# Digital Psychology

## Introduction

In an era where humanity and technology are inextricably linked, a nuanced understanding of their interaction is paramount. This knowledge is critical not only for evaluating the impact of technology on human well-being but also for harnessing insights into human behavior to design and utilize technologies that foster greater individual and societal flourishing.

The Digital Psychology program at BINUS University is a unique double-degree collaboration that synergizes the strengths of two distinct disciplines to meet this critical need: Psychology and Computer Science. The Psychology program offers a robust foundation in the scientific knowledge of human behavior, extending traditional psychology principles to analyze the human-computer interface and leverage technology to improve human performance. Complemented by the Computer Science program's expertise in the processes, techniques, and tools for developing complex digital systems. By emphasizing specialties such as intelligent systems and software engineering, the program prepares students to create the technologies that are shaping our world.

By blending these two fields, the Digital Psychology program equips graduates with a dual skillset: the ability to understand the psychological intricacies of human interaction with technology, and the technical proficiency to design innovative, effective, and ethically sound digital solutions for well-being.

## Vision

A World Class study program by providing excellent educational experiences in applied Psychology and ICT, fostering and empowering the society in serving and building the nation.

## Mission

The mission of Digital Psychology Program 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 Psychology and computer science to solve real-world problems.
2. Preparing our graduates to develop exemplary soft skills & technical skills required as Psychology and ICT professionals, leaders and entrepreneurs in global market.
3. Promoting high impact research that contributes to the nation.
4. Fostering BINUSIAN as lifelong learners through self-enrichment.
5. Empowering BINUSIAN to continuously improve society's quality of life.

## Program Objective

The objectives of the program are:

1. Graduates will become a successful professional in psychology and IT 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 level.
4. Graduate will have ability to pursue higher degree of education.

## Student Outcomes

After completing the study, graduates are:

1. Able to use scientific reasoning based on an understanding of basic concepts and psychological theories, in order to describe and analyze psychological phenomena at the individual, group, organizational, and community levels.
2. Able to conduct critical scientific research, including developing psychological assessment instruments, to explain psychological phenomena using the latest information and communication technology (ICT)
3. Able to ethically conduct data-driven/data-driven psychological interventions for urban communities
4. Able to plan self and career development in preparation for the challenges of the global world
5. Able to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solution
6. Able to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of computer science
7. Able to communicate effectively in a variety of professional contexts
8. Able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
9. Able to function effectively as a member or leader of a team engaged in activities appropriate to computer science
10. Able to apply computer science theory and software development fundamentals to produce computing based solutions
11. Able to analyze significant trends, correlations, and patterns in psychological data by applying computational principles

## Prospective Career of the Graduates

After finishing their study, the graduates have an ideal foundation to enter many career opportunities, such as:

1. Behavioral data scientist
2. Cognitive/behavioral software or game developer
3. User Experience (UX)/Interaction (UI designer/consultant
4. Professional in the area of Human Resources, Education, or Community
5. Assistant psychologist
6. Counselor
7. Writer/Content-creator/Influencer
8. Entrepreneur

## Curriculum

The Digital Psychology program's curriculum is a unique blend of two distinct disciplines, structured to meet both national and international standards. It is built upon the foundational core curricula of both Psychology and Computer Science, aligning with the National Curriculum as well as the standards set by AP2TPI (Asosiasi Penyelenggara Pendidikan Tinggi Psikologi Indonesia) and ACM (Association for Computing Machinery), and integrating insights from various local and foreign universities and market trends.

This comprehensive academic foundation is complemented by a suite of applied courses developed collaboratively by the two departments. This practical focus is designed to equip graduates with the knowledge and skills necessary to play a direct and impactful role at both national and global levels, fostering improved human well- being in the digital era.

## Course Structure

| Sem | Code | Course Name | SCU | Total |
|---|---|---|---|---|
| 1 | COMP6360004 | Algorithm and Programming [2] (AOL) | 4/2 | 20 |
| | COMP6840004 | Program Design Methods [1] (AOL) | 2 | |
| | MATH6119004 | Linear Algebra | 2 | |
| | PSYC6221027 | Basic Statistics [4] (AOL) | 2 | |
| | PSYC6222027 | Scientific Logics [4] | 2 | |
| | PSYC6223027 | Fundamentals of Psychology [4] (AOL) | 2 | |
| | PSYC6224027 | Psychology of Learning [4] (AOL) | 2 | |
| | PSYC6225027 | Introduction to Digital Psychology [4] | 2 | |
| | **Foreign Language Courses** | | 0 | |
| 2 | CHAR6030004 | Character Building: Pancasila (AOL) | 2 | 20 |
| | PSYC6226027 | Statistics for Behavioral Science [2&4] (AOL) | 2 | |
| | COMP6362004 | Data Structures [1&2] (AOL) | 4/2 | |
| | COMP6854004 | Object Oriented Programming [1&2] | 2 | |
| | PSYC6227027 | Research Methodology: Quantitative Methods [2&4] (AOL) | 2 | |
| | PSYC6228027 | Observational Method [4] (AOL) | 2 | |
| | PSYC6229027 | Biopsychology [4] | 2 | |
| | LANG6027004 | Indonesian (AOL) | 2 | |
| | **Foreign Language Courses** | | 0 | |
| 3 | COMP6852004 | Database Technology [2] (AOL) | 2/1 | 24 |
| | COMP6853004 | Artificial Intelligence [2] (AOL) | 4 | |
| | CPEN6250004 | Computer Networks (AOL) | 2/1 | |
| | MATH6118004 | Discrete Mathematics | 4 | |
| | COMP6365004 | Algorithm Design and Analysis [1] (AOL) | 4 | |
| | PSYC6230027 | Psychology of Human Development [2&4] (AOL) | 4 | |
| | PSYC6231027 | Cognitive Psychology [4] (AOL) | 2 | |
| | **Foreign Language Courses** | | 0 | |
| 4 | SCIE6068004 | Computational Biology | 2/1 | 24 |
| | MATH6120004 | Calculus | 4 | |
| | MATH6193004 | Scientifics Computing (AOL) | 2/1 | |
| | CHAR6031004 | Character Building: Kewarganegaraan (AOL) | 2 | |
| | PSYC6122027 | Social Psychology [1,2&4] (AOL) | 4 | |
| | PSYC6232027 | Principle of Psychodynamics & Humanistic on Personality [4] | 2 | |
| | PSYC6137027 | Psychometrics [4] (AOL) | 2 | |
| | COMP6855004 | Software Engineering [2] (AOL) | 4 | |
| | **Foreign Language Courses** | | 0 | |
| 5 | COMP6390004 | Compilation Techniques | 4 | 24 |
| | PSYC6233027 | Research Methodology: Experimental Design [1,2&4] (AOL) | 2 | |
| | PSYC6234027 | Personality Psychology and Artificial Intelligence [4] (AOL) | 2 | |
| | PSYC6049027 | Psychological Test Construction [4] (AOL) | 4 | |
| | PSYC6235027 | Technology-Mediated Interview [4] (AOL) | 4 | |
| | PSYC6167027 | Industrial and Organizational Psychology [4] (AOL) | 4 | |
| | COMP6713004 | Operating Systems (AOL) | 2 | |
| | ENPR6315002 | Creativity and Innovation (AOL) | 2 | |
| | SCIE6063001 | Computational Physics (AOL) | 2/1 | 24 |

| Sem | Code | Course Name | SCU | Total |
|---|---|---|---|---|
| 6[3] | PSYC6030027 | Clinical Psychology [2] | 4 | |
| | PSYC6140027 | Counseling Psychology [2] | 2 | |
| | PSYC6236027 | Digital Well-Being | 4 | |
| | PSYC6237027 | Behavioral Data Analytics (AOL) | 4/2 | |
| | COMP6800001 | Human and Computer Interaction [2] (AOL) | 2/1 | |
| | CHAR6015027 | Character Building: Agama (AOL) | 2 | |
| 7[3] | ENPR6312005 | Venture Creation (AOL) | 2 | 22 |
| | PSYC6238027 | Technology-Based Psychological Intervention (AOL) | 4 | |
| | COSC6166027 | Behavioral Simulation and Generation [1] (AOL) | 2/2 | |
| | PSYC6239027 | Digital Workforce Psychology (AOL) | 2 | |
| | PSYC6240027 | Digital School Psychology (AOL) | 2 | |
| | PSYC6241027 | Affective Computing (AOL) | 4 | |
| | PSYC6242027 | Introduction to Psychodiagnostic | 4 | |
| 8 | COSC6170004 | Pre-Thesis | 2 | 22 |
| | Enrichment Program I | | 20 | |
| 9 | COSC6171004 | Thesis | 4 | 24 |
| | Enrichment Program II | | 20 | |
| | | | | **Total Credits 204 SCU** |

*1) This course is delivered in English*

*2) Global Learning System course*

*3) In 6th and 7th Semester, conducted for student mobility to BINUS @Greater Jakarta*

*4) Conducted as Blending Learning*

**Foreign Language Courses:**

*Students will take foreign language courses according to Beelingua Placement Test results. See foreign language courses appendix for the details. Students must pass with a minimum Grade of C.*

**Enrichment Program I (8th Semester) & Enrichment Program II (9th Semester):**

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

## Appendix Foreign Language Courses

| Foreign Language Courses | | SCU |
|---|---|---|
| ENGL6268004 | English for Frontrunners | 0 |
| ENGL6269004 | English for Independent Users | 0 |
| ENGL6267004 | English for Professionals | 0 |
| JAPN6208004 | Basic Japanese Language* | 0 |
| CHIN6185004 | 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 60 and 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

| Scheme | Semester 8 | | | | | | | Semester 9 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IN | RS | EN | CD | SA | IS | etc | IN | RS | EN | CD | SA | IS | 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 | |

**Note:**

| | | | |
|---|---|---|---|
| IN | : Company Internship | SA | : Study Abroad |
| RS | : Research Fellowship | IS | : Specific Independent Study |
| EN | : Entrepreneurship | etc | : Study Program Special Purposes |
| CD | : Community Impact Internship | | |

**Description:**

Student will take one of enrichment program tracks

### Company Internship Track

| Code | Course Name | SCU | Total |
|---|---|---|---|
| **Enrichment Program I** | | | 20 |
| COSC6173004 | Industrial Experience in Digital Psychology | 8 | |
| COSC6174004 | Project Planning and Designing | 8 | |
| COSC6175004 | Employability and Entrepreneurial Skill: Teamwork, Communication, Planning & Organizing | 4 | |
| **Enrichment Program II** | | | |
| COSC6184004 | Professional Experience in Digital Psychology | 8 | |
| COSC6185004 | Project Development and Implementation | 8 | |
| COSC6186004 | Employability and Entrepreneurial Skill: Self Management, Initiative & Enterprise, Problem Solving & Decision Making | 4 | |

### Research Fellowship Track

| Code | Course Name | SCU | Total |
|---|---|---|---|
| **Enrichment Program I** | | | 20 |
| RSRC6006004 | Research Experience | 8 | |
| RSRC6007004 | Writing Research Proposal | 8 | |
| RSRC6008004 | Global EES: Teamwork, Communication, Planning & Organizing | 4 | |
| **Enrichment Program II** | | | |
| RSRC6012004 | Research Assistantship | 8 | |
| RSRC6013004 | Scientific Report Writing | 8 | |
| RSRC6014004 | Global EES: Self-Management, Initiative & Enterprise, Problem Solving & Decision Making | 4 | |

### Entrepreneurship Track

| Code | Course Name | SCU | Total |
|---|---|---|---|
| **Enrichment Program I** | | | 20 |
| ENPR6387004 | Business Start Up | 8 | |
| ENPR6388004 | Product Development Process | 8 | |
| ENPR6389004 | Employability and Entrepreneurial Skill in New Business | 4 | |
| **Enrichment Program II** | | | |
| ENPR6393004 | Growing a Business | 8 | |
| ENPR6394004 | Business Development Process | 8 | |
| ENPR6395004 | Employability and Entrepreneurial Skill in Business Experience | 4 | |

### Community Impact Internship Track

| Code | Course Name | SCU | Total |
|---|---|---|---|
| **Enrichment Program I** | | | 20 |
| CMDV6731004 | Community Outreach Project Implementation | 8 | |
| CMDV6732004 | Community Outreach Project Design | 8 | |
| CMDV6733004 | Employability and Entrepreneurial Skill in Community Outreach | 4 | |
| **Enrichment Program II** | | | |
| CMDV6737004 | Community Development Project Implementation | 8 | |
| CMDV6738004 | Community Development Project Design | 8 | |
| CMDV6739004 | Employability and Entrepreneurial Skill in Community Development | 4 | |

### Study Abroad Track

| Code | Course Name | SCU | Total |
|---|---|---|---|
| **Elective courses list for study abroad*** | | | 20 |
| **Enrichment Program I** | | | |
| GLOB6093004 | Elective Course for Study Abroad 1 | 4 | |
| GLOB6094004 | Elective Course for Study Abroad 2 | 4 | |
| GLOB6095004 | Elective Course for Study Abroad 3 | 4 | |
| GLOB6096004 | Elective Course for Study Abroad 4 | 4 | |
| GLOB6097004 | Elective Course for Study Abroad 5 | 2 | |
| GLOB6098004 | Elective Course for Study Abroad 6 | 2 | |
| GLOB6099004 | Elective Course for Study Abroad 7 | 2 | |
| GLOB6100004 | Elective Course for Study Abroad 8 | 2 | |
| GLOB6101004 | Elective Course for Study Abroad 9 | 2 | |
| GLOB6102004 | Elective Course for Study Abroad 10 | 2 | |
| GLOB6103004 | Elective Course for Study Abroad 11 | 2 | |
| GLOB6104004 | Elective Course for Study Abroad 12 | 2 | |
| GLOB6257004 | Elective Course for Study Abroad 25 | 4 | |
| GLOB6258004 | Elective Course for Study Abroad 26 | 2 | |
| GLOB6259004 | Elective Course for Study Abroad 27 | 2 | |

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

## Specific Independent Study

| Code | Course Name | SCU | Total |
|---|---|---|---|
| For students who take Specific Independent Study Track in either odd or even semester, they should take these courses: | | | 20 |
| **Enrichment Program I/II** | | | |
| CSIS6198004 | Course Certification | 3 | |
| CSIS6199004 | Technical Skill Enrichment | 4 | |
| CSIS6200004 | Industrial Project | 9 | |
| CSIS6201004 | Soft Skill Enrichment | 4 | |
| CSIS6202004 | Elective Course for Specific Independent Study 1 | 8 | |
| CSIS6203004 | Elective Course for Specific Independent Study 2 | 8 | |
| CSIS6204004 | Elective Course for Specific Independent Study 3 | 6 | |
| CSIS6205004 | Elective Course for Specific Independent Study 4 | 6 | |
| CSIS6206004 | Elective Course for Specific Independent Study 5 | 6 | |
| CSIS6207004 | Elective Course for Specific Independent Study 6 | 5 | |
| CSIS6208004 | Elective Course for Specific Independent Study 7 | 5 | |
| CSIS6209004 | Elective Course for Specific Independent Study 8 | 5 | |
| CSIS6210004 | Elective Course for Specific Independent Study 9 | 5 | |
| CSIS6211004 | Elective Course for Specific Independent Study 10 | 4 | |
| CSIS6212004 | Elective Course for Specific Independent Study 11 | 4 | |
| CSIS6213004 | Elective Course for Specific Independent Study 12 | 4 | |
| CSIS6214004 | Elective Course for Specific Independent Study 13 | 4 | |
| CSIS6215004 | Elective Course for Specific Independent Study 14 | 4 | |
| CSIS6216004 | Elective Course for Specific Independent Study 15 | 3 | |
| CSIS6217004 | Elective Course for Specific Independent Study 16 | 3 | |
| CSIS6218004 | Elective Course for Specific Independent Study 17 | 3 | |
| CSIS6219004 | Elective Course for Specific Independent Study 18 | 3 | |
| CSIS6220004 | Elective Course for Specific Independent Study 19 | 3 | |
| CSIS6221004 | Elective Course for Specific Independent Study 20 | 3 | |
| CSIS6222004 | Elective Course for Specific Independent Study 21 | 2 | |
| CSIS6223004 | Elective Course for Specific Independent Study 22 | 2 | |
| CSIS6224004 | Elective Course for Specific Independent Study 23 | 2 | |
| CSIS6225004 | Elective Course for Specific Independent Study 24 | 2 | |
| CSIS6226004 | Elective Course for Specific Independent Study 25 | 2 | |
| CSIS6227004 | Elective Course for Specific Independent Study 26 | 2 | |
| CSIS6228004 | Elective Course for Specific Independent Study 27 | 2 | |
| CSIS6229004 | Elective Course for Specific Independent Study 28 | 2 | |
| CSIS6230004 | Elective Course for Specific Independent Study 29 | 1 | |
| CSIS6231004 | Elective Course for Specific Independent Study 30 | 1 | |
| CSIS6232004 | Elective Course for Specific Independent Study 31 | 1 | |
| CSIS6233004 | Elective Course for Specific Independent Study 32 | 1 | |

*) For students who take BINUS 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 specific independent study outside BINUS University. Transferred courses will be transferred based on credit transfer policies on study program with total of 20 credits.

### The Table of Prerequisite for Psychology Study Program

*There is no list of courses prerequisites in this curriculum*

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

| No | Course Code | Course Name | Minimal Passing Grade | Semester |
|---|---|---|---|---|
| 1 | COMP6360004 | Algorithm and Programming* | C | 1 |
| 2 | COMP6840004 | Program Design Methods* | C | 1 |
| 3 | PSYC6224027 | Psychology of Learning | C | 1 |
| 4 | CHAR6030004 | Character Building: Pancasila | B | 2 |
| 5 | COMP6362004 | Data Structures* | C | 2 |
| 6 | PSYC6227027 | Research Methodology: Quantitative Methods* | C | 2 |
| 7 | COMP6852004 | Database Technology | C | 3 |
| 8 | PSYC6231027 | Cognitive Psychology | C | 3 |
| 9 | COMP6855004 | Software Engineering* | C | 4 |
| 10 | COMP6713004 | Operating System | C | 5 |
| 11 | PSYC6233027 | Research Methodology: Experimental Design | C | 5 |
| 12 | PSYC6049027 | Psychological Test Construction* | C | 5 |
| 13 | PSYC6238027 | Technology-Based Psychological Intervention* | C | 7 |
| 14 | ENPR6312005 | Venture Creation | C | 7 |

*) Tutorial