

# Stress Level and Its Effect on Academic Performance of Computer Science Students

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**Abstract:** *This study investigated the impact of stress levels on the academic performance of first-year Bachelor of Science in Computer Science (BSCS) students at Surigao del Norte State University (SNSU) for the academic year 2025–2026. A descriptive-correlational quantitative research design was employed, with 65 respondents (32 males, 33 females) selected through purposive sampling. A structured questionnaire assessed five stress-related variables: Academic Workload, Time Management Skills, Course Difficulty, Learning Environment, and Peer/Social Pressure. Results revealed a grand overall mean of 2.93 (Agree/Moderate Stress Level) across all variables, with Time Management Skills registering the highest mean (2.98) and Peer/Social Pressure the lowest (2.86). The majority of respondents maintained an Above Average GWA of 2.35. Findings indicate that all five variables moderately and collectively affect academic performance. The study recommends integrating time management workshops, calibrating academic workload, improving learning environments, employing differentiated teaching strategies, and strengthening student support services to mitigate academic stress among BSCS students.*

**Keywords:** Academic Stress, Academic Performance, Computer Science Students, Time Management, Course Difficulty, Learning Environment, Peer Pressure, BSCS

## I. INTRODUCTION

The research titled "Stress Level and Its Effect on Academic Performance of Computer Science Students" examines the relationship between psychological stress and academic outcomes within the field of computer science (CS) education. Stress, conceptualized as the physiological and psychological response to perceived demands or threats, manifests uniquely among CS students through challenges such as intensive coursework, time-sensitive programming tasks, and the need to adapt to rapidly evolving technologies like artificial intelligence and cybersecurity. This study targets undergraduate and graduate CS students, assessing stress levels via validated instruments such as self-reported surveys or physiological indicators, and correlating them with academic performance measures including grades, assignment completion rates, examination scores, and proficiency in technical skills. The investigation seeks to determine whether elevated stress consistently diminishes performance or if adaptive coping mechanisms can alleviate its impact, thereby addressing the distinctive pressures inherent in a demanding STEM discipline.

The literature consistently demonstrates that stress significantly influences academic performance across various educational contexts. Lazarus and Folkman's (1984) transactional model of stress describes it as a process of appraisal where individuals evaluate stressors relative to their coping resources, often resulting in diminished cognitive function and motivation. In STEM fields, empirical studies indicate that elevated stress is associated with reduced retention and achievement; for example, Pascoe et al.'s (2020) meta-analysis of 24 studies in JAMA Pediatrics revealed that stress-reduction interventions can enhance academic outcomes by 11–23%. Focusing on computer science, Beasley and Fischer (2012) in the Journal of Computing Sciences in Colleges highlighted stressors such as complex code debugging



and competitive job markets, linking them to burnout and declining grades. Robbins et al. (2004) in the Journal of Educational Psychology quantified this effect, noting that academic overload-related stress predicts GPA reductions with effect sizes up to 0.30.

Computer science students encounter substantial stress due to the rigorous demands of the discipline, yet the precise mechanisms through which this stress impairs academic performance remain inadequately understood. Evidence suggests that stressors such as demanding coding assignments, technological advancements, and competitive internships contribute to cognitive overload, resulting in diminished concentration, increased errors in programming tasks, and heightened risks of attrition. However, the absence of comprehensive data on CS-specific stressors and their quantifiable effects on metrics like GPA and skill development hinders the development of effective interventions.

This study employs a mixed-methods approach, integrating quantitative surveys (e.g., the Perceived Stress Scale) and qualitative interviews with CS students, alongside analysis of academic records, to evaluate stress levels and their correlations with performance indicators over a semester. By identifying predominant stressors and evaluating interventions such as mindfulness workshops or flexible scheduling, the research aims to formulate evidence-based recommendations for CS programs.

### **Objectives of the Study**

The primary objective of this study is to investigate how stress affects the academic performance and skills of Computer Science students, identify key stressors, and propose evidence-based strategies to create a less overwhelming and more successful academic experience.

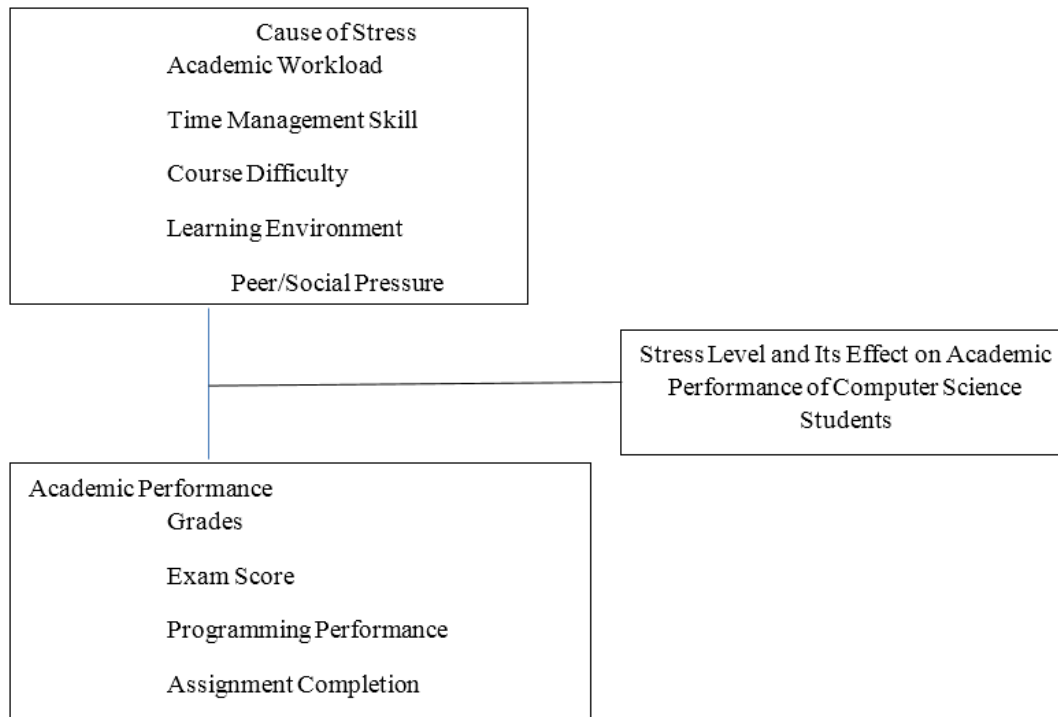
- To explore the human experience of stress among Computer Science students, investigating personal narratives and emotional dimensions to foster deeper empathy for their daily struggles in a demanding field.
- To assess the impact of stress on academic performance with a focus on well-being, evaluating how stress levels correlate with grades, project completion, and overall academic success, while highlighting the need to support students' mental health to prevent burnout.
- To identify coping mechanisms and support systems from a student-centered perspective, analyzing effective stress management strategies and recommending humanistic interventions such as counseling or community-building programs.
- To propose recommendations for reducing stress in educational environments, developing actionable, student-informed suggestions for universities aimed at creating a more compassionate and supportive academic culture.

## **II. REVIEW OF RELATED LITERATURE**

### **Conceptual Framework**

The conceptual framework presents the relationship between stress-related factors and academic performance of Computer Science students. Academic workload, time management skills, course difficulty, learning environment, and peer pressure are expected to influence students' stress levels. Increased stress levels may negatively affect students' grades and overall academic performance. Stress level serves as a mediating variable that explains how these factors affect academic outcomes.





### Academic Workload

Recent studies have significantly reshaped the understanding of stress among university professors. Previously, academic work was perceived as relatively flexible, autonomous, and less demanding. However, contemporary research presents a more realistic picture, emphasizing the increasing workload, mental strain, and pressure associated with the "publish or perish" culture (Gillespie et al., 2001), along with growing bureaucratic and administrative responsibilities (Bryson, 2004; Pace et al., 2022). In addition, professors operate in environments that require constant interpersonal interaction, which often involves regulating and managing emotional expressions, further contributing to psychological strain (Pace & Sciotto, 2021).

International research has identified multiple stressors affecting educators, including heightened cognitive and emotional demands, work overload, time pressure, work–life imbalance, job insecurity, and limited institutional resources (Shin & Jung, 2014; Mudrak et al., 2018). These stressors are critical to examine because they directly influence teaching effectiveness and student outcomes (Huyghebaert et al., 2018). Empirical findings consistently link occupational stress to emotional exhaustion and other indicators of impaired psychological health, as well as to work-related attitudes such as job satisfaction and motivation (Watts & Robertson, 2011; Bakker & Demerouti, 2017).

Much of the recent literature on workplace stress has focused on the imbalance between job demands and job resources. The Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2017) is widely used to explain how excessive demands, when not offset by adequate resources, lead to negative work perceptions and psychological strain (Bakker, Demerouti, & Sanz-Vergel, 2023). This framework has been extensively applied in academic settings to analyze both risk factors and protective mechanisms influencing professors' well-being (Dicke et al., 2018; Skaalvik & Skaalvik, 2018; Pace & Sciotto, 2021; Brondino et al., 2022).



### **Course Difficulty**

Course difficulty is a major academic stressor, particularly in rigorous disciplines such as computer science. Challenging coursework increases cognitive demands, which may contribute to mental fatigue and emotional exhaustion (Misra & McKean, 2000). The Job Demands–Resources model (Bakker & Demerouti, 2017) explains that high academic demands, such as difficult subjects, may lead to stress when not supported by adequate learning resources.

Subjects involving advanced algorithms, data structures, and system programming require abstract thinking and sustained concentration. When students struggle to grasp these concepts, they may experience frustration and decreased academic confidence. Research in STEM education indicates that perceived course difficulty is associated with higher levels of academic anxiety and lower motivation (Putwain, 2007). Students lacking strong foundational knowledge may find advanced computer science topics overwhelming, leading to avoidance behaviors and reduced performance.

### **Learning Environment**

The learning environment significantly influences students' stress levels and academic outcomes. A supportive and inclusive classroom climate promotes psychological safety and academic engagement (Fraser, 2012). According to the Job Demands–Resources framework (Bakker & Demerouti, 2017), institutional resources such as teacher support, clear instructions, and constructive feedback can buffer the negative effects of academic stressors. Transparent grading systems and well-structured course materials reduce uncertainty, which is a common source of stress among university students (Misra & McKean, 2000).

Collaborative learning environments, especially in programming courses, encourage peer interaction and shared problem-solving, which can improve understanding and reduce anxiety (Johnson & Johnson, 2009). Conversely, competitive or unsupportive classroom environments may heighten stress and decrease academic motivation. Access to academic resources such as laboratories, tutoring services, and counseling programs strengthens students' coping abilities and enhances overall well-being.

### **Peer/Social Pressure**

Peer and social pressure play significant roles in shaping students' academic experiences. Social comparison and competition for grades, scholarships, and internships may increase stress levels (Festinger, 1954). Expectations from family members and peers can create additional psychological pressure to perform well academically, particularly in competitive programs like computer science. Research by Beasley and Fischer (2012) suggests that perceived pressure and stereotype-related stress can negatively affect persistence and performance in STEM fields.

Excessive competition may lead to anxiety, self-doubt, and emotional exhaustion, which can impair academic functioning (Putwain, 2007). On the other hand, supportive peer relationships serve as protective factors against stress. Collaborative study groups and peer mentoring can enhance coping strategies and academic confidence (Johnson & Johnson, 2009).

### **Time Management Skills**

Time management skills are widely recognized as significant predictors of academic performance in higher education. Research shows that effective planning, prioritization, and scheduling positively influence students' ability to meet academic demands and reduce stress (Robbins et al., 2004; Macan et al., 1990). Students who organize their tasks efficiently tend to demonstrate higher levels of academic achievement and lower levels of anxiety (Britton & Tesser, 1991). According to the stress appraisal theory of Lazarus and Folkman (1984), stress occurs when individuals perceive academic demands as exceeding their coping resources. Poor time management reduces students' sense of control, thereby increasing perceived stress and negatively affecting concentration and productivity.



Studies have also linked procrastination — a common time management issue — to higher academic stress and lower performance outcomes (Tice & Baumeister, 1997; Steel, 2007). When students delay completing assignments, they experience time pressure, sleep deprivation, and reduced cognitive efficiency, which may result in lower grades. In computer science programs, where projects often require extended hours of coding and debugging, proper time allocation becomes even more critical.

### **Synthesis of literature**

The reviewed literature shows that academic stress is influenced by the balance between demands and available resources. Among educators, increasing workload, administrative responsibilities, and performance expectations contribute to emotional exhaustion and reduced well-being. The Job Demands–Resources model explains that excessive demands lead to stress when not supported by sufficient resources such as autonomy, social support, and meaningful work.

Similarly, students experience stress due to poor time management, challenging coursework, unsupportive learning environments, and peer pressure. Effective time management, structured study habits, supportive classrooms, and positive peer relationships help reduce stress and improve academic performance. Overall, academic well-being depends on maintaining a balance between academic demands and supportive resources.

## **III. METHODS**

### **3.1 Research Design**

This study used a quantitative research design to determine the impact of stress levels on the academic performance of first-year Bachelor of Science in Computer Science (BSCS) students at Surigao del Norte State University (SNSU) for the academic year 2025–2026. Specifically, this study employed a descriptive-correlational research design. The descriptive component was used to assess the level of stress experienced by first-year BSCS students across three identified stressors: academic workload, time management skills, and course difficulty. The correlational component was used to examine the relationship between the students' stress levels and their academic performance as reflected in their General Weighted Average (GWA).

### **3.2 Research Locale**

This study was conducted at Surigao del Norte State University (SNSU), a state higher education institution located in Surigao del Norte, Philippines. SNSU offers a Bachelor of Science in Computer Science program wherein students are regularly exposed to rigorous academic activities such as programming courses, laboratory work, and multiple examinations. The university was selected as the research locale because it provides an environment where first-year BSCS students are likely to encounter significant academic stressors including substantial academic workload, course difficulty, and challenges in time management — all of which are central variables in this study.

### **3.3 Respondents of the Study**

The respondents of this study were first-year Bachelor of Science in Computer Science (BSCS) students enrolled at Surigao del Norte State University (SNSU) during the academic year 2025–2026. First-year students were specifically selected because they are transitioning from secondary to tertiary education, making them particularly susceptible to academic stress and adjustment challenges. The researchers employed purposive sampling in the selection of respondents. A total of 65 respondents participated in the study, comprising 32 males and 33 females, predominantly aged 18 to 20 years old.

### **Research Instrument**

The primary instrument for data gathering in this study was a structured survey questionnaire designed by the researchers. The questionnaire was divided into two parts. Part I gathered the demographic information of the



respondents including age, sex, year level, and General Weighted Average (GWA). Part II contained statements assessing the respondents' perceived stress levels in relation to their academic performance. The stress indicators were categorized into three dimensions: Academic Workload (Items 1–12), Time Management Skills (Items 13–24), and Course Difficulty (Items 25–35). Respondents indicated their level of agreement using a 5-point Likert Scale.

**TABLE I. Likert Scale for Stress Level Assessment**

Scale	Verbal Interpretation	Description
5	Strongly Agree	The stressor is experienced at a very high level and greatly affects performance
4	Agree	The stressor is frequently experienced and noticeably affects performance
3	Neutral	The stressor is sometimes experienced with moderate effect on performance
2	Disagree	The stressor is rarely experienced and minimally affects performance
1	Strongly Disagree	The stressor is not experienced and does not affect performance

**Statistical Treatment of Data**

The following statistical tools were used to analyze the data: (1) Frequency and Percentage ( $\% = f/N \times 100$ ) to describe the demographic profile of the respondents; (2) Weighted Mean ( $\bar{x} = \sum fx/N$ ) to determine the level of stress experienced by respondents on each dimension; (3) Standard Deviation ( $SD = \sqrt{[\sum(x - \bar{x})^2/N]}$ ) to measure the variability of stress level scores; and (4) Pearson Product-Moment Correlation Coefficient ( $r$ ) to determine the nature and strength of the relationship between stress level and academic performance (GWA). The level of significance was set at  $\alpha = 0.05$ .

**TABLE II. Scale for Interpreting the Weighted Mean**

Mean Range	Verbal Interpretation
4.21 – 5.00	Strongly Agree (Very High Stress Level)
3.41 – 4.20	Agree (High Stress Level)
2.61 – 3.40	Neutral (Moderate Stress Level)
1.81 – 2.60	Disagree (Low Stress Level)
1.00 – 1.80	Strongly Disagree (Very Low Stress Level)

**Ethical Considerations**

The researchers adhered to the following ethical standards throughout the study: (1) Informed Consent — all respondents were informed of the nature, purpose, and scope of the study before participation, which was entirely voluntary; (2) Confidentiality and Anonymity — all information provided by respondents was treated with strict confidentiality; (3) Data Integrity — all data gathered, analyzed, and reported were accurate, honest, and free from manipulation; (4) Respect for Persons — the dignity and well-being of all respondents were respected throughout the study; and (5) Institutional Compliance — the study was conducted only after securing necessary approvals from the research adviser and the administration of SNSU.

**IV. PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA**

This chapter presents the data gathered from the respondents, including the analysis and interpretation of findings regarding the factors affecting the academic performance of BSCS students. Specifically, it covers the respondents'

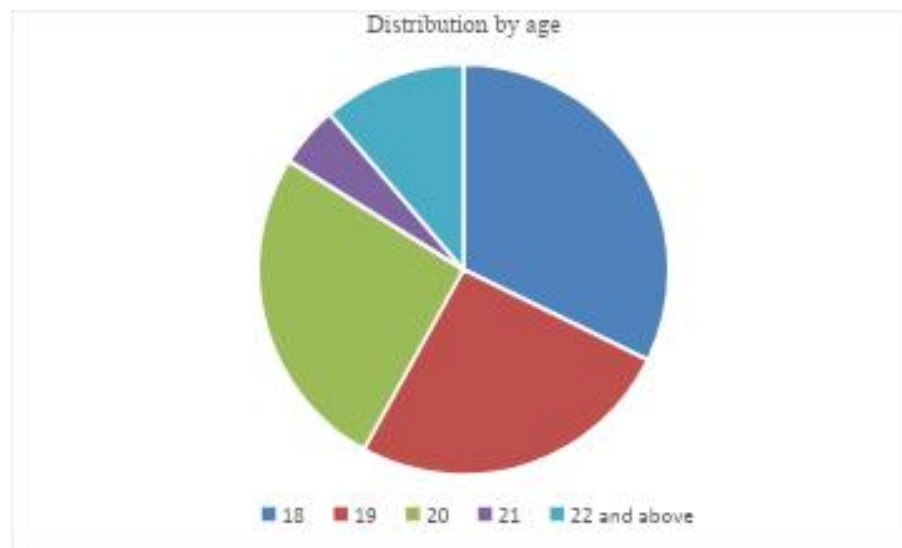


profile, their General Weighted Average (GWA), and the assessed impact of Academic Workload, Time Management Skills, Course Difficulty, Learning Environment, and Peer/Social Pressure on their academic performance. A total of sixty-five (65) BSCS students participated in the study.

**Profile of the Respondents**

**TABLE III. Distribution by Age**

Age	Frequency	Percentage
18	20	30.77%
19	16	24.62%
20	16	24.62%
21	3	4.62%
22 and above	7	10.77%
<b>Total</b>	<b>65</b>	<b>100%</b>

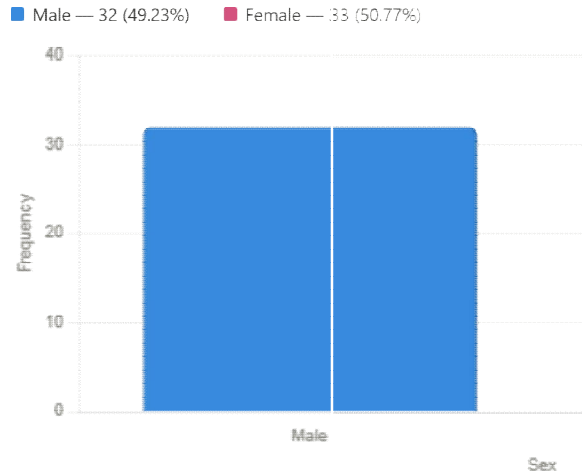


The majority of respondents are 18 years old (30.77%), followed by 19 and 20-year-olds at equal proportions (24.62% each). This reflects a typical incoming college cohort, consistent with students transitioning directly from senior high school.

Sex	Frequency	Percentage
Male	32	49.23%
Female	33	50.77%
<b>Total</b>	<b>65</b>	<b>100%</b>

**TABLE IV. Distribution by Sex**

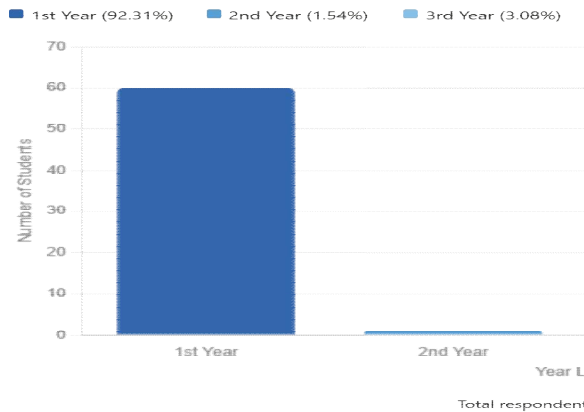




The sample is nearly balanced, with females slightly edging out males (50.77% vs. 49.23%). This near-parity strengthens the representativeness of the study across gender lines.

**TABLE V. Distribution by Year Level**

Year Level	Frequency	Percentage
1st Year	60	92.31%
2nd Year	1	1.54%
3rd Year	2	3.08%
4th Year	2	3.08%
<b>Total</b>	<b>65</b>	<b>100%</b>

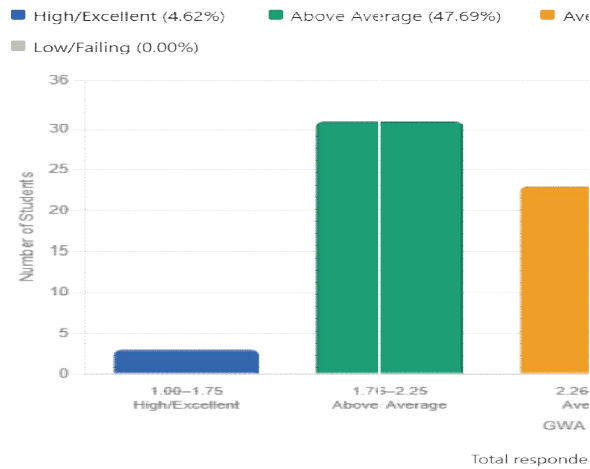


An overwhelming 92.31% are first-year students, making the findings especially relevant to the freshman experience. The small presence of upper-year students is negligible and likely incidental.



**TABLE VI. Distribution by General Weighted Average (GWA)**

GWA Range	Description	Frequency	Percentage
1.00 – 1.75	High/Excellent	3	4.62%
1.76 – 2.25	Above Average	31	47.69%
2.26 – 2.75	Average	23	35.38%
2.76 – 3.00	Below Average	8	12.31%
3.01 – 5.00	Low/Failing	0	0.00%
<b>Total</b>		<b>65</b>	<b>100%</b>



These results indicate that most respondents maintain a satisfactory to above-average academic standing, with a mean GWA of 2.35. This suggests that while students are generally performing adequately, there is still room for improvement especially for those in the average and below-average categories.

**TABLE VII. Assessment of Academic Workload**

Indicators	Mean	Verbal Interpretation
Grades	2.98	Agree
Exam Score	2.95	Agree
Programming Performance	2.89	Agree
Assignment Completion	3.06	Agree
<b>Overall Mean</b>	<b>2.95</b>	<b>Agree</b>



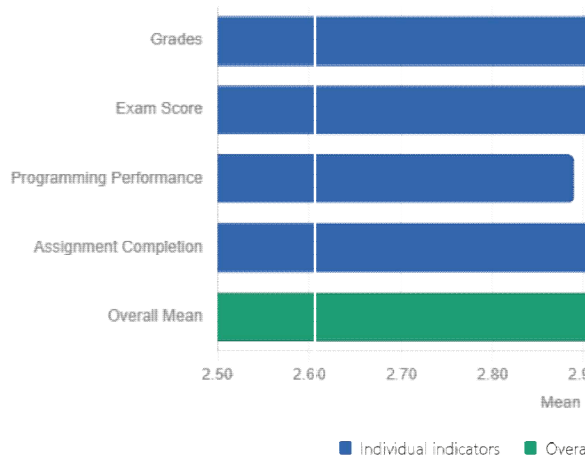


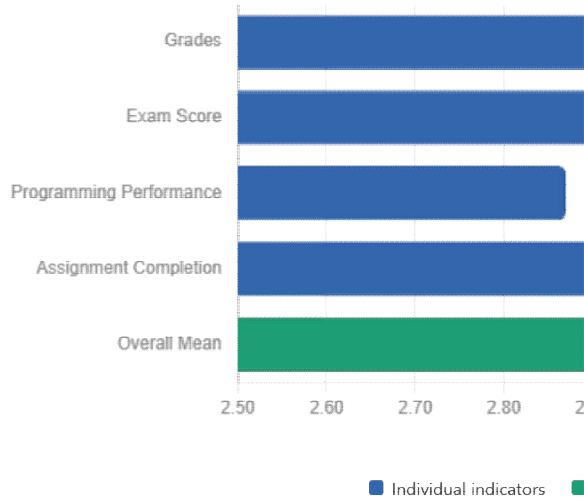
Table VII presents the respondents' assessment of how Academic Workload affects their academic performance. Among the four sub-indicators, Assignment Completion obtained the highest mean of 3.06, followed by Grades with a mean of 2.98, Exam Score with 2.95, and Programming Performance with the lowest mean of 2.89. The overall mean of 2.95 is verbally interpreted as Agree, indicating that respondents moderately agree that their academic workload considerably affects their grades, exam performance, programming outputs, and ability to complete assignments.

**TABLE VIII. Assessment of Time Management Skills**

Indicators	Mean	Verbal Interpretation
Grades	3.06	Agree
Exam Score	3.01	Agree
Programming Performance	2.87	Agree
Assignment Completion	3.01	Agree
<b>Overall Mean</b>	<b>2.98</b>	<b>Agree</b>

Table VIII shows the respondents' assessment of the impact of Time Management Skills on their academic performance. Grades obtained the highest mean score of 3.06, followed by both Exam Score and Assignment Completion at 3.01, while Programming Performance recorded the lowest mean of 2.87. The overall mean of 2.98 is verbally interpreted as Agree, making it the highest-rated variable in this study. The findings suggest that students recognize the significant role of time management in maintaining their academic standing, particularly in managing study schedules and meeting deadlines.





**TABLE IX. Assessment of Course Difficulty**

Indicators	Mean	Verbal Interpretation
Grades	2.85	Agree
Exam Score	2.94	Agree
Programming Performance	2.98	Agree
Assignment Completion	2.91	Agree
<b>Overall Mean</b>	<b>2.92</b>	<b>Agree</b>

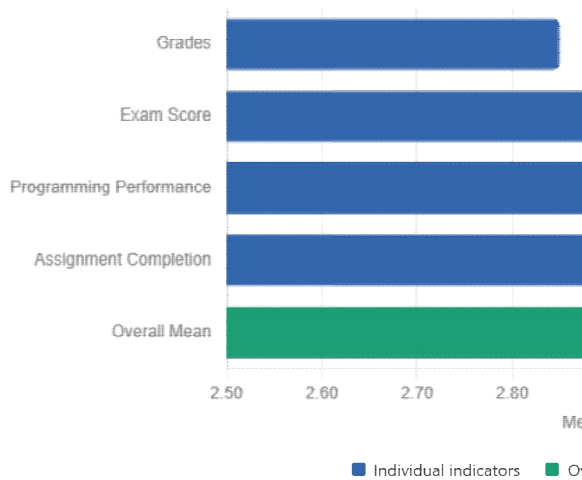


Table IX presents how Course Difficulty affects the academic performance of respondents. Programming Performance obtained the highest mean of 2.98, followed by Exam Score at 2.94, Assignment Completion at 2.91, and Grades with the lowest mean of 2.85. The overall mean of 2.92 is verbally interpreted as Agree. The relatively higher impact on



programming performance reflects the inherent difficulty of programming-related subjects, which require logical thinking, problem-solving skills, and consistent practice.

**TABLE X. Assessment of Learning Environment**

Indicators	Mean	Verbal Interpretation
Grades	2.95	Agree
Exam Score	2.87	Agree
Programming Performance	2.92	Agree
Assignment Completion	2.99	Agree
<b>Overall Mean</b>	<b>2.93</b>	<b>Agree</b>

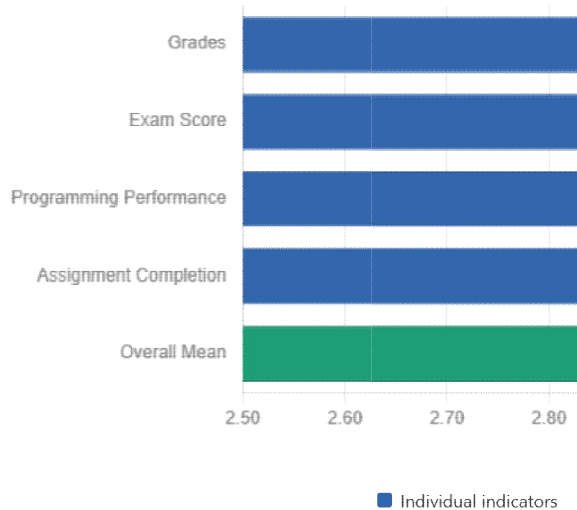


Table X presents the respondents' assessment of how their Learning Environment affects their academic performance. Assignment Completion obtained the highest mean of 2.99, followed by Grades at 2.95, Programming Performance at 2.92, and Exam Score with the lowest mean of 2.87. The overall mean of 2.93 is verbally interpreted as Agree, suggesting that the quality of the learning environment — including access to learning materials, classroom conditions, instructional support, and technological resources — has a moderate influence on students' academic performance.

**TABLE XI. Assessment of Peer/Social Pressure**

Indicators	Mean	Verbal Interpretation
Grades	2.77	Agree
Exam Score	2.86	Agree
Programming Performance	2.96	Agree
Assignment Completion	2.86	Agree
<b>Overall Mean</b>	<b>2.86</b>	<b>Agree</b>



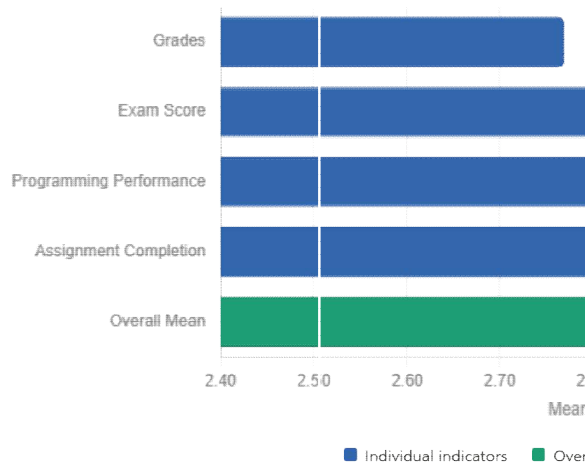


Table XI shows the respondents' assessment of how Peer/Social Pressure affects their academic performance. Programming Performance obtained the highest mean of 2.96, followed by Exam Score and Assignment Completion both at 2.86, while Grades recorded the lowest mean of 2.77. The overall mean of 2.86 is verbally interpreted as Agree, making Peer/Social Pressure the lowest-rated variable among all factors assessed. Nevertheless, the results indicate that peer influence and social dynamics still have a noticeable effect on students' academic performance.

#### 4.2 Summary of Findings

- The majority of BSCS student-respondents are 18 years old (30.77%), with a near-equal gender distribution (49.23% male and 50.77% female).
- Most respondents are first-year students (92.31%), suggesting that the challenges of academic transition are highly relevant to the study.
- The majority of respondents fall under the Above Average GWA category (1.76–2.25), with a mean GWA of 2.35, indicating generally satisfactory academic performance.
- Time Management Skills received the highest overall mean (2.98), indicating it has the most pronounced influence on academic performance.
- Academic Workload (2.95), Learning Environment (2.93), and Course Difficulty (2.92) were also moderately assessed as affecting academic performance.
- Peer/Social Pressure registered the lowest overall mean (2.86), though still interpreted as Agree, indicating its moderate but notable effect.
- The grand overall mean of all five variables is 2.93, verbally interpreted as Agree, suggesting that all identified factors collectively and moderately affect the academic performance of BSCS students.

## V. CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusions

- The first-year BSCS students at SNSU are predominantly of typical college age (18–20 years old), with a near-equal distribution between male and female respondents. The large proportion of first-year students underscores the relevance of studying stress factors at this stage, as freshmen are particularly vulnerable to academic adjustment challenges.
- The majority of respondents maintain an above-average to average GWA, suggesting that despite moderate levels of academic stress, students are generally able to sustain acceptable academic performance. However,



the presence of students in the below-average GWA category indicates that stress-related factors may be negatively affecting a portion of the student population.

- All five stress-related variables — Academic Workload, Time Management Skills, Course Difficulty, Learning Environment, and Peer/Social Pressure — are assessed as moderately affecting academic performance. This confirms that stress is a consistent and present concern among first-year BSCS students.
- Time Management Skills emerged as the most influential stress factor, indicating that students who struggle to manage their time effectively are more likely to experience adverse effects on their academic performance.
- Academic Workload, Learning Environment, and Course Difficulty follow closely in terms of influence, confirming that the demands of programming-intensive coursework, the adequacy of institutional support and facilities, and the perceived difficulty of subjects all play significant roles in shaping students' academic outcomes.
- Peer/Social Pressure, while the least influential among the five variables, still registers as a moderate stressor, implying that social dynamics within the BSCS program continue to have a meaningful effect on student performance.
- Overall, the study concludes that stress, across its various dimensions, moderately but significantly affects the academic performance of first-year BSCS students at SNSU. Addressing these stressors through targeted interventions is essential to improving student well-being and academic outcomes.

## 5.2 Recommendations

- It is recommended that the university integrate time management workshops and seminars into the orientation and early curriculum of first-year BSCS students. Since Time Management Skills registered the highest overall mean, equipping students with practical strategies for scheduling, prioritizing tasks, and meeting deadlines can significantly reduce stress and improve academic performance (Liu, 2024).
- It is recommended that BSCS faculty and program administrators review and calibrate the academic workload assigned to first-year students. A balanced distribution of tasks, projects, and examinations throughout the semester can help prevent academic overload (Fernández-García et al., 2025).
- It is recommended that the university invest in improving the overall learning environment for BSCS students, including access to computing laboratories, learning resources, and instructional technology. Okello (2023) found that students with higher academic achievement consistently perceive a more conducive learning environment.
- It is recommended that instructors and course coordinators explore differentiated teaching strategies and scaffolded learning approaches for programming subjects to address Course Difficulty. Providing additional tutorial sessions, peer mentoring, and supplementary instructional materials can help students cope with the inherent complexity of technical coursework (Bernstein et al., 2024).
- It is recommended that the university establish or strengthen student support services such as peer support groups, academic counseling, and stress management programs to address the effects of Peer/Social Pressure and create a more inclusive and supportive academic community.
- It is recommended that future researchers conduct a similar study using a larger and more diverse sample that includes students across all year levels and various programs to strengthen the generalizability of the findings (Barbayannis et al., 2022).
- It is recommended that future studies employ inferential statistics such as Pearson correlation or regression analysis to determine the degree and significance of the impact of each stress variable on academic performance, providing more precise and actionable data for program improvement (Obinna et al., 2025).



### ACKNOWLEDGMENT

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