KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
BANGLADESH

PROVISIONAL CERTIFICATE

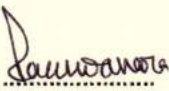*Subject to the Approval of the Academic Council*

Sumit Sarker

is declared to have fulfilled the prescribed requirements of the degree of

Bachelor of Science in Biomedical Engineering
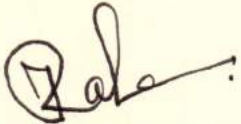
on March 12, 2020

*with a Cumulative Grade Point Average of **3.60** in the scale of 4.00.*

Prepared by :

Checked by :

Date : August 31, 2020

Controller of Examinations

N.B. Original Certificate will not be issued unless this Provisional Certificate is surrendered to the University. This Certificate is valid for next two years.

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
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TRANSCRIPT OF ACADEMIC RECORD
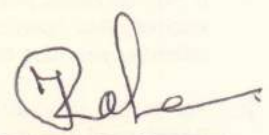
1.	Name of the Student	: **Sumit Sarker**
2.	Roll Number	: 1515028
3.	Nationality	: Bangladeshi
4.	Date of Enrolment	: December 09, 2015
5.	Degree Awarded	: **Bachelor of Science in Biomedical Engineering,** abbreviated as **B. Sc. Eng. (BME)**
6.	Sessions Attended	: 2015-2016 to 2018-2019
7.	Date of Completion of the Degree Requirments	: March 12, 2020
8.	Number of students in the Class	: 31
9.	Minimum Number of Credits Required for the Degree	: 160.00
10.	Total Number of Credits Earned by the Student	: 160.00
11.	Cumulative Grade Point Average (CGPA) Earned by the Student	: **3.60**
12.	Highest Cumulative Grade Point Average (CGPA) in the Class	: 3.98
13.	Number of Students in the Class Equal to or Better CGPA than this Student	: 8
14.	Medium of Instruction	: English

Four (4) additional sheets containing name of the courses studied and grades obtained therein are enclosed. General information are printed overleaf.

Prepared by : ....

Verified by : *Gilon Ara*

Date : December 15, 2020

Controller of Examinations

General Information

Grading System:

The letter grade system shall be used to assess the performance of the student and shall be as follows:

Numerical grade	Letter grade		Grade point
80% or above	A+	A Plus	4.00
75% to less than 80%	A	A	3.75
70% to less than 75%	A-	A Minus	3.50
65% to less than 70%	B+	B plus	3.25
60% to less than 65%	B	B	3.00
55% to less than 60%	B-	B Minus	2.75
50% to less than 55%	C+	C Plus	2.50
45% to less than 50%	C	C	2.25
40% to less than 45%	D	D	2.00
Less than 40%	F		0.00
Continuous Assessment (For courses extended over two regular Terms, such as project/thesis/design, etc.)	X		-
Withdrawal	W		-
Incomplete	I		
Non Credit Course	S/U (Satisfactory/Unsatisfactory)		

Calculation of GPA and CGPA:

Grade point average (GPA) is the weighted average of the grade points obtained in all the courses passed/completed by a student in a Term. 'F' grades will not be counted for GPA calculation. GPA of a Term will be calculated as follows:

$$GPA = \frac{\sum\limits_{i=1}^{n} C_i G_i}{\sum\limits_{i=1}^{n} C_i}$$

Where n is the total number of courses passed by the student, C_i is the number of credits allotted to a particular course i and G_i is the grade point corresponding to the grade awarded for the course.

Cumulative Grade Point Average (CGPA) gives the cumulative performance of the student from first Term up to any other Term to which it refers and is computed by dividing the total weighted grade points ($\sum C_i G_i$) accumulated up to the date by the total credit hours ($\sum C_i$). Both GPA and CGPA will be rounded off to the second place of decimal for reporting.

- Maximum Attainable CGPA= 4.00
- CGPA Required for Degree with HONOURS = 3.75 or better
- Minimum CGPA Required for Award of Degree = 2.20

Notes:

1. It may be noted that there is an anomaly regarding "sessions attended" and "date of completion of the degree requirements". The anomaly has been created due to delay in starting an academic session and extension of the academic session beyond stipulated calendar year due to various reasons.

2. For further information please contact Controller of Examinations, Khulna University of Engineering & Technology, Khulna 9203, Bangladesh or e-mail: <controller@kuet.ac.bd>

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
BANGLADESH

Additional Sheet-1
DETAILS OF ACADEMIC RECORD

Department	: Biomedical Engineering	**Roll No.**	: 1515028
Student's Name	: Sumit Sarker	**Session**	: 2015-2016

First Year First Term Period : March 2016 **to** September 2016

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 1101	Basic Biomedical Engineering	3.00	4.00	A+
2	EEE 1115	Electrical Circuits	3.00	4.00	A+
3	EEE 1116	Electrical Circuits Laboratory	1.50	3.50	A-
4	ME 1116	Engineering Drawing and Design	1.50	3.75	A
5	Ph 1115	Physics	3.00	2.75	B-
6	Ph 1116	Physics Laboratory	0.75	4.00	A+
7	Ch 1115	Chemistry	3.00	2.00	D
8	Ch 1116	Chemistry Laboratory	0.75	3.75	A
9	Math 1115	Differential and Integral Calculus	3.00	3.75	A

Earned Credits	: **19.50**	Grade Point Average (GPA)	: **3.39**
Cumulative Earned Credits	: **19.50**	Cumulative Grade Point Average (CGPA)	: **3.39**

First Year Second Term Period : September 2016 **to** February 2017
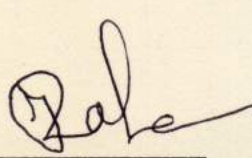
Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 1201	Biochemistry	3.00	3.75	A
2	BME 1202	Biochemistry Laboratory	0.75	3.00	B
3	EEE 1215	Analog Electronics	3.00	3.00	B
4	EEE 1216	Analog Electronics Laboratory	1.50	4.00	A+
5	CSE 1215	Computer Programming	3.00	3.75	A
6	CSE 1216	Computer Programming Laboratory	1.50	4.00	A+
7	Hum 1215	Technical English	3.00	3.75	A
8	Hum 1216	Technical English Laboratory	0.75	3.75	A
9	Math 1215	Coordinate Geometry and Differential Equations	3.00	3.75	A

Earned Credits	: **19.50**	Grade Point Average (GPA)	: **3.64**
Cumulative Earned Credits	: **39.00**	Cumulative Grade Point Average (CGPA)	: **3.52**

Prepared by : ....

Verified by : *Dil Ara*

Date : December 15, 2020

Controller of Examinations

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
BANGLADESH

Additional Sheet-2
DETAILS OF ACADEMIC RECORD

Department	: Biomedical Engineering	**Roll No.**	: 1515028
Student's Name	: Sumit Sarker	**Session**	: 2016-2017

Second Year First Term
Period : February 2017 to August 2017

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 2101	Human Anatomy	3.00	3.25	B+
2	BME 2151	Numerical Methods and Statistics	4.00	3.75	A
3	BME 2152	Numerical Methods and Statistics Laboratory	1.50	4.00	A+
4	ECE 2115	Digital Electronics and Logic Design	3.00	3.50	A-
5	ECE 2116	Digital Electronics and Logic Design Laboratory	1.50	4.00	A+
6	ME 2115	Basic Mechanics and Thermodynamics	3.00	2.75	B-
7	ME 2116	Basic Mechanics and Thermodynamics Laboratory	1.50	4.00	A+
8	Math 2115	Transforms Analysis	3.00	3.00	B

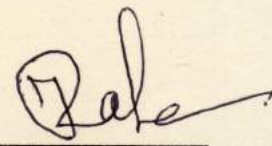|			
Earned Credits	: 20.50	Grade Point Average (GPA)	: 3.44
Cumulative Earned Credits	: 59.50	Cumulative Grade Point Average (CGPA)	: 3.49

Second Year Second Term
Period : August 2017 to January 2018

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 2201	Human Physiology	3.00	3.25	B+
2	BME 2202	Human Physiology Laboratory	1.50	4.00	A+
3	BME 2211	Signals and Systems	3.00	4.00	A+
4	BME 2212	Signals and Systems Laboratory	1.50	3.75	A
5	BME 2231	Biomedical Instrumentation	3.00	3.25	B+
6	BME 2232	Biomedical Instrumentation Laboratory	1.50	4.00	A+
7	Hum 2215	Economics and Sociology	3.00	4.00	A+
8	Math 2215	Linear Algebra, Complex Variable and Vector Analysis	4.00	4.00	A+

Earned Credits	: 20.50	Grade Point Average (GPA)	: 3.76
Cumulative Earned Credits	: 80.00	Cumulative Grade Point Average (CGPA)	: 3.56

Prepared by : ....

Verified by : *Dilu Ara*

Date : December 15, 2020

Controller of Examinations

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
BANGLADESH

Additional Sheet-3
DETAILS OF ACADEMIC RECORD

Department	: Biomedical Engineering	Roll No.	: 1515028
Student's Name	: Sumit Sarker	Session	: 2017-2018

Third Year First Term

Period : January 2018 to August 2018
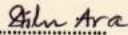
Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 3101	Cell Biology	3.00	4.00	A+
2	BME 3103	Bioelectricity	3.00	3.25	B+
3	BME 3111	Biomedical Signal Processing	3.00	3.00	B
4	BME 3112	Biomedical Signal Processing Laboratory	1.50	4.00	A+
5	BME 3114	Biomedical Modeling and Simulation Laboratory	1.50	3.50	A-
6	BME 3141	X-ray and Ultrasound Imaging	3.00	3.75	A
7	BME 3142	X-ray and Ultrasound Imaging Laboratory	1.50	3.75	A
8	CSE 3115	Microprocessors and Microcontrollers	3.00	3.50	A-
9	CSE 3116	Microprocessors and Microcontrollers Laboratory	1.50	4.00	A+

Earned Credits	: 21.00	Grade Point Average (GPA)	: 3.59
Cumulative Earned Credits	: 101.00	Cumulative Grade Point Average (CGPA)	: 3.57

Third Year Second Term
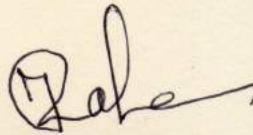
Period : August 2018 to January 2019

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 3200	Biomedical Systems Design Project	1.50	4.00	A+
2	BME 3211	Biomaterials and Prosthetics	3.00	3.00	B
3	BME 3213	Biomechanics	3.00	4.00	A+
4	BME 3231	Biomedical Devices and Control	3.00	3.50	A-
5	BME 3232	Biomedical Devices and Control Laboratory	1.50	3.75	A
6	BME 3241	Magnetic and Nuclear Imaging	3.00	3.50	A-
7	BME 3242	Magnetic and Nuclear Imaging Laboratory	1.50	3.75	A
8	ECE 3215	Body Sensor Networks	3.00	3.50	A-
9	ECE 3216	Body Sensor Networks Laboratory	1.50	4.00	A+

Earned Credits	: 21.00	Grade Point Average (GPA)	: 3.61
Cumulative Earned Credits	: 122.00	Cumulative Grade Point Average (CGPA)	: 3.57

Prepared by : ....

Verified by : Silu Ara

Date : December 15, 2020

Controller of Examinations

KHULNA UNIVERSITY OF ENGINEERING & TECHNOLOGY
BANGLADESH

Additional Sheet-4
DETAILS OF ACADEMIC RECORD

Department	: Biomedical Engineering	**Roll No.** : 1515028
Student's Name	: Sumit Sarker	**Session** : 2018-2019

Fourth Year First Term   **Period :** February 2019 **to** August 2019

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 4000	Project & Thesis	1.50	-	X
2	BME 4111	Biomedical Image Processing	3.00	3.50	A-
3	BME 4112	Biomedical Image Processing Laboratory	0.75	4.00	A+
4	BME 4131	Bio-optics	3.00	4.00	A+
5	BME 4141	Brain and Neuroengineering	3.00	3.50	A-
6	BME 4142	Brain and Neuroengineering Laboratory	0.75	4.00	A+
7	BME 4170	Seminar	0.50	4.00	A+
8	BME 4151	Clinical Engineering and Hospital Management	3.00	4.00	A+
9	BME 4133	Biosensors and Biochips	3.00	3.50	A-

Earned Credits	: 17.00	Grade Point Average (GPA)	: 3.74
Cumulative Earned Credits	: 139.00	Cumulative Grade Point Average (CGPA)	: 3.59

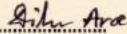**Note :** BME 4000 will be evaluated at the end of fourth year second term.

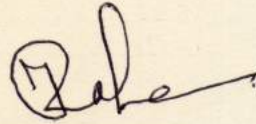**Fourth Year Second Term**   **Period :** August 2019 **to** January 2020

Serial No.	Course No.	Course Title	Credit	Grade Point	Grade
1	BME 4000	Project & Thesis	3.00+1.50=4.50	4.00	A+
2	BME 4231	Telemedicine and Health Care	3.00	3.25	B+
3	BME 4232	Telemedicine and Health Care Laboratory	1.50	4.00	A+
4	BME 4251	Biomedical Ethics and Safety	3.00	3.50	A-
5	BME 4221	Bioinformatics	3.00	3.75	A
6	BME 4217	Rehabilitation Engineering	3.00	3.75	A
7	BME 4215	Bio-Nanotechnology	3.00	3.50	A-

Earned Credits	: 21.00	Grade Point Average (GPA)	: 3.68
Cumulative Earned Credits	: 160.00	Cumulative Grade Point Average (CGPA)	: 3.60

Note : BME 4000 continued from the previous term.

Prepared by : ....

Verified by : ...... Hiba Ara

Date : December 15, 2020

Controller of Examinations