Course Name: Probability and Statistics

Topic: Daily Study Hours of UCU Students

Department of Computing & Technology Semester: Advent 2025

OBJECTIVES

- To design and execute a field data collection exercise on student study habits.
- To organize and summarize both grouped and ungrouped data.
- To compute descriptive statistics such as mean, median, and standard deviation.
- To visualize findings using statistical software (Excel and Python).
- To write and present a well-structured scientific report.

METHODOLOGY

The study was conducted using a structured questionnaire distributed to a random sample of 63 UCU students. The population consisted of available students we reached out on campus in various places such as dining hall, computer labs,halls and hostels to mention but a few. Data was collected through face-to-face interaction. We were able to reach out to students in various courses such as Law,BSIT,BSCS,BSDC and Civil Engineering among others.

Each respondent provided details such as gender, course, and daily study hours. Quantitative data (study hours) were analyzed using Excel to obtain descriptive statistics. Ethical considerations such as consent and confidentiality were observed throughout the process.

UNGROUPED DATA FOR HOURS SPENT IN STUDIES PER DAY.

Study Hours(Per Day)	Frequency
1	2
2	4
3	3
4	10

5	6
6	3
7	3
8	8
10	4
12	4
14	2
15	2
16	1
18	2

GROUPED DATA

CLASS INTERVAL (HRS.)	FREQUENCY	MIDPOINT(X)	CUMULATIVE FREQUENCY	Fx	Fx^2
0-1.99	2	1.0	2	2	2
2-3.99	7	3.0	9	21	63
3-5.99	16	5.0	25	80	400
6-7.99	6	7.0	31	42	294
8-99	8	9.0	39	72	648
10-11.99	4	11.0	43	44	484

12-13.99	4	13.0	47	52	676
14-15.99	4	15.0	51	60	900
16-17.99	1	17.0	52	17	289
18-19.99	2	19.0	54	38	722
Totals	54			428	4478

Descriptive Statistics for Grouped Data

Grouped Frequency Distribution

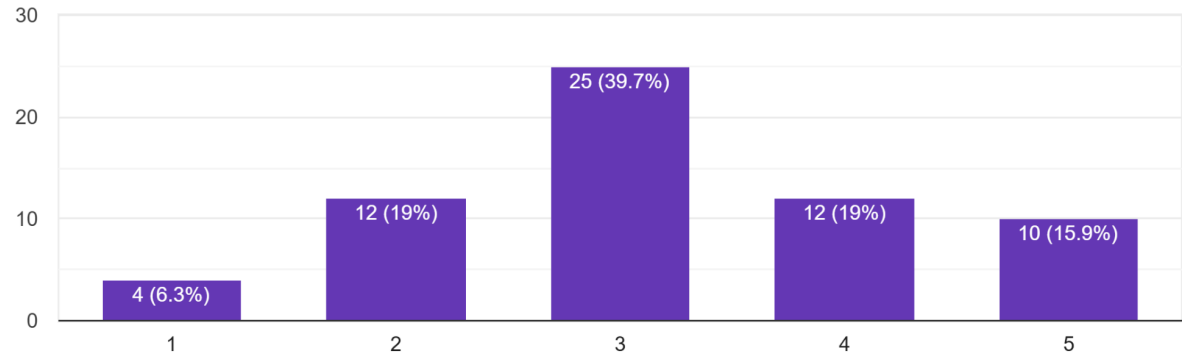
STATISTIC	FORMULA	VALUE	INTERPRETATION
Mean	$\Sigma fx / \Sigma f$	428 / 54 = **7.93 hrs**	On average, a UCU student studies about **8 hours per day**
Median	$L + ((N/2 - CF_{before}) / fm) \times c$	= 6 + ((27 - 25)/6)×2 = **6.67hrs**	The middle 50% of students study around **6–7 hours daily**

Mode	L + ((fm - f1) / (2fm - f1 - f2)) × c	= 4 + ((16−7) / (32−7−6)) ×2 ≈ **4.95 hr**	The most common study duration is **about 5 hours per day**
Range	Highest − Lowest	19 − 1 = **18 hrs**	Indicates wide variation in study habits
Variance (s^2)	$(\Sigma fx^2 / N) - (\bar{x})^2$	(4478 / 54) − (7.93)² = 82.92 − 62.88 = **20.04**	Shows data spread
Standard Deviation (s)	✓Variance	✓20.04 = **4.48 hrs**	

SCALE

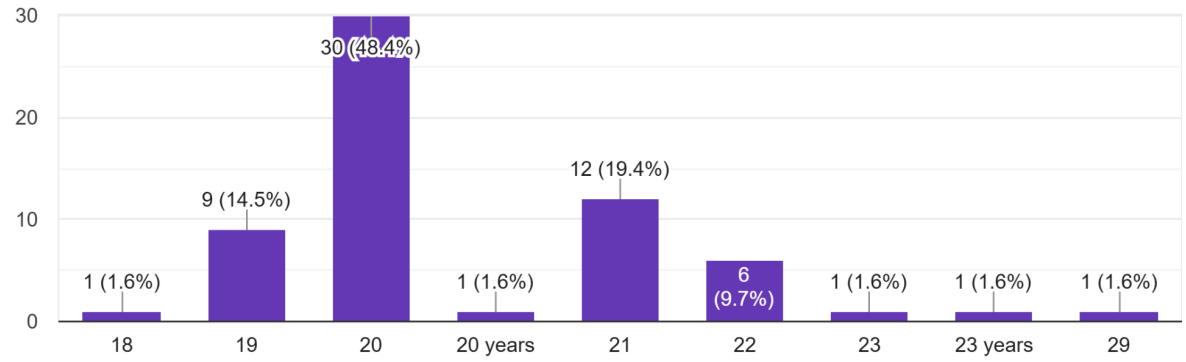
On a scale of 1–5, how disciplined are you in following your study schedule?_____

63 responses



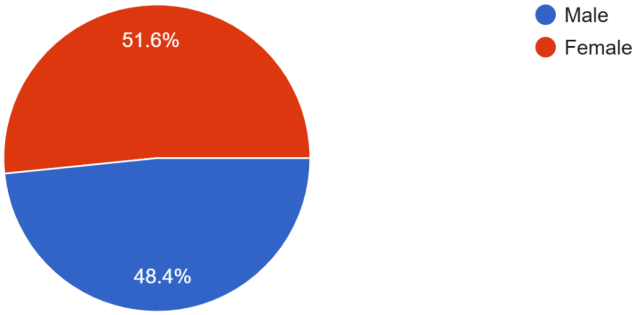
AGE

62 responses



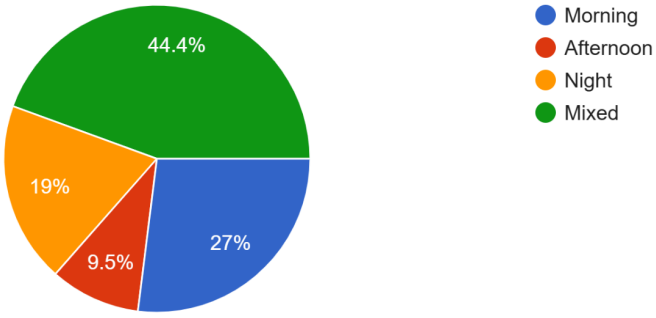
Gender

62 responses



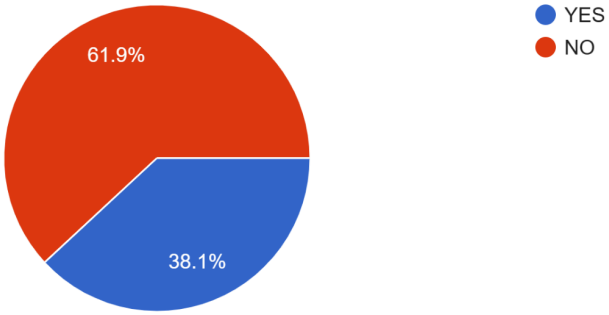
When do you mostly study? ( ) Morning ( ) Afternoon ( ) Night ( ) Mixed

63 responses

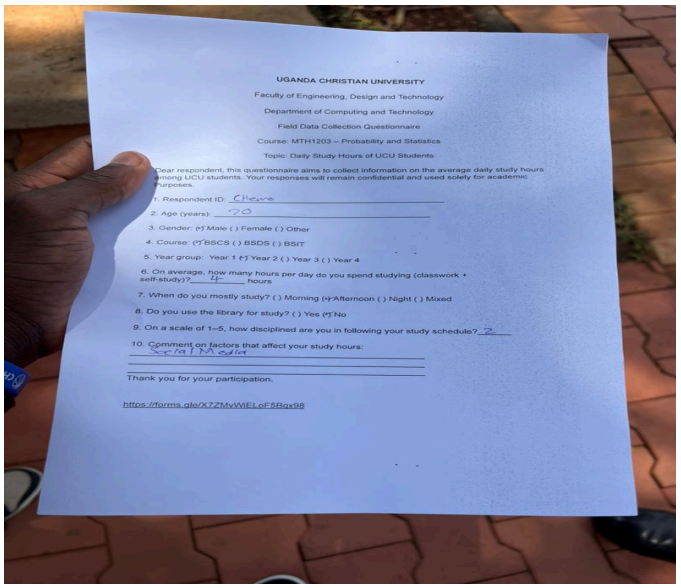


Do you use the library for study? ( ) Yes ( ) No

63 responses



IMAGES SHOWING OUR GROUP COLLECTING DATA USING THE QUESTIONNAIRE PAPER



UGANDA CHRISTIAN UNIVERSITY

Faculty of Engineering, Design and Technology

Department of Computing and Technology

Field Data Collection Questionnaire

Course: MTH1203 – Probability and Statistics

Topic: Daily Study Hours of UCU Students

Dear respondent, this questionnaire aims to collect information on the average daily study hours among UCU students. Your responses will remain confidential and used solely for academic purposes.

1. Respondent ID: Cheyne

2. Age (years): 20

3. Gender: (*) Male ( ) Female ( ) Other

4. Course: (*) BSCS ( ) BSDS ( ) BSIT

5. Year group: Year 1 (*) Year 2 ( ) Year 3 ( ) Year 4

6. On average, how many hours per day do you spend studying (classwork + self-study)? 12 hours

7. When do you mostly study? ( ) Morning (*) Afternoon ( ) Night ( ) Mixed

8. Do you use the library for study? ( ) Yes (*) No

9. On a scale of 1–5, how disciplined are you in following your study schedule? 2

10. Comment on factors that affect your study hours:

Social Media

Thank you for your participation.

https://forms.gle/X7ZMvWELoF5Bqx98

CONCLUSION

The study concludes that the average UCU student studies about four hours per day. While most students maintain a consistent schedule, some show very low or very high study times. We recommended that students develop balanced study routines and utilize library resources effectively. Further research could compare study hours with academic performance to identify deeper trends.

GROUP MEMBERS	STUDENT_ID	CONTRIBUTION
MALISH EMMANUEL ABUI	M25B13/032	Questionnaire design.
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MUGISHA AMOS	M25B13/028	Report writing, formatting
KAYEMBA ISAAC FRANK	M25B13/O42	data verification
NYAKAANA CEDRIC CHARLES	M25B13/036	Quality assurance, editing
MUGISHA JOEL	M25B13/008	field data collection