Explanation of GPA Calculation from a 20-Point Scale to a 4-Point Scale

Introduction

In my academic system, grades are initially awarded on a 20-point scale. To align with international GPA standards, I have converted my grades to the 4-point scale commonly used by universities in the United States and other countries. This document provides an overview of how these conversions are made based on my university's grading criteria.

Grading Scale Explanation

Below is a table that outlines how my grades on the 20-point scale translate to the 4-point scale. The university considers a passing grade to be 10 out of 20, with distinctions made for higher performance as shown.

Grade Remark	Grade (Out of 20)	Equivalent GPA (Out of 4)
A+	18 - 20	4.0
A	16 - 17.99	4.0
B	14 - 15.99	3.0
C	12 - 13.99	2.0
D	10 - 11.99	1.0
F	0 - 9.99	0.0

GPA Calculation Process

1. **Assigning 4-Point Equivalents**: Each grade I receive is converted to its equivalent on the 4-point scale using the above table. For instance, if I receive an 18, it translates to a 4.0, while a 14 translates to a 3.0.

2. **Calculating GPA**: After converting all course grades to the 4-point scale, the GPA is computed by taking the average of these converted grades. This average represents my GPA on the 4-point scale.

Example Calculation

If my grades for three courses are:

- Course 1: 18 (A+) → 4.0

- Course 2: 16.5 (A) → 4.0

- Course 3: 14.5 (B) → 3.0

My GPA is calculated as:

$$\text{GPA} = \frac{4.0 + 4.0 + 3.0}{3} = 3.67$$

Conclusion

This conversion approach is widely accepted and allows for an accurate reflection of my academic performance on an international scale. If you have any questions regarding the grading or conversion process, please feel free to reach out.

Machine Language and Assembly	Credit	Grade	Based on 16	SUM	Remark							
Islamic Thought 1 (Beginning a	2	20	40	4	8	A+	The first two years					
Quran	2	16	32	4	8	A+						
Family Schematization and Population	2	19	38	4	8	A+						
Islamic Revolution in Iran	2	20	40	4	8	A+						
Analytical history of beginning Islam	2	16.5	33	4	8	A+						
Persian Language	3	18	54	4	12	A+						
English Language	3	20	60	4	12	A+						
General Calculus 1	4	11	44	1	4	D						
General Mathematics 2	4	12.9	51.6	2	8	C						
Fundamentals of Mathematics	4	17.5	70	4	16	A						
Fundamentals of Computer Science and Programming	4	17	68	4	16	A						
Advanced Programming	4	12	48	2	8	C						
Probability 1	4	10.5	42	1	4	D						
Fundamentals of Combinatorics	4	12	48	1	4	C						
Differential Equations	3	18	54	4	12	A+						
Data Structures and Algorithms	4	10	40	1	4	D						
Data Mining	3	13	39	2	6	C						
Design and Analysis of Algorithm	4	15.75	63	3	12	B	The last two years					
Linear Algebra	4	11.18	44.72	1	4	D			GPA:	15.66286885		
General Physics 1	2	18	36	4	8	A+			based on 4	3.06557377		
Fundamentals of Logic	3	14.75	44.25	3	9	B						
General Biology	2	18	36	4	8	A+			Last two years:			
Financial Literacy and Personal Finance	2	20	40	4	8	A+			GPA:	16.34796875		
Statistical Methods	3	16.5	49.5	4	12	A			based on 4	3.375		
Principals of Computer Systems	3	13.15	39.45	2	6	C						
Introduction to Theory of Computation	3	13	39	2	6	C						
General Physics 2	2	16	32	4	8	A						
Scientific Writing	2	20	40	4	8	A+						
Artificial Intelligence	3	16.3	48.9	4	12	A						
Fundamentals of Operating Systems	4	19.5	78	4	16	A+						
Graph Theory and Applications	3	15.9	47.7	3	9	B						
Database Management Systems	3	17.5	52.5	4	12	A						
Theory of Computation	3	15	45	3	9	B						
Scientific Computing	4	15.5	62	3	12	B						
Compiler	3	16.3	48.9	4	12	A						
Machine Language and Assembly	3	19.25	57.75	4	12	A+						
Preliminary Information Theory	3	14.2	42.6	3	9	B						
Physical Education	1	19	19	4	4	A+						
The Foundations of Dynamic Systems	4	17.25	69	4	16	A						
Computational Neuroscience	4	18.5	74	4	16	A+						
Introduction to Bioinformatics	0	0	0	0	0	In progress						
Advanced Information Retrieval	0	0	0	0	0	In progress						
Islamic Thought 2 (Prophethood and Imamat)	0	0	0	0	0	In progress						
Sport 1	0	0	0	0	0	In progress						
Project	0	0	0	0	0	In progress						
Fundamentals of Economics	0	0	0	0	0	In progress						
			0		0							
			0		0							
SUM	122	643.93	1910.87	129	374							
SUM last two years	64	364.78	1046.27	76	216							