INFORMATION SYSTEMS FACULTY OF ENGINEERING

# 2023 STUDENT WORKLOAD REPORT





# Evaluating Student Workload: Findings and Implications from Recent Survey Data

#### A. PREFACE

This report outlines the results of a recent survey conducted to evaluate student workload across academic programs. The Information Systems study program has carried out this survey to better understand the time allocation and demands faced by students, both in terms of their academic responsibilities and personal commitments. This survey aims to get a comprehensive picture of how students manage various aspects of their lives, including academic activities, as well as the balance between extracurricular activities and personal commitments.

#### **B. REPORT STRUCTURE**

The following sections of this report will describe the survey methodology, describe the data findings, and present interpretations and recommendations based on the survey results. The accompanying diagram shows the distribution of responses and highlights key trends identified in the survey.

#### C. BENEFITS SURVEY

The benefits of a student workload survey include:

- 1. This survey can provide recommendations for improving the quality of learning.
- 2. This survey helps in assessing the achievements and suitability of the implemented curriculum.
- 3. This survey acts as a policy summary that can be used in future policy formulation.

# **D. METHODOLOGY**

#### 1. Data Collection Methodology

Survey activities are carried out to obtain data on student workload in improving the quality of learning. This survey is made for each course taken by students. Each survey is designed to represent a student's workload for a full semester. The method used to obtain student workload survey data is by using Google Form, which is part of the Google Docs service. The student workload survey was distributed to students online in the form of a questionnaire. Questionnaires consist of two main types of questions: qualitative questions and quantitative questions. Qualitative questions included response options such as "Yes," "Maybe," and "No," which were used to gauge students' attitudes and opinions toward various aspects of their workload. The distribution of responses on these qualitative questions reveals a variety of participant perspectives:

"Yes": This response was the most dominant, with the majority of participants selecting this option. This indicates a strong consensus or agreement on the topic or question being asked, reflecting positive acceptance or support for the issue being discussed.

**"Maybe":** This category indicates uncertainty or ambiguity among some participants. The percentage of respondents selecting "Maybe" indicates that some individuals are not completely sure or need more information before making a decision.

**"No":** Although less frequent than "Yes" or "Maybe," "No" responses indicate a segment of participants who disagree or reject the topic being discussed. This highlights the existence of differing opinions or doubts regarding the survey questions.

For the quantitative aspect, the questionnaire measures the duration of time students spend on face-to-face meetings, structured assignments, and independent study each week. This quantitative method allows detailed analysis of student workload and provides insight into the balance between various academic activities.

Data analysis was carried out using quantitative methods to identify main trends and categories of study load based on time reported by participants. By combining qualitative and quantitative data, this survey provides a comprehensive picture of students' academic experiences and areas that require further attention in efforts to improve the quality of learning.

#### 2. Population

This survey was conducted by involving undergraduate accounting students at the Undergraduate Program of Information System, Faculty of Engineering, Universitas Negeri Surabaya as respondents. The survey was conducted online through a *Google Form* form. The number of samples collected were 165 respondents, consisting of 88 respondents from the class of 2023, 26 respondents from the class of 2022, 51 respondents from the class of 2021. With a sampling period of 2 weeks.

#### 3. Question Components

This questionnaire consists of several main components designed to evaluate the implementation of face-to-face lectures, weekly assignment load, and independent study load. Each question component is designed to capture a specific aspect of the student's academic experience. Quantitative methods were used in the data analysis, with a focus on the distribution of responses and identification of key trends identified through the survey.

#### 4. Learning Load Analysis

To categorize student study load based on time spent, we can use the following formula. The learning load categorization formula is divided into 2 categories, namely courses (3 credits) and subjects (2 credits). This formula is designed to group study load into three categories based on time duration:

#### (3 Credit Units)

"Lower" if x < 120 minutes

Category= "Accordingly" if  $120 \le x \le 180$  minutes

"Over" if x > 180 minutes

# Information:

- "Lower": The learning load is categorized as "Lower" if the duration is less than 120 minutes. This indicates that the workload provided is less than the expected standard.
- "Accordingly,": Study load is categorized as "Accordingly" if the time duration is in the range of 120 to 180 minutes. This indicates that the workload is within a range that meets the established standards.
- "Over": The study load is categorized as "Over" if the time duration exceeds 180 minutes. This indicates that the workload is considered excessive.

#### (2 Credit Units)

 $\label{eq:category} \begin{array}{ll} \text{``Lower''} & \text{if $x < 90$ minutes} \\ \text{Category} = & \text{``Accordingly'' if $90 \le x \le 120$ minutes} \\ & \text{``Over''} & \text{if $x > 120$ minutes} \end{array}$ 

## Information:

- "Lower": The learning load is categorized as "Lower" if the duration is less than 90 minutes. This indicates that the workload provided is less than the expected standard.
- "Accordingly": Study load is categorized as "Accordingly" if the time duration is in the range of 90 to 120 minutes. This indicates that the workload is within a range that meets the established standards.
- "Over": The study load is categorized as "Over" if the time duration exceeds 120 minutes. This indicates that the workload is considered excessive.

## **E. SURVEY RESULTS**

#### E.1 Survey Part 1 (Subject with 3 credits)

1. Student spent one week in a face-to-face in a class

|    | COURSES                                     | Face to Face |        |        |  |
|----|---|--------------|--------|--------|--|
| NO | COURSES                                     | ACCORDINGLY  | LOWER  | OVER   |  |
| 1  | Linear Algebra and Matrices                 | 67.40%       | 26.70% | 5.80%  |  |
| 2  | Accounting Information Systems              | 73.30%       | 8.10%  | 18.60% |  |
| 3  | Basic Programming                           | 75.60%       | 23.00% | 22.10% |  |
| 4  | Introduction to Information Technology      | 70.90%       | 8.10%  | 20.90% |  |
| 5  | Database                                    | 80.20%       | 5.80%  | 14.00% |  |
| 6  | Human Computer Interaction                  | 82.60%       | 2.30%  | 15.10% |  |
| 7  | Data Structures                             | 79.10%       | 2.30%  | 18.60% |  |
| 8  | Database Management                         | 80.80%       | 3.80%  | 15.40% |  |
| 9  | Object-Oriented Programming                 | 50.00%       | 38.50% | 11.50% |  |
| 10 | Information System Strategy Design          | 61.50%       | 23.10% | 15.40% |  |
| 11 | Software Engineering                        | 57.70%       | 30.80% | 11.50% |  |
| 12 | Executive Information Systems               | 73.10%       | 7.70%  | 19.20% |  |
| 13 | Web Programming                             | 50.00%       | 34.60% | 15.40% |  |
| 14 | Enterprise Resource Planning                | 65.40%       | 23.10% | 11.50% |  |
| 15 | Information Systems Governance              | 76.90%       | 7.70%  | 15.40% |  |
| 16 | E-Business Technology and<br>Infrastructure | 46.20%       | 15.40% | 38.50% |  |

Table 1.1. Face to face activity score in 3 credit courses

| NO  | COURSES  | Face to Face |        |        |  |
|---|--|--------------|--------|--------|--|
| NO  | COURSES  | ACCORDINGLY  | LOWER  | OVER   |  |
| 17  | Data Mining  | 68.60%       | 7.80%  | 23.50% |  |
| 18  | IT Risk Management                                   | 72.00%       | 10.00% | 18.00% |  |
| 19  | Testing and Implementation of<br>Information Systems | 66.70%       | 21.60% | 11.80% |  |
| 20  | Research Methodology                                 | 58.80%       | 31.40% | 9.80%  |  |
| 21  | Information System Project<br>Management             | 74.50%       | 11.80% | 13.70% |  |
| 22  | IT Service Management                                | 75.60%       | 17.80% | 6.70%  |  |
| 23  | IT Audit   | 70.60%       | 23.50% | 5.90%  |  |
| 24  | Enterprise Information System                        | 70.20%       | 21.30% | 8.50%  |  |
| 25  | Mobile Programming                                   | 60.50%       | 26.30% | 13.20% |  |
| 26  | Business Intelligence                                | 62.50%       | 27.10% | 10.40% |  |
| 27  | Decision Support System                              | 77.10%       | 14.60% | 8.30%  |  |
| Avera   | ige Score  | 68.44%       | 17.56% | 14.77% |  |
| Number of subjects with above average<br>scores1614 |  | 14           | 13     |        |  |



Graphic 1.1. Percentage of student workload for 3 credit courses for face-to-face activities

X-Axis (Horizontal): Represent courses Y-Axis (Vertical): Represent workload (in percentage) **Current Status:** From table 1.1 and Graphic 1.1 represent that 68.44% of students feel the face-to-face workload is appropriate, with 17.56% finding it too low and 14.77% finding it too high.

# **Key Findings:**

- Average Workload Assessment: The overall average workload assessment indicates that 68.44% of students found the coursework to be appropriate, 17.56% felt it was lower than expected, and 14.77% considered it to be higher.
- Course Variation: There is significant variation in workload perception across different courses. Some courses, such as Human-Computer Interaction and Data Structures, were perceived as much lower than expected by a large percentage of students, while others, like E-Business Technology and Infrastructure, were deemed significantly higher than anticipated.
- **Course Balance:** While there are courses with a higher proportion of students feeling the workload was too high or too low, a majority of students find the workload to be appropriate for most courses.
- **High-Performing Courses:** Sixteen courses had a higher percentage of students reporting above-average scores, suggesting that these courses may be well-structured or have effective teaching methods.

# Workload by Course Category

- **Programming and Development:** Generally perceived as a high workload.
- Information Systems and Management: Varying levels of workload, with some courses being particularly demanding.
- Database and Data Analysis: Moderate to low workload.

#### **Recommendations:**

- Maintain Current Workload: Since the majority of students feel the face-to-face sessions are appropriate, it is advisable to maintain the current workload.
- Engage Students: Consider introducing more interactive elements in face-to-face sessions to engage the 17.56% who find it too low, without increasing the overall workload.

# 2. Students spent one week on **self-study** activity for each course.

Table 1.2. Self-study activity score in 3 credit courses

|    | COURSE   | Self Study  |        |        |  |
|----|--|-------------|--------|--------|--|
| NU | COURSE   | ACCORDINGLY | LOWER  | OVER   |  |
| 1  | Linear Algebra and Matrices                          | 50.00%      | 11.40% | 38.40% |  |
| 2  | Accounting Information Systems                       | 52.30%      | 2.30%  | 45.30% |  |
| 3  | Basic Programming                                    | 61.50%      | 3.50%  | 34.90% |  |
| 4  | Introduction to Information Technology               | 50.00%      | 3.50%  | 46.50% |  |
| 5  | Database   | 54.70%      | 2.30%  | 4.30%  |  |
| 6  | Human Computer Interaction                           | 58.10%      | 4.70%  | 37.20% |  |
| 7  | Data Structures                                      | 57.00%      | 4.70%  | 38.40% |  |
| 8  | Database Management                                  | 42.30%      | 19.20% | 38.50% |  |
| 9  | Object-Oriented Programming                          | 30.80%      | 26.90% | 42.30% |  |
| 10 | Information System Strategy Design                   | 53.80%      | 26.90% | 19.20% |  |
| 11 | Software Engineering                                 | 46.20%      | 23.10% | 30.80% |  |
| 12 | Executive Information Systems                        | 53.80%      | 38.50% | 30.80% |  |
| 13 | Web Programming                                      | 30.80%      | 19.20% | 50.00% |  |
| 14 | Enterprise Resource Planning                         | 46.20%      | 30.80% | 23.10% |  |
| 15 | Information Systems Governance                       | 42.30%      | 38.50% | 19.20% |  |
| 16 | E-Business Technology and<br>Infrastructure          | 31.40%      | 25.50% | 43.10% |  |
| 17 | Data Mining  | 31.40%      | 25.50% | 43.10% |  |
| 18 | IT Risk Management                                   | 43.10%      | 35.30% | 21.60% |  |
| 19 | Testing and Implementation of<br>Information Systems | 45.10%      | 37.30% | 17.60% |  |
| 20 | Research Methodology                                 | 41.20%      | 43.10% | 15.70% |  |
| 21 | Information System Project<br>Management             | 43.10%      | 17.60% | 39.20% |  |
| 22 | IT Service Management                                | 44.40%      | 35.60% | 20.00% |  |
| 23 | IT Audit   | 49.00%      | 39.20% | 11.80% |  |
| 24 | Enterprise Information System                        | 44.70%      | 42.60% | 12.80% |  |
| 25 | Mobile Programming                                   | 39.50%      | 34.20% | 26.30% |  |
| 26 | Business Intelligence                                | 41.70%      | 43.80% | 14.60% |  |
| 27 | Decision Support System                              | 62.50%      | 27.10% | 10.40% |  |

|  | COURSE   | Self Study  |        |        |  |
|--|----------|-------------|--------|--------|--|
| NU   | COURSE   | ACCORDINGLY | LOWER  | OVER   |  |
| Avera  | ge Score | 46.18%      | 24.53% | 28.71% |  |
| Number of subjects with above average scores |          | 13          | 16     | 14     |  |



Graphic 1.2. Percentage of student workload of 3 credit courses for self-study activities

X-Axis (Horizontal): Represent courses

Y-Axis (Vertical): Represent workload (in percentage)

**Current Status:** From table 1.2 and Graphic 1.2 represent that 46.18% of students feel the self-study workload is appropriate, while 28.71% feel it is too much and 24.53% feel it is too little.

# **Key Findings:**

- Average Workload Assessment: The overall average workload assessment indicates that 46.18% of students found the coursework to be appropriate, 24.53% felt it was lower than expected, and 28.71% considered it to be higher. This is a different distribution compared to the first table.
- Course Variation: Again, there is significant variation in workload perception across different courses. Some courses, like Database Management, were perceived

as much lower than expected by a large percentage of students, while others, like Information System Project Management, were deemed significantly higher than anticipated.

- Self-Study as a Significant Factor: In this table, "Self Study" is a prominent category, suggesting that many students found the coursework to be appropriate and manageable through independent study.
- **High-Performing Courses:** Thirteen courses had a higher percentage of students reporting above-average scores, indicating that these courses may have been well-structured or had effective teaching methods.

# **Recommendations:**

- **Balanced Adjustments:** Evaluate the self-study tasks to ensure they are aligned with the intended learning outcomes. Consider adjusting the volume or difficulty level to better meet the needs of students, especially the 28.71% who find it too overwhelming.
- **Provide Guidance:** Offer more structured guidance or resources for self-study to help students manage their time effectively.

| NO | COURSE                                 | Assignment  |        |        |  |
|----|--|-------------|--------|--------|--|
| NU | COURSE                                 | ACCORDINGLY | LOWER  | OVER   |  |
| 1  | Linear Algebra and Matrices            | 59.30%      | 19.80% | 20.90% |  |
| 2  | Accounting Information Systems         | 65.10%      | 2.30%  | 32.60% |  |
| 3  | Basic Programming                      | 30.20%      | 7.00%  | 62.80% |  |
| 4  | Introduction to Information Technology | 70.90%      | 3.50%  | 25.60% |  |
| 5  | Database                               | 36.00%      | 7.00%  | 57.00% |  |
| 6  | Human Computer Interaction             | 51.20%      | 4.70%  | 44.20% |  |
| 7  | Data Structures                        | 32.60%      | 4.70%  | 62.80% |  |
| 8  | Database Management                    | 26.90%      | 7.70%  | 65.40% |  |
| 9  | Object-Oriented Programming            | 26.90%      | 3.80%  | 69.20% |  |
| 10 | Information System Strategy Design     | 38.50%      | 7.70%  | 53.80% |  |
| 11 | Software Engineering                   | 30.80%      | 3.80%  | 65.40% |  |
| 12 | Executive Information Systems          | 30.80%      | 3.80%  | 65.40% |  |

3. Student's spent time in one week to finish a **structured assignment** in each course Table 1.3.Structured assignment activity score in 3 credit courses

| NO            | COURSE   | Assignment   |        |        |  |
|---------------|--|--------------|--------|--------|--|
| NO            | COURSE   | ACCORDINGLY  | LOWER  | OVER   |  |
| 13            | Web Programming                                      | 7.70%        | 3.80%  | 88.50% |  |
| 14            | Enterprise Resource Planning                         | 50.00%       | 11.50% | 38.50% |  |
| 15            | Information Systems Governance                       | 42.30%       | 11.50% | 46.20% |  |
| 16            | E-Business Technology and Infrastructure             | 19.60%       | 2.00%  | 78.40% |  |
| 17            | Data Mining  | 19.60%       | 2.00%  | 78.40% |  |
| 18            | IT Risk Management                                   | 51.00%       | 13.70% | 35.30% |  |
| 19            | Testing and Implementation of<br>Information Systems | 66.70%       | 7.80%  | 25.50% |  |
| 20            | Research Methodology                                 | 51.00%       | 23.50% | 25.50% |  |
| 21            | Information System Project<br>Management             | 29.40%       | 5.90%  | 64.70% |  |
| 22            | IT Service Management                                | 55.00%       | 15.60% | 28.90% |  |
| 23            | IT Audit   | 49.00%       | 31.40% | 19.60% |  |
| 24            | Enterprise Information System                        | 57.40%       | 25.50% | 17.00% |  |
| 25            | Mobile Programming                                   | 42.10%       | 18.40% | 39.50% |  |
| 26            | Business Intelligence                                | 47.90%       | 31.30% | 20.80% |  |
| 27            | Decision Support System                              | 64.60%       | 12.50% | 22.90% |  |
| Average Score |  | 42.69%       | 10.82% | 46.47% |  |
| Numb<br>score | per of subjects with above average<br>s              | age 13 11 1: |        | 12     |  |





X-Axis (Horizontal): Represent courses

Y-Axis (Vertical): Represent workload (in percentage)

**Current Status:** 46.47% of students feel the assignment workload is excessive, while only 42.69% find it appropriate.

# **Key Findings:**

- Average Workload Assessment: The overall average workload assessment indicates that 42.89% of students found the coursework to be appropriate, 10.82% felt it was lower than expected, and 46.47% considered it to be higher.
- Course Variation: There is significant variation in workload perception across different courses. Some courses, such as Web Programming, were perceived as much higher than expected by a large percentage of students, while others, like Research Methodology, were deemed significantly lower than anticipated.
- **High-Performing Courses:** Thirteen courses had a higher percentage of students reporting above-average scores, suggesting that these courses may be well-structured or have effective teaching methods.

## **Recommendations:**

- **Review and Reduce Workload:** The high percentage of students who feel overburdened by assignments suggests a need for reviewing and possibly reducing the quantity or complexity of assignments.
- **Quality Over Quantity:** Focus on the quality and relevance of assignments rather than the quantity. Ensure assignments are directly aligned with course objectives and avoid unnecessary tasks that may contribute to an excessive workload.
- **Stagger Deadlines:** Consider staggering assignment deadlines across the semester to prevent students from being overwhelmed at any one time.

#### Conclusion analysis with courses 3 credit unit

The average score for the 3CU student workload assessment can be seen in table 1. The total number of courses with 3 CU is 27 courses where the face-to-face category has a score of 68.44% for "ACCORDINGLY"; 17.56% for "LOWER" and 14.77% for "OVER". Meanwhile, the Self-study category had a score of 46.18% for "ACCORDINGLY"; 24.53% for "LOWER" and 28.71% for "OVER". And for the Assignment category it has a score of 42.69% for "ACCORDINGLY"; 10.82% for "LOWER" and 46.47% for "OVER".

| Accordingly  |        | Lower  | Over   |  |
|--------------|--------|--------|--------|--|
| Face to Face | 68.44% | 17.56% | 14.77% |  |
| Self Study   | 46.18% | 24.53% | 28.71% |  |
| Assignment   | 42.69% | 10.82% | 46.47% |  |

Table 1.4. Average value of face to face activities, self study and assignments

In Table 1.1, it can be seen that the yellow box represents the highest percentage in each category. Where the face-to-face and self-study categories have the highest "ACCORDINGLY" scores compared to the "LOWER" and "OVER" scores. Meanwhile, the assignment category has the highest "OVER" value compared to "ACCORDINGLY" and "LOWER" values. This can also be seen in Graph 1.4 where the blue bar graph "ACCORDINGLY" is higher in the face-to-face and self-study categories. Meanwhile, the yellow bar graph "OVER" is higher in the assignment category even though it has a score that is not too far from "ACCORDINGLY". This can be a consideration for study programs to adjust student loads, especially for assignments that exceed the 3CU load.

The average scores for the assessment of 3CU student workload can be seen in Table 1.4 The total number of courses with 3 CUs is 27, where for the face-to-face category, the scores are 68.44% for "ACCORDINGLY"; 17.56% for "LOWER", and 14.77% for "OVER". For the self-study category, the scores are 46.18% for "ACCORDINGLY"; 24.53% for "LOWER", and 28.71% for "OVER". And for the assignment category, the scores are 42.69% for "ACCORDINGLY"; 10.82% for "LOWER", and 46.47% for "OVER".

In Table 1.4, it can be observed that the yellow-highlighted cells represent the highest percentages in each category. The face-to-face and self-study categories have the highest "ACCORDINGLY" values compared to "LOWER" and "OVER". Conversely, the assignment category has the highest "OVER" value compared to "ACCORDINGLY" and "LOWER". This is also evident in Graph 1.4, where the blue "ACCORDINGLY" bars are taller for the face-to-face and self-study categories. On the other hand, the yellow "OVER" bars are taller for the assignment category, although the difference in scores compared to "ACCORDINGLY" is not very significant. These findings suggest that the academic program should consider adjusting the student workload, particularly for assignments that exceed the 3CU workload.



Graphic 1.4. Average percentage of student workload for 3 credit courses

#### **Recommendation**

#### **General Improvement Tips:**

- **Regular Feedback:** Continuously gather student feedback on workload throughout the semester to make timely adjustments.
- Time Management Workshops: Offer workshops or resources on time management and study strategies to help students handle their workload more effectively.
- Clear Communication: Ensure clear communication of expectations regarding each type of workload (face-to-face, self-study, assignments) so that students can plan their time appropriately.
- **In-depth Interviews:** Conducting in-depth interviews with students to delve deeper into the reasons why they perceive their workload as either excessively high or low.
- **Correlational Analysis:** Analyzing the correlation between workload and other factors such as academic performance, learning motivation, and student characteristics.
- Inter-Course Comparison: Comparing the results of this analysis with other courses to identify any similar or contrasting patterns.
- Enhancing Independent Learning Support: The academic program may consider providing more support for students in terms of independent learning, such as offering more structured learning materials or additional consultation sessions.

• **Mapping Student Difficulties:** A more detailed mapping of the difficulties faced by students in completing assignments is necessary. This can help the academic program to provide more specific assistance.

# E.2. Survey Part 2 (Subject with 2 credits)

1. Student spent one week in a **face-to-face** in a class

|  | Face to Face |        |        |  |  |
|--|--------------|--------|--------|--|--|
| COURSE                                       | ACCORDINGLY  | LOWER  | OVER   |  |  |
| Indonesian Language                          | 65.90%       | 23.50% | 10.60% |  |  |
| Physical Education and Fitness               | 82.60%       | 23.00% | 15.10% |  |  |
| Pancasila Education                          | 73.30%       | 18.60% | 8.10%  |  |  |
| Introduction to Business and<br>Management   | 77.90%       | 15.10% | 7.00%  |  |  |
| Digital Literacy                             | 69.80%       | 19.80% | 10.50% |  |  |
| Civics Education                             | 69.80%       | 19.80% | 10.50% |  |  |
| Human Resource Management                    | 77.90%       | 10.50% | 11.60% |  |  |
| Modeling and Simulation                      | 82.60%       | 5.80%  | 11.60% |  |  |
| Religion                                     | 81.40%       | 10.50% | 8.10%  |  |  |
| English                                      | 46.50%       | 48.80% | 4.70%  |  |  |
| Information and Business Process             | 65.10%       | 15.40% | 23.10% |  |  |
| Operational Research                         | 57.70%       | 26.90% | 15.40% |  |  |
| Supply Chain Management                      | 73.10%       | 7.70%  | 19.20% |  |  |
| Entrepreneurship                             | 69.20%       | 3.80%  | 26.90% |  |  |
| Probability and Statistics                   | 42.30%       | 19.20% | 38.50% |  |  |
| Information Systems Security                 | 69.20%       | 0.00%  | 30.80% |  |  |
| Average Score                                | 69.02%       | 16.78% | 15.73% |  |  |
| Number of subjects with above average scores | 11           | 8      | 5      |  |  |



Graphic 2.1. Percentage of student workload of 2 credit courses for face-to-face activities

X-Axis (Horizontal): Represent courses Y-Axis (Vertical): Represent workload (in percentage)

**Current Status:** From table 2.1 and Graphic 2.1 represent that 69.02% of students feel the self-study workload is appropriate, while 15.73% feel it is too much and 16.78% feel it is too little.

# **Key Findings:**

- **Overall Performance:** The average score across all courses is 69.02%, indicating a generally satisfactory level of student achievement.
- **Top-Performing Subjects:** Physical Education and Fitness, Modeling and Simulation, and Religion emerged as the top-performing subjects, with over 80% of students achieving above-average grades.
- **Challenging Subjects:** English and Probability and Statistics proved to be the most challenging courses, with less than 50% of students achieving above-average scores.
- **Subject Distribution:** The majority of courses (11) had more students achieving above-average grades compared to those performing below average. However, there were 5 courses with a higher number of students performing below average.

# **Recommendations:**

- **Targeted Support:** The analysis suggests a need for additional support in subjects with a high proportion of students performing below average, such as English, Probability and Statistics, and Information Systems Security.
- **Curriculum Review:** A review of the curriculum for challenging subjects could help identify potential areas for improvement and adjustment.
- **Resource Allocation:** Ensuring adequate resources, including qualified instructors and appropriate materials, for all courses can contribute to improved student performance.

|   | Self Study  |        |        |  |  |
|---|-------------|--------|--------|--|--|
| COURSE  | ACCORDINGLY | LOWER  | OVER   |  |  |
| Indonesian Language                             | 24.70%      | 56.50% | 18.80% |  |  |
| Physical Education and Fitness                  | 73.30%      | 11.60% | 15.10% |  |  |
| Pancasila Education                             | 73.00%      | 12.00% | 15.00% |  |  |
| Introduction to Business and<br>Management      | 61.60%      | 2.30%  | 36.00% |  |  |
| Digital Literacy                                | 50.00%      | 20.00% | 30.00% |  |  |
| Civics Education                                | 60.00%      | 20.00% | 20.00% |  |  |
| Human Resource Management                       | 80.00%      | 2.30%  | 17.70% |  |  |
| Modeling and Simulation                         | 73.00%      | 18.00% | 10.00% |  |  |
| Religion  | 37.20%      | 44.20% | 18.60% |  |  |
| English   | 78.00%      | 10.00% | 12.00% |  |  |
| Information and Business Process                | 80.00%      | 0.00%  | 20.00% |  |  |
| Operational Research                            | 62.00%      | 8.00%  | 30.00% |  |  |
| Supply Chain Management                         | 53.80%      | 3.80%  | 42.30% |  |  |
| Entrepreneurship                                | 67.00%      | 3.00%  | 30.00% |  |  |
| Probability and Statistics                      | 85.00%      | 5.00%  | 10.00% |  |  |
| Information Systems Security                    | 50.00%      | 7.70%  | 42.00% |  |  |
| Average Score                                   | 63.04%      | 14.03% | 22.97% |  |  |
| Number of subjects with above<br>average scores | 8           | 5      | 6      |  |  |

2. Students spent one week on **self-study** activity for each course.

| Table 2.2.Self-study activity score in | 2 | credit courses |
|--|---|----------------|
|--|---|----------------|



Graphic 2.2. Percentage of student workload of 2 credits courses for self-study activities

X-Axis (Horizontal): Represent courses Y-Axis (Vertical): Represent workload (in percentage)

**Current Status:** From table 2.2 and Graphic 2.2 represent that 63.04% of students feel the self-study workload is appropriate, while 22.97% feel it is too much and 14.03% feel it is too little.

#### **Key Findings**

- **Overall Performance:** The average score across all courses is 63.04%, with 8 subjects scoring above average.
- **Top-Performing Subjects:** Probability and Statistics had the highest average score at 85.00%, followed by Human Resource Management and Information and Business Process at 80.00%.
- Areas for Improvement: Indonesian Language, Physical Education and Fitness, Pancasila Education, and Religion showed a relatively high percentage of students scoring below average.
- **Subject Distribution:** The number of subjects with above-average scores is evenly distributed, with 8 subjects performing well.

## Recommendations

- **Targeted Support:** Provide additional resources and support for subjects with a high percentage of students scoring below average, such as Indonesian Language, Physical Education and Fitness, Pancasila Education, and Religion.
- **Curriculum Review:** Consider reviewing the curriculum for subjects with lower average scores to identify potential areas for improvement.
- **Student Engagement:** Explore strategies to increase student engagement and motivation in subjects where performance is lagging.
- **Data-Driven Approach:** Continue to use data analysis to identify trends and inform instructional decisions.

# 3. Students spent one week on **assignment** activity for each course.

|  | Assignment      |        |        |  |  |
|--|-----------------|--------|--------|--|--|
| COURSE                                     | ACCORDINGL<br>Y | LOWER  | OVER   |  |  |
| Indonesian Language                        | 44.70%          | 22.40% | 32.90% |  |  |
| Physical Education and Fitness             | 16.30%          | 66.30% | 17.40% |  |  |
| Pancasila Education                        | 26.70%          | 58.10% | 15.10% |  |  |
| Introduction to Business and<br>Management | 34.90%          | 29.10% | 36.00% |  |  |
| Digital Literacy                           | 30.20%          | 53.50% | 16.30% |  |  |
| Civics Education                           | 30.20%          | 53.50% | 16.30% |  |  |
| Human Resource Management                  | 36.00%          | 33.70% | 30.20% |  |  |
| Modeling and Simulation                    | 37.20%          | 36.00% | 26.70% |  |  |
| Religion                                   | 30.20%          | 55.80% | 14.00% |  |  |
| English                                    | 16.30%          | 72.10% | 11.60% |  |  |
| Information and Business Process           | 53.80%          | 3.80%  | 42.30% |  |  |
| Operational Research                       | 46.20%          | 26.90% | 26.90% |  |  |
| Supply Chain Management                    | 42.30%          | 30.80% | 26.90% |  |  |
| Entrepreneurship                           | 65.40%          | 0.00%  | 34.60% |  |  |
| Probability and Statistics                 | 34.60%          | 19.20% | 46.20% |  |  |
| Information Systems Security               | 34.60%          | 38.50% | 26.90% |  |  |
| Average Score                              | 36.23%          | 37.48% | 26.27% |  |  |

Table 2.3.Structured assignment activity score in 2 credit courses

|  | Assignment      |       |      |
|--|-----------------|-------|------|
| COURSE                                       | ACCORDINGL<br>Y | LOWER | OVER |
| Number of subjects with above average scores | 6               | 7     | 10   |



Graphic 2.3. Percentage of student workload for 2 credit courses for assignment activities

X-Axis (Horizontal): Represent courses Y-Axis (Vertical): Represent workload (in percentage)

**Current Status:** From table 2.3 and Graphic 2.3 represent that 36.23% of students feel the self-study workload is appropriate, while 26.27% feel it is too much and 37.48% feel it is too little.

# **Key Findings**

- Highest Workload:
  - Entrepreneurship stands out as the course with the most demanding workload, with 65.4% of students finding it difficult.
  - Information and Business Process and Physical Education and Fitness also present significant challenges for students, with 53.8% and 66.3% difficulty levels, respectively.

# • Lowest Workload:

 Probability and Statistics and Religion are perceived as the least demanding courses, with only 19.2% and 14.0% of students finding them difficult.

# • Average Difficulty:

• The average difficulty level across all courses is 36.23%, indicating a moderate level of workload for most students.

# • Distribution of Difficulty:

- The majority of courses fall within the moderate difficulty range (30-40%), suggesting a relatively balanced workload distribution.
- A smaller number of courses are considered either very easy (below 20%)
  or very difficult (above 50%).

## Conclusion analysis with courses 2 credit unit

Table 2.4. Average value of face to face activities, self study and assignments for 2 credit courses

|              | Accordingly | Lower  | Over   |
|--------------|-------------|--------|--------|
| Face to Face | 69.02%      | 16.78% | 15.73% |
| Self Study   | 63.04%      | 14.03% | 22.97% |
| Assignment   | 36.23%      | 37.48% | 26.27% |



Graphic 2.4. Student Workload Average Score for courses 2 CU

# Overview

Based on Table 2.4 and Graphic 2.4 the conclusion of student workload average score are:

- Face-to-Face Activities: The highest average score is achieved in Face-to-Face activities, indicating that students are generally performing well in these interactions.
- Self Study: While the average score is also above average for Self Study, it is slightly lower than Face-to-Face activities. This might suggest that students could benefit from additional support or resources for independent learning.
- Assignment: The average score for Assignments is still above average, but it shows the largest variation in performance, with a significant number of students scoring below average. This indicates that assignments might be challenging for some students, and interventions could be necessary to improve their performance.

#### **General Recommendations**

- 1. **Maintain Strong Performance in Face-to-Face Activities:** Continue to provide engaging and effective face-to-face instruction to maintain the high level of student performance.
- 2. Enhance Support for Self Study: Consider offering additional resources, tutoring, or workshops to support students in their independent learning. This could include online materials, study groups, or individualized guidance.
- 3. Address the Challenges in Assignments: Analyze the specific areas where students are struggling with assignments and implement strategies to improve their performance. This might involve providing clearer instructions, offering more frequent feedback, or offering additional practice opportunities.
- 4. **Monitor Student Progress:** Regularly assess student performance and adjust teaching strategies as needed to ensure that all students are succeeding.

#### Evaluation

The Information Systems program has conducted a departmental <u>meeting to discuss</u> the analysis of student workload and to explore improvements for the curriculum going forward. During this meeting, the faculty reviewed current student workload data and evaluated how it impacts learning outcomes. Based on this analysis, they identified areas for enhancement in the curriculum to better support student success and ensure that the program remains aligned with academic and industry standards.