I | 4 | 20 |
| Enrichment Program II | | | |
| ENTR6951003 | Product Launching in Information Systems | 8 | |
| ENTR6597003 | Business Development for Information Technology Business | 8 | |
| ENTR6952003 | EES in New Information Systems Business II | 4 | |

Certified Community Development Track

| Code | Course Name | SCU | Total |
|------------------------------|---|-----|-------|
| Enrichment Program I | | | |
| CMDV6156003 | Community Outreach Project Implementation | 8 | 20 |
| CMDV6289003 | Community Outreach Project Design in Information Systems | 8 | |
| CMDV6259003 | Employability and Entrepreneurial Skills in Information Systems Community | 4 | |
| Enrichment Program II | | | |
| CMDV6260003 | Community Development Project Implementation | 8 | 20 |
| CMDV6290003 | Community Development Project Design in Information Systems | 8 | |
| CMDV6262003 | Employability and Entrepreneurial Skills in Information Systems Community Development | 4 | |

Certified Study Abroad Track

| Code | Course Name | SCU | Total |
|--|-------------------------------------|-----|-------|
| Elective courses list for study abroad* | | | |
| Enrichment Program I/II | | | |
| GLOB6005003 | Elective Course for Study Abroad 1 | 4 | 20 |
| GLOB6006003 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6007003 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6008003 | Elective Course for Study Abroad 4 | 4 | |
| GLOB6009003 | Elective Course for Study Abroad 5 | 2 | |
| GLOB6010003 | Elective Course for Study Abroad 6 | 2 | |
| GLOB6011003 | Elective Course for Study Abroad 7 | 2 | |
| GLOB6012003 | Elective Course for Study Abroad 8 | 2 | |
| GLOB6013003 | Elective Course for Study Abroad 9 | 2 | |
| GLOB6014003 | Elective Course for Study Abroad 10 | 2 | |
| GLOB6015003 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6016003 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6251003 | Elective Course for Study Abroad 29 | 4 | |

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

Certified Specific Independent Study

| Code | Course Name | SCU | Total |
|--|--|-----|-------|
| Elective courses list for certified specific independent study* | | | |
| Enrichment Program I/II | | | |
| CSIS6001003 | Course Certification | 3 | 20 |
| CSIS6002003 | Technical Skill Enrichment | 4 | |
| CSIS6003003 | Industrial Project | 9 | |
| CSIS6004003 | Soft Skill Enrichment | 4 | |
| CSIS6005003 | Elective Course for Specific Independent Study 1 | 8 | |
| CSIS6006003 | Elective Course for Specific Independent Study 2 | 8 | |

| Code | Course Name | SCU | Total |
|-------------|---|-----|-------|
| CSIS6007003 | Elective Course for Specific Independent Study 3 | 6 | |
| CSIS6008003 | Elective Course for Specific Independent Study 4 | 6 | |
| CSIS6009003 | Elective Course for Specific Independent Study 5 | 6 | |
| CSIS6010003 | Elective Course for Specific Independent Study 6 | 5 | |
| CSIS6011003 | Elective Course for Specific Independent Study 7 | 5 | |
| CSIS6012003 | Elective Course for Specific Independent Study 8 | 5 | |
| CSIS6013003 | Elective Course for Specific Independent Study 9 | 5 | |
| CSIS6014003 | Elective Course for Specific Independent Study 10 | 4 | |
| CSIS6015003 | Elective Course for Specific Independent Study 11 | 4 | |
| CSIS6016003 | Elective Course for Specific Independent Study 12 | 4 | |
| CSIS6017003 | Elective Course for Specific Independent Study 13 | 4 | |
| CSIS6018003 | Elective Course for Specific Independent Study 14 | 4 | |
| CSIS6019003 | Elective Course for Specific Independent Study 15 | 3 | |
| CSIS6020003 | Elective Course for Specific Independent Study 16 | 3 | |
| CSIS6021003 | Elective Course for Specific Independent Study 17 | 3 | |
| CSIS6022003 | Elective Course for Specific Independent Study 18 | 3 | |
| CSIS6023003 | Elective Course for Specific Independent Study 19 | 3 | |
| CSIS6024003 | Elective Course for Specific Independent Study 20 | 3 | |
| CSIS6025003 | Elective Course for Specific Independent Study 21 | 2 | |
| CSIS6026003 | Elective Course for Specific Independent Study 22 | 2 | |
| CSIS6027003 | Elective Course for Specific Independent Study 23 | 2 | |
| CSIS6028003 | Elective Course for Specific Independent Study 24 | 2 | |
| CSIS6029003 | Elective Course for Specific Independent Study 25 | 2 | |
| CSIS6030003 | Elective Course for Specific Independent Study 26 | 2 | |
| CSIS6031003 | Elective Course for Specific Independent Study 27 | 2 | |
| CSIS6032003 | Elective Course for Specific Independent Study 28 | 2 | |
| CSIS6033003 | Elective Course for Specific Independent Study 29 | 1 | |
| CSIS6034003 | Elective Course for Specific Independent Study 30 | 1 | |
| CSIS6035003 | Elective Course for Specific Independent Study 31 | 1 | |
| CSIS6036003 | Elective 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 outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

Further Study Track

| Code | Course Name | SCU | Total |
|--|--|-----|-------|
| Enrichment Program II (Master of Management Information Systems: Information Systems Strategic Management Stream) | | | 20 |
| ISYS6829003 | Digital Technology and Transformation | 4 | |
| ISYS6830003 | Data Analytics for Business | 6 | |
| ISYS6831003 | Applied Technology in Information Systems* | 4 | |
| ISYS6849003 | Strategic Planning for Information Systems | 6 | |

| Code | Course Name | SCU | Total |
|--|--|-----|-------|
| Enrichment Program II (Master of Management Information Systems: Digitalpreneurship Stream) | | | |
| ISYS6829003 | Digital Technology and Transformation | 4 | |
| ISYS6830003 | Data Analytics for Business | 6 | |
| ISYS6831003 | Applied Technology in Information Systems* | 4 | |
| ISYS6848003 | New Media Ventures and Innovation | 6 | |

*) Students are required to obtain certification no later than the end of the first semester of the master's (S2) program, as outlined in the university's official guidelines. This certification will be transferred as an undergraduate (S1) course and reported in the seventh semester of the undergraduate program.

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

| No | Course Code | Course Name | Minimal Grade |
|----|-------------|--|---------------|
| 1. | CHAR6013003 | Character Building: Pancasila | B |
| 2. | ISYS6901003 | Enterprise Business Process* | C |
| 3. | ISYS6892003 | Database Fundamental* | C |
| 4. | ISYS6893003 | Information Systems Analysis and Design* | C |
| 5. | ISYS6198003 | Data and Information Management | C |
| 6. | ISYS6256003 | Information Systems Project Management | C |
| 7. | ENPR6312001 | Venture Creation | C |
| 8. | ISYS6899003 | Minor Project in Information Systems | C |

*) Tutorial

