1. Math Assignment – Learning Journal Unit 1
2. Department of Computer Science, UoPeople
3. MATH 1280-01 - AY2025-T3
4. Instructor Gideon Effiong
5. **Friday, 7th February 2025**

**Analysis of Course Enrollment Data**

### Given Data:

| Number of Courses | Frequency | Relative Frequency | Cumulative Frequency |
| --- | --- | --- | --- |
| 1 | 30 | 0.6 |  |
| 2 | 15 |  |  |
| 3 |  |  |  |

### Total Number of Students:

The total number of students is **50**.

### Frequency for 3 Courses:

The sum of all frequencies must equal the total number of students:

Frequency for 3 courses=50−30−15=5\text{Frequency for 3 courses} = 50 - 30 - 15 = 5

Now the table updates as follows:

| Number of Courses | Frequency | Relative Frequency | Cumulative Frequency |
| --- | --- | --- | --- |
| 1 | 30 | 0.6 |  |
| 2 | 15 |  |  |
| 3 | 5 |  |  |

### Calculation of Relative Frequency:

Relative frequency is given by:

Relative Frequency=FrequencyTotal Number of Students\text{Relative Frequency} = \frac{\text{Frequency}}{\text{Total Number of Students}}

* **For 1 course:**

3050=0.6\frac{30}{50} = 0.6

* **For 2 courses:**

1550=0.3\frac{15}{50} = 0.3

* **For 3 courses:**

550=0.1\frac{5}{50} = 0.1

Now the table updates as follows:

| Number of Courses | Frequency | Relative Frequency | Cumulative Frequency |
| --- | --- | --- | --- |
| 1 | 30 | 0.6 |  |
| 2 | 15 | 0.3 |  |
| 3 | 5 | 0.1 |  |

### Calculation of Cumulative Frequency:

Cumulative frequency is the sum of all relative frequencies up to that row.

* **For 1 course:**

Cumulative Relative Frequency=0.6\text{Cumulative Relative Frequency} = 0.6

* **For 2 courses:**

0.6+0.3=0.90.6 + 0.3 = 0.9

* **For 3 courses:**

0.9+0.1=1.00.9 + 0.1 = 1.0

Final updated table:

| Number of Courses | Frequency | Relative Frequency | Cumulative Frequency |
| --- | --- | --- | --- |
| 1 | 30 | 0.6 | 0.6 |
| 2 | 15 | 0.3 | 0.9 |
| 3 | 5 | 0.1 | 1.0 |

### Answering the Questions:

#### 1. What proportion of students take exactly two courses?

The proportion of students taking exactly two courses is given by the **relative frequency** for 2 courses, which is **0.3**.

#### 2. What proportion of students take one or two courses?

The proportion of students taking one or two courses is given by the **cumulative relative frequency** for 2 courses, which is **0.9**.

### Final Answers:

1. The proportion of students taking exactly two courses is **0.3**.
2. The proportion of students taking one or two courses is **0.9**.