

## **PART ONE: GENERAL**

### **1. Introduction:**

Bangladesh University of Professionals (BUP), which is one of the public universities of Bangladesh, was established on June 5, 2008. The aim was to facilitate professional degrees and to run under-graduate, graduate and post graduate degrees through its faculties, affiliated and embodied colleges, institutes, academies or organizations. BUP, with its own unique features, is set up in a green landscape of Mirpur Cantonment located in Dhaka Metropolitan City. The university provides a tranquil, pollution free and secured campus life and above all, a congenial academic atmosphere.

BUP deals with not only the education of the Armed Forces personnel but also the students of civilian community from home and abroad. It welcomes those students who intend to dedicate their total attention and devotion to serious academic pursuits to build up better tomorrow for the nation. BUP is dedicated to provide high quality education that delivers real benefits for the students. Thus, BUP is the unique academic entity in the country, where blending between the civilian and the Armed Forces students of diverse skills, experience, exposure and attitude is possible.

### **2. Student Services**

#### **2.1 Guidance and Counseling**

The guidance and counseling service is available to students on academic and other matters of interest. A faculty member is assigned as Faculty Adviser for each section of a batch, who, as a routine matter, meets the students at least once a week and also attends them whenever the students feel necessary. The faculty adviser keeps close contact with the students in understanding and solving the problems relating to their academic program, facilities and other issues, if any.

#### **2.2 Scholarship**

Each year scholarships and stipend are granted to a large number of students based on criteria set by the university. The aim of the scholarships is rewarding the best performing students and also supporting the students who need financial assistance. The students are granted scholarships and stipends duly scrutinized by a committee.

#### **2.3 Extra-Curricular and Club Activities**

From the inception of FBS, the students of this faculty voluntarily participate in extra-curricular and club activities in order to enhance their physical, intellectual, moral and ethical development. The clubs are active and contribute successfully in arranging different events in the university. They organize inter-batch/department competitions, teams for inter-university and other competitions etc. They also organize different important events like cultural, sports, debate etc and participate in different events and competitions. The students of BUP are also connected with other universities through different clubs. The clubs that are functional in BUP are:

- Cultural Club (Sponsor: Department of Disaster & Human Security Management, FASS)
- Career Club (Sponsor: Department of Business Administration (General), FBS)
- Sports Club (Sponsor: Department of Management Studies, FBS)
- Business and Communication Club (Sponsor: Department of Marketing, FBS)
- Literature and Debating Club (Sponsor: Department of English, FASS)

- Global Affairs Council (Sponsor: Department of International Affairs, FSSS)

In coming days, the number of clubs will be more covering other important and interesting matters.

#### 2.4 Study Tour/Excursion and Industrial/Organizational Visits

FBS organizes visits to different industries and organizations for all the programs of FBS and Study Tour/Excursion for the students of BBA/MBA final year as part of their academic curriculum.

#### 2.5 Guest Lectures/Seminars

Seminars/workshops on important academic/business issues and lectures/presentations by eminent academicians/professionals/experts are organized throughout the academic year for the students.

#### 2.6 Tuition and other Fees

**1st Year (1st Semester), Total Courses: 6 [(Credits: 3 × 5) +1 = 16]**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Admission Fee	10,000.00
2	Registration Fee	1,000.00
3	Security Money/Caution Money (Refundable)	20,000.00
4	Tuition Fee	2,000.00
5	Examination Fee/Course Registration Fee	7,500.00
6	Library Fee	500.00
7	Grade Sheet Fee	500.00
8	Medical Fee	600.00
9	Sports Fee	600.00
10	Computer Lab and Training Aid Fee	600.00
11	Student Welfare Fee	2,000.00
12	Education Enhancement Fee	600.00
13	Cultural/Magazine Fee	300.00
14	Center Fee	500.00
15	Transport Fee	500.00
16	Recreation Fee	300.00
17	MT Development Fee	2,000.00
18	ID Card Fee	100.00
19	BUP Tie/Scarf Fee	500.00
20	Prospectus Fee	300.00
21	SMS Fee (for two years)	100.0
22.	BUP Picnic Fee	500.00
<b>Grand Total =</b>		<b>51,000.00</b>
<b>In Word: Fifty One Thousand Only</b>		

**1<sup>st</sup> Year (2<sup>nd</sup> Semester), Total Courses: 6 [(Credits: 3 × 6) = 18]**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Tuition Fee	2,000.00
2	Examination Fee/Course Registration Fee (5 x Courses)	9000.00
3	Library Fee	500.00
4	Grade Sheet Fee	500.00
5	Medical Fee	600.00
6	Sports Fee	600.00
7	Computer Lab and Training Aid Fee	600.00
8	Student Welfare Fee	2,000.00
9	Education Enhancement Fee	600.00
10	Cultural/Magazine Fee	300.00
11	Center Fee	500.00
12	Transport Fee	500.00
13	Recreation Fee	300.00
<b>Grand Total =</b>		<b>18,000.00</b>
<b>In Words: Eighteen Thousand Only</b>		

**2<sup>nd</sup> Year (1<sup>st</sup> Semester), Total Courses: 6 [(Credits: 3 × 5) +1 = 16]**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Tuition Fee	2,000.00
2	Examination Fee/Course Registration Fee (5 x Courses)	8000.00
3	Library Fee	500.00
4	Grade Sheet Fee	500.00
5	Medical Fee	600.00
6	Sports Fee	600.00
7	Computer Lab and Training Aid Fee	600.00
8	Student Welfare Fee	2,000.00
9	Education Enhancement Fee	600.00
10	Cultural/Magazine Fee	300.00
11	Center Fee	500.00
12	Transport Fee	500.00
13	Recreation Fee	300.00
<b>Grand Total =</b>		<b>17,000.00</b>
<b>In Words: Seventeen Thousand Only</b>		

**2<sup>nd</sup> Year (2<sup>nd</sup> Semester), Total Courses: 6 [(Credits: 3 × 4) +1+1 = 14]**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Tuition Fee	2,000.00
2	Examination Fee/Course Registration Fee (5 x Courses)	7000.00
3	Library Fee	500.00
4	Grade Sheet Fee	500.00
5	Medical Fee	600.00
6	Sports Fee	600.00
7	Computer Lab and Training Aid Fee	600.00
8	Student Welfare Fee	2,000.00
9	Education Enhancement Fee	600.00
10	Cultural/Magazine Fee	300.00
11	Center Fee	500.00
12	Transport Fee	500.00
13	Recreation Fee	300.00
<b>Grand Total =</b>		<b>16,000.00</b>
<b>In Words: Sixteen Thousand Only</b>		

**3<sup>rd</sup> Year 1<sup>st</sup> Semester - 4<sup>th</sup> Year 1<sup>st</sup> Semester: Each semester Total Courses 6 [(Credits: 3 × 5) +1 = 16]**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Tuition Fee	2,000.00
2	Examination Fee/Course Registration Fee (5 x Courses)	8000.00
3	Library Fee	500.00
4	Grade Sheet Fee	500.00
5	Medical Fee	600.00
6	Sports Fee	600.00
7	Computer Lab and Training Aid Fee	600.00
8	Student Welfare Fee	2,000.00
9	Education Enhancement Fee	600.00
10	Cultural/Magazine Fee	300.00
11	Center Fee	500.00
12	Transport Fee	500.00
13	Recreation Fee	300.00
<b>Grand Total =</b>		<b>17,000.00</b>
<b>In Words: Seventeen Thousand Only</b>		

**4<sup>th</sup> Year (2<sup>nd</sup> Semester)**  
**Total Courses: 3 (Credits: 3 × 3 = 9)**  
**Research: 5**  
**Total Credit = 9 + 3 + 2 = 14)**

Serial	Category of Fees / Charges	Amount (Tk.)
1	Tuition Fee	2,000.00
2	Examination Fee/Course Registration Fee (3 x Courses)	4,500.00
3	Library Fee	500.00
4	Research Fee	3,000.00
5	Provisional Certificate Fee	500.00
6	Grade Sheet Fee	500.00
7	Medical Fee	600.00
8	Sports Fee	600.00
9	Computer Lab and Training Aid Fee	600.00
10	Student Welfare Fee	2,000.00
11	Education Enhancement Fee	600.00
12	Cultural/Magazine Fee	300.00
13	Center Fee	500.00
14	Transport Fee	500.00
15	Recreation Fee	300.00
16	Viva-Voce	2,000.00
<b>Grand Total =</b>		<b>19,000.00</b>
<b>In Words: Nineteen Thousand Only</b>		

**Summary**

SERIAL	YEAR	SEMESTER	COURSE		RESAERCH	FIELD VISIT	CREDIT	AMOUNT (TK.)	
			Theory	Practical					
1	First	1 <sup>st</sup>	5	-	-	1	16	51,000.00	
2		2 <sup>nd</sup>	6	-	-	-	18	18,000.00	
3	Second	3 <sup>rd</sup>	5	-	-	1	16	17,000.00	
4		4 <sup>th</sup>	4	2	-	-	14	16,000.00	
5	Third	5 <sup>th</sup>	5	1	-	-	16	17,000.00	
6		6 <sup>th</sup>	5	-	-	1	16	17,000.00	
7	Forth	7 <sup>th</sup>	5	1	-	-	16	17,000.00	
8		8 <sup>th</sup>	3	-	5 Credits	-	14	19,000.00	
<b>Total =</b>							<b>126</b>	<b>172,000.00</b>	
<b>In Words: One Lac Seventy Two Thousand Only</b>									
								<b>Refundable =</b>	<b>20,000.00</b>
								<b>Total Cost =</b>	<b>1,52,000.00</b>
<b>In Words: One Lac Fifty Two Thousand Only</b>									

**Additional Fees/Payments (As Required):**

SER	CATEGORIES OF FEES/CHARGES	AMOUNT (TK)
1.	Re-admission Fee	5000.00
2.	Migration Certificate Fee	500.00
3.	Supplementary Final Exam Fee	4000.00

## **2.7 Security Money**

The students must pay specific amount as security money, which is refundable on completion of last semester. The following rules will apply for refund of security money:

- There will be no forfeiture, if a student opts to withdraw before the closing of admission activities allowing another candidate to avail the seat.
- 25% of the security money will be forfeited, if a student opts to withdraw before completion of one year after admission. However, rest of the money will be refunded on completion of 1<sup>st</sup> year.
- For withdrawal after 1<sup>st</sup> year of study, there will be no forfeiture of security money. But all other fees/charges (case by case basis) may be refunded to the student, and in such case the security money will be converted into caution money and the same may be refunded excluding any claim from BUP, if any.

## **2.8 Review of Fee Structure**

All fees mentioned in the above table will be reviewed as and when necessary by the university authority and the students will be liable to pay the fees as per changed/reviewed fees.

## **2.9 Deadline for Submission of Fees/Dues**

The 1st year students will have to clear all the fees during the admission process after publication of result. For subsequent semesters, the payment of all fees/dues must be maintained semester wise and the following rules will apply in this regard:

- The semester fees can be paid within 15 days after commencement of each semester without any penalty.
- The students may pay their fees after 1st 15 days within one month time by paying a penalty of Tk. 500.00 for each 15 days.
- If a student fails to pay the semester fees within one and a half month, his/her name will be dropped and the student will have to apply for re-admission, should he/she desires to continue his/her study. If approved, he/she may take re-admission paying required re-admission fee.

## **2.10 Course Load to Student**

The students must enroll for **6** courses in each semester. As a general rule, students are not given more than 5 theory courses in a semester. However, maximum six courses will be allowed, when a student is repeating a course for obtaining 'F' grade or they want to improve their previous grade. This will be allowed only once for a particular course and if the course is offered in the particular semester.

## **2.11 Conduct of Courses**

Generally a single teacher is assigned to plan and teach a particular course in a semester. The following guidelines will be followed for conduct of courses:

- At the beginning of the semester, the course teacher will prepare a course outline incorporating the course syllabus, performance evaluation and grading system (as laid down in the policy), list of suggested text books/references, and a tentative schedule of classes, examinations and events. He/she will distribute a copy of the same to each student registered for the course and will submit a copy to the Department Office.
- At least 2 (two) classes of 90 minutes each per week for each batch should be planned. Of 90 minutes, 30 minutes may be catered for individual Presentation/consultation as per the course outline.
- The students must appear 1 (one) Mid Term examinations in a semester as per given schedule. As a rule, retake of Mid Term Examination is not allowed, except for sickness, hospitalization or other unavoidable circumstances, provided the student has valid supporting documents and he/she has been permitted by the course teacher and the program office before the examination commences. In such cases, 25% of total weight assigned against midterm exam may be deducted.
- The course teachers are expected to ensure conduct of minimum 6 (six) quizzes/weekly tests in a semester for each course.
- An individual term paper will be assigned to the students that will be followed by presentation.
- Minimum two individual and group assignments, case studies etc should be assigned to students will be assigned followed by presentations, as per the course requirements. The presentations must be short. For that miscellaneous periods or 15-30 minutes in each day's class may be utilized for the purpose.
- One analytical team assignment and individual presentation should be included in a course. As per requirement, field trips may be organized.
- Any fraction in the marks obtained is to be rounded up to the advantage of student i.e. any fraction to be rounded up to the next number.
- Attendance in all classes is mandatory. A certain percentage of marks are allotted for class attendance.

## **2.12 Examination and Assessment System**

BUP follows a single examiner system and continuous assessment is done to evaluate a student in a semester. The following rules will apply for all tests and examinations:

- All tests, assignments, term papers, presentations, class performance will be evaluated by the course teacher. He/she will show the scripts, assignments, term papers, etc to the students in the classroom in the following week. However, the scripts of final examination will not be shown to them.
- The course teacher is required to submit all scripts, assignments, etc with a compiled up-to-date result summary for all the tests/performance evaluated prior to semester final examination to the Controller of Examination of BUP.

- The questions for the semester final examination will be set by the course teacher, who will submit the same to the Controller of Examination. More than one teacher can take a single course in different section of a batch. In that case, a combined set of question/s will have to be prepared. The Controller of Examination may moderate the question through Moderation Committee, if necessary.
- The course teacher alone will evaluate the scripts and submit marks obtained to the Controller of Examination.

### **2.13 Supplementary Final Examination**

As a general rule, supplementary examinations of any kind are not allowed. However, if a student fails to appear scheduled semester final examination for extremely unavoidable and valid reasons, he/she may be allowed to appear this examination on case by case basis under the following guidelines:

- He/she must appear the supplementary within four weeks from date on which the particular examination was held.
- Students should apply to Dean FBS (through respective department) within seven days after final examination with required supporting documents describing the reasons for his/her inability to appear scheduled semester final examination. The Dean, if convinced, will forward the same to the office of the Controller of Examination duly recommended for approval and making arrangements to conduct the subject examination.
- Student will have to pay the required fees as per the university policy for appearing supplementary examination and complete other examination formalities for the course(s) so appeared.
- Not more than 'B' grading will be awarded to the students for supplementary examinations. However, special cases may be considered with prior approval of the VC.
- The existing rules of semester final examination will apply to the conduct of supplementary examinations e.g. question setting, moderation, evaluation, and result publication etc.



### 3. Performance Evaluation System

#### 3.1 Distribution of Marks for Evaluation

Letter grades are used to evaluate the performance of a student in a course. The following grading system is currently followed for performance evaluation of the students:

Remarks	Distribution
Final Exam	50%
One Mid-term	20%
Four Class Tests	10%
Term Paper (Individual) including Presentation	(7+3)%
Assignments and Case Studies (Individual/Group) including Presentation	5%
Class attendance	5%
<b>Total:</b>	<b>100%</b>

The BUP authority reserves the right to review/revise the above grading system. However, depending on the nature of course, minor modifications can be made by respective course teacher, provided it is incorporated in the course outline.

#### 3.2 Grading System

Numerical Grade	Letter Grade		Grade Point
80% and above	A+	(A Plus)	4.00
75% to < 80%	A	(A Regular)	3.75
70% to < 75%	A-	(A Minus)	3.50
65% to < 70%	B+	(B Plus)	3.25
60% to < 65%	B	(B Regular)	3.00
55% to < 60%	B-	(B Minus)	2.75
50% to < 55%	C+	(C Plus)	2.50
45% to < 50%	C	(C Regular)	2.25
40% to < 45%	D	-	2.00
< 40%	F	-	0.00
-----	I	-	Incomplete
-----	W	-	Withdrawal/Withdrawn

### 3.3 Calculation of GPA (Grade Point Average) and CGPA (Cumulative Grade Point Average)

Grade Point Average (GPA) is the weighted average of the grade points obtained in all the courses passed/completed by a student. CGPA will be computed after each semester to determine the academic standing of the student in the program. GPA is calculated for specific semester whereas CGPA is calculated considering all past records. GPA and CGPA is calculated using following simple formula:

$$\text{GPA} = \frac{\text{Total Grade Point earned in a particular Semester}}{\text{Number of Courses in that particular Semester}}$$

$$\text{CGPA} = \frac{\text{Total Grade Point so far earned}}{\text{Number of Total Courses Taken}}$$

- When a course is repeated for improvement, better grade shall be counted for calculation of GPA and CGPA
- Performance in all the subjects including all the 'F' grades shall be reflected in the transcript.

### 3.4 Promotion Policy

For getting promotion to the next semester students should maintain their result according to the following table:

Serial	Undergraduate Program	
	Semester	CGPA
1	1 <sup>st</sup> – 2 <sup>nd</sup>	2.00
2	2 <sup>nd</sup> – 3 <sup>rd</sup>	2.00
3	3 <sup>rd</sup> – 4 <sup>th</sup>	2.25
4	4 <sup>th</sup> – 5 <sup>th</sup>	2.25
5	5 <sup>th</sup> – 6 <sup>th</sup>	2.50
6	6 <sup>th</sup> – 7 <sup>th</sup>	2.50
7	7 <sup>th</sup> – 8 <sup>th</sup>	2.50

### 3.5 Incomplete Grades

A student will be assigned '**Incomplete**' grade for incomplete course work, provided he/she is permitted by Department Academic Committee. This will be recorded as 'I' with an alternative grade based on the work completed at that point in time. The alternative grade will come into effect if the student fails to complete the course requirement within 2 weeks from the publication of the provisional results in a semester.

### 3.6 Retaking/Improvement of Grade(s)

Improvement of grade(s) will be guided by the following rules:

- A student earning an **'F'** grade in any course shall be required to improve the grade by retaking the course offered in the subsequent semester(s), since achieving a passing grade in all courses individually is a degree requirement.
- A student earning a **'Below B grade'** may chose to improve the grade by repeating a course, when offered in the subsequent semester(s). The following rules will apply for in this regard:
  - In order to repeat a course, the student must apply to the Dean of the Faculty at least 4 (four) weeks through respective departments before the commencement of a semester. A student desiring to repeat a course in final semester shall have to apply to the Dean through respective department to withhold his/her graduation too.
  - The grade earned on the repeated course will be shown in the transcript by **'R'** symbol meaning **'Repeat'**. The grade earned on such course(s) would be used for computing the final CGPA.
- If any student gets grade **'less than 'B'** she/he can give improvement exam with the next batch but in that ease previous result of that course will not be considered. Improvement exam result will be the final one for that particular course. Such scope for a specific course will be given once for a specific course.
- He/she will be allowed to repeat/retake/improve a course only once with the next batch when offered.
- Failing in a course twice will warrant a student to be permanently withdrawn from the program/university.
- Repeating a course is not allowed after the graduation.

### 3.7 Rules for Withdrawal and Dismissal

### 3.8 The rules on withdrawal

- **Withdrawal on Poor Performances:** Students may be withdrawn from the program because of their poor performance. A student is advised to always maintain a minimum CGPA of 2.50 in a 4.00 point rating scale in the program. However, a student may be promoted to next semester or year as per promotion policy as indicated in earlier paragraph. Any student having a CGPA less than 2.00 will be withdrawn from the program. Any student failing to maintain corresponding CGPA mentioned in promotion policy will be relegated to the next batch. Such relegation for more than once will warrant permanent withdrawal of the student from the program.

- **Temporary Withdrawal:** The term Temporary Withdrawal means that the student has been allowed by the Academic Council, BUP to discontinue temporarily. The student, so withdrawn, may re-enter the course as per terms and conditions set by the authority.
- **Permanent Withdrawal:** The term 'permanent withdrawal' means a permanent, voluntary discontinuity from the program. The implication of permanent withdrawal includes cancellation of admission and expiry of registration. Once a student is permanently withdrawn, he/she will require a readmission and fresh registration to re-enter in the program.

#### **4. Students' Grievance Procedure**

The Controller of Examination reserves the right to arrange re-scrutiny of a student's script or re-evaluation of grading, if a student submits a grievance application to Controller of Examination within one week of publication of provisional results.

## **PART-TWO**

### **DEPARTMENT OF DISASTER AND HUMAN SECURITY MANAGEMENT**

#### **1. Introduction - Faculty of Arts and Social Sciences**

The Faculty of Arts & Social Science (FASS) under BUP started its journey from 2009 with the motto of achieving 'Excellence through Knowledge'. This faculty will expand gradually its educational programmers on all subjects of social science. At the moment 05 in house departments are functioning. In addition, the faculty is responsible to support the undergraduate program of BMA, BNA and BAFA.

**To achieve the desired level of excellence, the FBS emphasizes on the followings:**

A meticulous admission and selection process for best possible screening.

- Interactive sessions in the classroom and uninterrupted curriculum.
- Effective teaching through innovative methods blended with latest trends and developments in the world and with its state of the art facilities.
- Competent internal faculties with flexibility to outsourcing expert resource persons.
- Regular guest lectures and visits to organizations.
- Well thought-out and continuous feedback and assessment system.
- A culture of discipline, punctuality and commitment.
- Emphasis on Code of Conduct and Dress Code.
- Focus to develop students as a good human being with all possible attributes of a successful leader in own field.
- A tranquil, external turbulence free secured campus life.

#### **2. Departments under the Faculty of Arts and Social Sciences (FASS)**

There are **five (05)** departments under Faculty of Arts and Social Sciences:

- Department of Disaster and Human Security Management (DHSM)
- Department of Development Studies (DS)
- Department of Economics
- Department of English
- Department of Public Administration (PA)

#### **3. Dean**

Brigadier General Ridwan-Al-Mahmood, ndc, afwc, psc  
Dean  
Faculty of Arts and Social Sciences

#### **4. Mailing Address**

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## 5. Department of Disaster and Human Security Management

We are now in a brief hinge of history when the human society is struggling to enter in a sustainable equilibrium. Unfortunately due to the frequent hit of natural disasters and catastrophe this equilibrium is lagging behind, where anthropogenic disasters adding fuel in fire. Situation for the developing countries like Bangladesh, who are inherently disaster prone due to the geological and geographical position, the vision of sustainability is turning into mere day dream. In such circumstance, holism and interconnectedness of science and management should come into signify the guiding principles to develop trained personnel with strong need-based academic knowledge, skills and competencies who can understand and manage such meteorological dynamism and disastrous situation to lead the nation towards the summit of Sustainable Development.

In order to prepare human resource in the field of Disaster Management and serve the nation of 150 millions, as well as to fulfill the growing interest and demand from a wide geographic area including overseas, Faculty of Disaster Management introduced a complete nine (09) semesters B. Sc. in Disaster Management (honors) program (with internship) in Bangladesh.

### 5.1 Objective

- Produce trained and skilled personnel and professionals of Disaster Management.
- Developing Leadership in the field of Disaster Management.
- Create a centre of excellence for research and capacity building in the field of climate change and disaster management.

## 6. Semester wise Distribution of Courses

<b>1<sup>st</sup> Semester</b>			
<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Remarks</u></b>
<u>DHSM-1101</u>	<u>Fundamentals of Disaster &amp; Human Security Management</u>	<u>3</u>	
<u>DHSM-1103</u>	<u>Presentation Skill Development</u>	<u>3</u>	
<u>DHSM-1105</u>	<u>Fundamentals of Social Sciences</u>	<u>3</u>	
<u>DHSM-1107</u>	<u>Fundamentals of Economics</u>	<u>3</u>	
<u>DHSM-1109</u>	<u>Functional English</u>	<u>3</u>	
<u>DHSM-1110</u>	<u>Field Trip</u>	<u>1</u>	
<b><u>Total</u></b>		<b><u>16</u></b>	

<b>2<sup>nd</sup> Semester</b>			
<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Remarks</u></b>
<u>DHSM-1201</u>	<u>Principles of Disaster Management</u>	<u>3</u>	
<u>DHSM-1203</u>	<u>Geography &amp; Environmental Settings of Bangladesh</u>	<u>3</u>	
<u>DHSM-1205</u>	<u>Bangladesh Studies</u>	<u>3</u>	
<u>DHSM-1207</u>	<u>Response, Recovery and Rehabilitation</u>	<u>3</u>	
<u>DHSM-1209</u>	<u>Fundamental of Earth Sciences</u>	<u>3</u>	
<b><u>Total</u></b>		<b><u>15</u></b>	

<b>3<sup>rd</sup> Semester</b>			
<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Remarks</u></b>
DHSM-2101	<u>Introduction to Natural Resources and Sustainable Development</u>	<u>3</u>	
DHSM-2103	<u>Basics of Climatology</u>	<u>3</u>	
DHSM-2105	<u>Principles of Emergency Management</u>	<u>3</u>	
DHSM-2107	<u>Built Environment &amp; Urban Disaster</u>	<u>3</u>	
DHSM-2109	<u>Introduction to Hydrology &amp; Water Resources Management</u>	<u>3</u>	
DHSM-2108	<u>Field Trip</u>	<u>1</u>	
<b><u>Total</u></b>		<b><u>16</u></b>	

<b>4<sup>th</sup> Semester</b>			
<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Remarks</u></b>
DHSM-2201	<u>Disaster Preparedness and Vulnerability Reduction</u>	<u>3</u>	
DHSM-2203	<u>3<sup>rd</sup> Language</u>	<u>3</u>	
DHSM-2205	<u>Early Warning, Forecasting and Management</u>	<u>3</u>	
DHSM-2207	<u>Informatics for Disaster Management</u>	<u>3</u>	
DHSM-2209	<u>Flood plain &amp; Watershed Management</u>	<u>3</u>	
DHSM-2208	<u>Environmental Pollution</u>	<u>1.5</u>	
<b><u>Total</u></b>		<b><u>16.5</u></b>	

<b>5<sup>th</sup> Semester</b>			
<b><u>Course Code</u></b>	<b><u>Course Title</u></b>	<b><u>Credit Hours</u></b>	<b><u>Remarks</u></b>
DHSM-3101	<u>Fire science and fire dynamics</u>	<u>3</u>	
DHSM-3103	<u>Research Methodology in Disaster Management</u>	<u>3</u>	
DHSM-3105	<u>Climatic Hazard and Climate Change</u>	<u>3</u>	
DHSM-3107	<u>Community-based Disaster Management and Planning</u>	<u>3</u>	
DHSM-3109	<u>Mass Communication in disaster management</u>	<u>3</u>	
DHSM-3110	<u>Damage, Need and Loss Assessment</u>	<u>1.5</u>	
<b><u>Total</u></b>		<b><u>16.5</u></b>	

<b>6<sup>th</sup> Semester</b>			
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<u>Course Code</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Remarks</u>
<u>DHSM-3201</u>	<u>GIS &amp; Remote Sensing in Disaster &amp; Human Security Management</u>	<u>3</u>	
<u>DHSM-3203</u>	<u>Disaster &amp; Population Displacement</u>	<u>3</u>	
<u>DHSM-3205</u>	<u>Tools &amp; Techniques of Disaster Management</u>	<u>3</u>	
<u>DHSM-3207</u>	<u>Disaster Risk Reduction Principles and Practices</u>	<u>3</u>	
<u>DHSM-3209</u>	<u>Disaster in Agriculture and Food Security</u>	<u>3</u>	
<b><u>DHSM-3210</u></b>	<b><u>Field Trip</u></b>	<b><u>1</u></b>	
<b><u>Total</u></b>		<b><u>16</u></b>	

<u>7<sup>th</sup> Semester</u>			
<u>Course Code</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Remarks</u>
<u>DHSM-4101</u>	<u>Ethics and Organizational Behavior</u>	<u>3</u>	
<u>DHSM-4103</u>	<u>Mainstreaming Disaster Management</u>	<u>3</u>	
<u>DHSM-4105</u>	<u>Hazardous Material: Planning and Management</u>	<u>3</u>	
<u>DHSM-4107</u>	<u>Emergency &amp; Crisis Management</u>	<u>3</u>	
<u>DHSM-4109</u>	<u>Fundamentals of Human Security Management</u>	<u>3</u>	
<u>DHSM-4102</u>	<u>Laboratory work on GIS &amp; Remote Sensing</u>	<b><u>1.5</u></b>	
<b><u>Total</u></b>		<b><u>16.5</u></b>	

<u>8<sup>th</sup> Semester</u>			
<u>Course Code</u>	<u>Course Title</u>	<u>Credit Hours</u>	<u>Remarks</u>
<u>DHSM-4201</u>	<u>National &amp; International Regulations of Disaster Management &amp; Human Security</u>	<u>3</u>	
<u>DHSM-4203</u>	<u>Public health and principles of Epidemiology</u>	<u>3</u>	
<u>DHSM-4205</u>	<u>Logistics, Governance &amp; Risk Financing</u>	<u>3</u>	
<u>DHSM-4207</u>	<u>Psychological Intervention: Managing stress, Trauma and Loss</u>	<u>3</u>	
<u>DHSM-4209</u>	<u>Seismology and Geodesy</u>	<u>3</u>	
<b><u>DHSM-4106</u></b>	<b><u>Research Paper and Viva</u></b>	<b><u>3</u></b>	
<b><u>Total</u></b>		<b><u>18</u></b>	

**Total Credit: 130.5**



## **7. Course Descriptions**

### **DHSM-1101: Introduction to Disaster & Human Security Management**

This course is designed as a broad introduction to Disaster & Human Security Management. Disaster & Human Security Management differs from many other areas in academia in that it has a strong practical component. This course will introduce students to both the theoretical and practical sides of Disaster & Human Security Management. The topics like Natural and manmade disaster, their impacts, management and laws-regulations related to disaster management etc. will be covered in this course. Upon completion of the course, students will have a general understanding of the basic concepts of disaster and human security management.

### **DHSM 1103: Presentation Skill Development**

Presentations skills and public speaking skills are very useful in many aspects of work and life. These courses have been initiated to develop confidence and capability to deliver good presentations, and to stand up in front of an audience and speak well for self-development and social situations. Presentation skills and public speaking abilities are not limited to certain special people - anyone can give a good presentation, or perform public speaking to a professional and impressive standard. The formats and purposes of presentations can be very different, for example: oral (spoken), multimedia (using various media - visuals, audio, etc.), Power Point presentations, short impromptu presentations, long planned presentations, educational or training sessions, lectures and simply giving a talk on a subject to a group on a voluntary basis.

### **DHSM 1105: Fundamentals of Sociology**

This course involves both an explanation and active practice of using the sociological perspective to examine the world around us. It introduces sociology as a discipline and sociological ways of understanding human social interaction and processes such as socialization, deviance, culture/society, and social change. This course will teach the use of sociology in class via small-group exercises and the use of computers to explore questions about the social world.

### **DHSM 1107: Fundamentals of Economics**

This course introduces students to fundamental economic concepts and theories including demand, supply, and the formation of equilibrium prices in product and resource markets. In addition, the course offers an introduction to applied fields such as industrial organization (market structure), labor economics, unionism, international trade and public economics.

### **DHSM 1109: Functional English**

Functional English is very crucial now in the competitive mode of business era. And this is very important for the business students. Communication will lead the students to the destination with the help of Functional English. To this end, the course has been designed.

### **DHSM 1100: Field Trip**

The prime objectives of field visit is to provide students different ways of viewing the world, communicating with it, and successfully introducing new questions, issues of daily life and finding answers for them to generate knowledge. In the end, inquiry based learning is basically teaching the students to have a greater understanding of the world they work, communicate,

learn, and live in. In order to acquire useful application of the inquiry based learning approach where data and information are converted into useful knowledge this course has been designed.

### **DHSM 1201: Principles of Disaster Management**

This course will focus on the policies, programs, administrative actions and operations undertaken to address a natural or man-made disaster through preparedness, mitigation, response and recovery. In addition in order to reduces or avoids morbidity, mortality, and economic and physical damages from a hazard disaster management principles should be introduced in the respective classes.

### **DHSM 1203: Geography & Environment settings of Bangladesh**

This course has been initiated to study on the processes and features that make up Earth, including human activities where they interface with the environment. In fact, physical geographers are concerned with nearly all aspects of Earth and can be considered generalists because they are trained to view a natural environment in its entirety, and how it functions as a unit. The study of the nature, development, and modification of landforms is a specialty called geomorphology, a major subfield of physical geography. This course will help to understand and explaining variation in landforms, the processes that produce physical landscapes, and the nature and geometry of Earth's surface features.

### **DHSM 1205: Bangladesh Studies**

This course will present a rigorous empirical study of various aspects of poverty and vulnerability in Bangladesh. The themes include the trend and structure of poverty, inequality, asset accumulation, labor market, crisis and vulnerability of life, the role of social security in the economy, and the role of microcredit. On the other hand this course will claim a number of distinctive features.

### **DHSM 1207: 3<sup>rd</sup> Language**

This course is outlined for the learners to learn about personal satisfaction, family communication, and social needs in respect of the country. Learners vary on a number of individual factors that have to do with personality, motivation, learning style, learning strategies, aptitude and age. After orientation with this course they will learn about these things.

### **DHSM 1209: Fundamentals of Earth Sciences**

This course will help the students to learn how the earth works as a system and how humans interact with Earth. Understanding the causes and potential societal consequences of natural Earth processes (e.g., earthquakes, floods, landslides, tsunamis, volcanic eruptions, weather, and global climate change) and the production, availability, and potential depletion of natural resources (e.g., water, soil, mineral, and energy) are of particular importance because they impact our economy, our security, and the safety and sustainability of our environment. The context for understanding modern Earth processes lies in deciphering records of Earth's past. Investigating these records, as well as human interaction with modern Earth processes and resources, is therefore critical to the wellbeing of humanity and the planet. Empowering students with scientific knowledge and skills to make informed decisions as citizens of our common home is a vital undertaking and a key responsibility for science educators and geoscientists.

### **DHSM 2101: Introduction to Natural Resources and Sustainable Development**

Short history of oil, gas, and mining, Challenges and opportunities of oil, gas and mining. The decision chain of Natural Resource Management. Fundamentals of oil, gas, and mining: From oil well to car - Market, players, and extraction process in oil, From mine to mobile phone - Market, players, and extraction process in mining, Identification of Natural Gas fields and distribution. Evolving Technology in Natural Resource extraction. Natural resources and the broader governance framework, Effect of Natural Resources on Government behavior, Transparency and Accountability. International governance initiatives regarding Natural Resources. Environmental challenges and trends: Oil, gas and Mining. Anticipating and managing environmental issues: Managing environmental challenges, Extractives and climate change. Investing in sustainable development: Introduction to economic linkages, Local employment and procurement, Enabling technology transfer, Integrated spatial planning. Aligning extractive industries with the SDGs.

### **DHSM 2103: Basics of Climatology**

This modern field of study is regarded as a branch of the atmospheric sciences and a subfield of physical geography, which is one of the Earth sciences. Climatology now includes aspects of oceanography and biogeochemistry. Basic knowledge of climate can be used within shorter term weather forecasting using analog techniques such as the El Niño – Southern Oscillation (ENSO), the Madden-Julian Oscillation (MJO), the North Atlantic Oscillation (NAO), the Northern Annular Mode (NAM) which is also known as the Arctic oscillation (AO), the Northern Pacific (NP) Index, the Pacific Decadal Oscillation (PDO), and the Interdecadal Pacific Oscillation (IPO). Climate models are used for a variety of purposes from study of the dynamics of the weather and climate system to projections of future climate. This course will help the learners a lot.

### **DHSM 2105: Principles of Emergency Management**

This course will provide important information on planning for emergencies, and highlights programs, plans, resources and supports that are available to assist in disaster management. This course will also provide important information on what you as an individual can do to help keep you and your family prepared and safe.

### **DHSM-2107 Built Environment & Urban Disaster**

Built Environment: Introduction and its components. Structural forms and systems for buildings, bridges, communication and transmission structures. Types of construction materials - steel, reinforced and prestressed concrete etc; Physical and chemical properties of built materials. Loads on structures; types of foundation, concept of bearing capacity, settlement. Impact of Built Environment on Health, sustainable design, towards environment friendly built environment. Concept on building code, general building requirements, control and regulations; structural design; construction practice and safety; building services; Alteration, Addition and Change of Existing Building Codes.

### **DHSM 2109: Introduction to Hydrology and Water Resources Management**

This course will assess the understanding of the implications of climate change for the hydrological cycle, water resources, and their management. Since the beginnings of concern over the possible consequences of global warming, it has been widely recognized that changes in the cycling of water between land, sea, and air could have very significant impacts across many sectors of the economy, society, and the environment. The characteristics of many terrestrial ecosystems are heavily influenced by water availability and, in the case of in stream ecosystems and wetlands, by the quantity and quality of water in rivers and aquifers.

### **DHSM 2108: Field Trip**

The prime objectives of field visit is to provide students different ways of viewing the world, communicating with it, and successfully introducing new questions, issues of daily life and finding answers for them to generate knowledge. In the end, inquiry based learning is basically teaching the students to have a greater understanding of the world they work, communicate, learn, and live in. In order to acquire useful application of the inquiry based learning approach where data and information are converted into useful knowledge this course has been designed.

### **DHSM 2201: Disaster Preparedness and Vulnerability Reduction**

Major emergencies, disasters and other crises are no respecters of national borders and never occur at convenient times. The magnitude of human suffering caused by these events is huge, and many aspects of people's lives are affected – health, security, housing, access to food, water and other life commodities, to name just a few. That is why it is vital to have emergency plans in place, so that the effects of disasters on people and their assets can be mitigated, and coordinated response may be launched as effectively and efficiently as possible when disasters or other crises strike. In this context this course has been introduced.

### **DHSM 2203: Built Environment & Disaster**

This course is intended to demonstrate the value of using built environment professionals more widely in disaster risk reduction and response and giving early attention to engaging the right expertise to address the problems of building, infrastructure and land. It shows how relevant professional skills and expertise can be applied at all stages of disaster management. It highlights that their contribution is especially important to achieving the longer-term goal of sustainable recovery and development. However, it is also relevant to all international development agencies; to governments, at national, sub national and local levels and the affected people who, together, contribute the vast majority of funds and resources; and to non-governmental organizations involved in one or other aspect of disaster management.

### **DHSM 2205: Early Warning, Forecasting and Management**

This course will help the learners to observation, detect, and monitor, analysis, forecasting and development of hazard warning messages. Assessing potential risks and integrating risk information into warning messages and dissemination of timely, reliable and understandable warning messages to authorities and public at-risk. Community-based emergency planning, preparedness and training programmes focused on eliciting an effective response to warnings to reduce potential impact on lives and livelihoods.

### **DHSM 2207: Informatics for Disaster Management**

Informatics for Disaster Management course will provide some informatics issues relevant for disaster management such as standards to permit collection of data from diverse sources, coordination of disparate information systems across jurisdictional boundaries, and among system owners, design and deployment of appropriate databases, accurate information for clinicians and public, tracking systems for response personnel, disaster victims, and other resources, timely mobilization. However, specific solutions are needed within the context of disaster management.

### **DHSM-2208: Environmental Pollution Practical**

By this course the learners will gain understanding of the fundamental scientific aspects of environmental pollution with an emphasis on sources, pathways and receptors and technical approaches to controlling exposure. In addition they will be able to understand the environmental and technological issues in the management and control of air, soil and water pollution as well as practical methods for the investigation of air, soil and water quality. The course places a lot of emphasis on individual student development but also involves team-working and presentations to develop your interpersonal skills.

### **DHSM-2209 Floodplain and Watershed Management**

Resources, functions and ecology of river-floodplain system; Flood flow and low flow analysis; Flood damage mitigation: structural and non-structural measures; Waterways; In-stream flow requirement; River pollution; River and floodplain restoration; Land and water use conflicts, Situation assessment, issues, identification, resources and values, goals, strategies, tools, attitudes, statistical data; floodplain management as part of water resources management; course requirements and conduct. Historical perspective; types of floods and floodplains; comparison and contrast of floods and storm water drainage. Defining floodplain boundaries; Risk assessment: hydrologic computational techniques. Risk assessment: delineation of hazard areas; nature of hazards; floodways, Utilizing information from flood hazard studies; discussion of floodplain management plan, Flood damage reduction strategies and tools. Natural functions and resources of floodplains and their value, Strategies and tools to preserve and/or restore natural and beneficial floodplain resources. Legal and ethical issue, River corridor and watershed management; presentation of outline of team floodplain management plan. Floodplain management regulations, Flood warning and forecasting, Developing and implementing a local floodplain management program; community floodplain management plan

### **DHSM-3101 Fire Science and Fire Dynamics**

Scientific basic knowledge of Fire and Combustion: Fire Science and Combustion, Basic fire chemistry, flames and explosions. Heat Transfer, Limits of Flammability and Premixed Flames, Diffusion Flames and Control volume models, conduction and radiation, Fire Plumes, Convective heat transfer. Ignition and burning, Ceiling jet, structural interactions, back draft, Smoke, Tunnel fires, Combustion of solid and liquid fuels: Steady burning of liquids and solids, Ignition he Initiation of Flaming Combustion, Flame. Spread, Spontaneous ignition within olids and smouldering combustion. Fire Dynamics: The Pre-Flashover Compartment Fire, The Post-Flashover, Compartment fires & flashover

The production and movement of smoke: The production and movement of smoke.

### **DHSM-3103: Research Methodology in Disaster Management -I**

Participatory action research (PAR) methodology is an effective tool in identifying and implementing risk-reduction interventions. It has been used extensively in occupational health research, but not, to our knowledge, in disaster research. A PAR framework has been developed to set recommendations to facilitate evacuation from high-rise office buildings and reduce risk of injury among evacuees.

### **DHSM-3105: Climatic Hazard and Climate Change**

The aim of this course is to advance a social science of hazards and health, geared to enhancing understanding of how people and institutions in developing countries respond to the health risks posed by extreme climatic events. Weather extremes leading to hazard events such as floods, windstorms and drought affect much of the globe, and in many regions their intensity has been predicted to increase as a result of climate change. When such hazards strike, threats to human health are commonly among the most immediate and urgent concerns, especially in many low-income countries where individual and collective poverty may exacerbate human vulnerability (both exposure and susceptibility) to health impacts through a complex set of epidemiological and behavioral pathways.

### **DHSM-3107: Community-based Disaster Management and Planning**

At the end of this course the learners will learn about the necessity of community connections to develop, implement and maintain an effective end-to-end early warning system. A multi-hazard warning center can only be successful if the warnings it produces reach individuals at risk and are easy to understand, resulting in appropriate responses. More effective prevention strategies would save not only tens of billions of dollars, but save tens of thousands of lives.

### **DHSM-3109: Mass Communication in disaster management**

This course aims to provide with information about the effects of an event, and how actions may affect the outcome of the event to the learners. Crisis and Emergency Risk Communication (CERC) is the use of risk communication in emergencies to inform the public about an event or issue to empower members of a community to protect themselves. Potential channels of communication include face-to face conversations, telephone calls, group meetings, mass media such as television, tailored mass media services and interactive social media such as Twitter. The effectiveness of risk communication interventions could be evaluated by assessing many possible outcomes.

### **DHSM-3201: GIS & Remote Sensing in Disaster & Human Security Management**

Introduction to GIS, Development of GIS, Scope. Data and Information Data and Information, Distinguishing Properties of Geographic Data, Spatial Data Model (Vector and Raster data), Attribute Data, Measurement scales. Map Projection and Coordinate System. Geographic Coordinate System, Vertical Coordinate System, Projected Coordinate System. Digitizing (Manual Digitizing, Raster Scanning). Mapping and Visualization. GIS Modeling Techniques: Boolean Logic Models, Index Overlay Models, Fuzzy Logic Methods. Application of GIS in Disaster Management. Database Management: Introduction, fundamental of characteristics of DBMS, DBMS software

components, Database design, Types of DBMS structure, Spatial Query languages, Objective oriented DBMS: the future for GIS database management.

### **DHSM-3203: Disaster & Population Displacement**

A region's vulnerability to natural disasters depends on multiple factors. The United Nations University calculates the World Risk Index using four factors: exposure, susceptibility, coping capacities, and adaptive capacities. Adaptive capacity is the capacity to make structural changes to reduce the impact of natural disasters in the future. When natural disasters strike, people are forced move. Both rich and poor countries are affected by extreme weather, but the former will cope better, it notes.

### **DHSM-3205: Tools & Techniques of Disaster Management**

The Disaster Management Tool is a software system supporting decision makers, surveillance and intervention teams during disaster response. These actors can access basic data about building stock, residents and resources as well as dynamic data like seismic measurements, damage estimations and damage observations. The DMT can be used for risk assessment using the damage estimation tool with expected seismic input as well as for the task of preparedness using the damage estimations for disaster response training and to pre-assess the needed resources.

### **DHSM-3207: Disaster Risk Reduction Principles and Practices**

This course will provide essential introductory information, principles of effective practice, guidelines for action in a range of sectors and settings, case studies and links to useful tools and resources, for the application of an integrated, rights-based approach to disaster risk reduction and climate change adaptation. The course is also a useful resource for other stakeholders, including staff from local, district and national government offices, the United Nations, donors, as well as social and natural scientists.

### **DHSM-3209: Disaster in Agricultural & Food Security**

Drought, floods, insect infestations, and other natural disasters can destroy crops and kill livestock, while conflict often prevents farmers from planting and harvesting crops and tending to animals, impacting the food security and livelihoods of affected populations. It may now be high time to provide concrete assistance to this sector, in particular the provision of defensive investments and rehabilitation expenditures to cope with these natural disasters.

### **DHSM-4101 Ethics and Organizational Behavior**

Guidelines for policy makers. Displaced Populations, Refugees and local hosts, Addressing the needs of women. The nature of the working environment in contemporary emergencies, Ethical dilemmas and humanitarian relief, Strategies for the negotiation of rights. Funding sources for disaster relief, An ethical litmus test for disaster relief, Some goals and priorities for disaster response. Some ethical issues and exploration of responses. The role of business professionals in promoting social justice and the empowerment of marginalized groups in society. Ethical leadership behavior and incorporating ethical leadership into business, Unethical leadership behavior and

the consequences. Issues and debates associated with the concept of corporate social responsibility and their impact in Bangladesh perspective.

### **DHSM-4103: Mainstreaming Disaster Management**

Mainstreaming risk reduction into the development process is one of the Prevention Consortium's priority initiatives. In close collaboration with international financial institution partners and bilateral donors, Prevention aims to address natural hazard risk within the development context and to ensure that development policies, projects and programs, particularly in high-risk countries, do not unwittingly create new forms of vulnerability. Moreover, there has been little investigation and analysis of the key challenges around mainstreaming or of mechanisms, opportunities and incentives for progress.

### **DHSM-4105 Hazardous Material: Planning and Management**

Defining the system, ICS Origin, Terminology: Organizational positions, Resource elements, Facilities, Integrated communications, Comprehensive resource management. Management Concepts and System Characteristics: *Effective Span-of-Control, "Modular" Organization, Concepts-Agency Autonomy, Management by Objectives (MBO), Unit Integrity, Functional Clarity*, ICS Design Criteria. Overview of the system: Command, Operations, Planning, Logistics, Finance. The Incident Action Planning Process, Management-by-Objectives Framework. Decision Support Systems for Disaster Management. Unified Command: What is Unified Command? Why Unify Command? ICS Characteristics Pertinent to Unified Command, Unified Command Configuration. Challenges of Incident Management: Situational Awareness, Communications, Resources. Managing Medical Resources, Integrating Volunteer Efforts

### **DHSM-4107: Emergency & Crisis Management**

Emergency and disaster management is set to become a fully-fledged profession. It requires practitioners to coordinate complex operations that involve many different kinds of expert and widely diverse problems that must be solved rapidly and efficiently. This module will cover the procedures, techniques, equipment and forms of organization used in managing disasters, crisis situations and major incidents. It will address leadership and problem-solving skills and enable students to gain familiarity with the environments, protocols and relationships involved in modern emergency management.

### **DHSM-4109: Human Security in Bangladesh**

Despite rapid growth and progress towards some MDGs, human security in Bangladesh is widely perceived to be poor. This study developed a methodology for human security assessment based on a dual track approach: developing scores for six categories of human security and cross-checking with changes in drivers of insecurity identified through an independent analysis of each category of insecurity.

### **DHSM-4102 Laboratory work on GIS & Remote Sensing**

Content will be provided based on course DHSM-3201:GIS & Remote Sensing in Disaster & Human Security Management.



### **DHSM-4201: National & International Regulations of Disaster Management & Human Security**

Disaster management would involve the management of both risks and consequences of disasters that would include prevention emergency response and post-disaster recovery. Community involvement for preparedness programs for protecting lives and properties would be a major focus. Involvement of local government bodies would be an essential part of the strategy. Self-reliance should be the key for preparedness, response and recovery.

### **DHSM-4203 Public Health and Principles of Epidemiology**

Disasters and other emergencies often result in significant impacts on people's health, including the loss of many lives. Every new threat reveals the challenges for managing health risks and effects of emergencies and disasters. Deaths, injuries, diseases, disabilities, psychosocial problems and other health impacts can be avoided or reduced by disaster risk management measures involving health and other sectors. The traditional focus of the health sector has been on the response to emergencies. The ongoing challenge is to broaden the focus of disaster risk management for health from that of response and recovery to a more proactive approach which emphasizes prevention and mitigation, and the development of community and country capacities to provide timely and effective response and recovery.

### **DHSM-4205: Logistics, Governance & Risk Financing**

The central vision of this course is to take forward the principles of sustainable enterprise which form a core of strategy to synthesize knowledge generation, knowledge transfer, social science underpinning, practice and skills development through interdisciplinary research both within the social sciences and beyond, and apply them in the areas of logistics, economics and finance.

### **DHSM-4207 Psychological Intervention: Managing Stress, Trauma and Loss**

Disability issues. Post-trauma symptomatology; People in crisis – An overview of the cognitive, affective, behavioral and neurological sequelae associated with trauma, Hierarchy of elements in crisis, Strategies for integration of crisis, Individual responses to crisis, Neuropsychology of trauma, Organization of the Central Nervous System, Categories of memory, HPA Axis normal, HPA Axis trauma, Integrative model, Problem-solving model; Brain systems, Effects of extreme stress, Lobes of Cortex and Neo Cortex, Neurons, Normal cognitive process, Processing of traumatic stimuli. Current treatment of PTSD; Post Trauma Growth; PTSD; Current treatment modalities for trauma victims. Multicultural concerns in crisis intervention; Crisis Intervention: Models for intervention, Basic ID model, Multimodal dimensions, NOVA Crisis Response Model, Stages of impact model, Dixon model, FIRST model, SAFE-R model, SAFE-R model in chart, Green's Crisis Intervention Model. The role of spirituality/religion in adaptation to trauma. Bereavement – normal vs. complicated. Caregiver fatigue. Trends in victimology; Victimization and violence – sexual assault, partner violence and hostage taking, Crisis in the school setting: The person and society. Survivor/victim issues associated with one of the following categories: homicide, domestic battery, relationship violence including stalking, sexual assault as adult or child, hate crimes. Emergency medical and public safety intervention models; Crisis from disaster: typology and

intervention modalities; The function and types of individual, group and community interventions. Disaster response (agencies and models). Assessment of trauma history and impact of events. Intervention and treatment outcome studies; Self-injurious behavior, typology, assessment, and intervention. Impact of trauma on early childhood. Post-trauma growth. Legal and ethical aspects of crisis intervention.

### **DHSM-4209 Seismology and Geodesy**

Seismicity and Earthquake; Brief History of Seismology; Historical & Instrumental Seismicity; Seismic Waves. Wave Propagation: waves in unbounded area, waves in a semi-infinite body, waves in layered body, attenuation of stress wave. Seismographs; Earthquake Magnitude and Intensity. Focal Mechanism; Geology of the Earthquake-source Region: Geologic and Geomorphic Evidence of Faulting; Determination of Active Faults; Seismic velocity Structure of Continental Lithosphere; Seismic Structure of the Oceanic Crust and Passive Continental Margins. Rock Failure and Earthquakes; State of Stress within the Earth; State of Stress in Earth's Lithosphere; Implication of crustal strain during conventional, slow and silent Earthquakes; Estimating Earthquake source parameters from Geodetic Measurements; Electromagnetic Fields generated by Earthquakes; Earthquake-related Hydrological and Geochemical Changes. Earthquake Prediction; Paleoseismicity; Seismicity In and Around Bangladesh. Earthquake Vulnerability: qualitative measures of vulnerability and quantitative measures of vulnerability; vulnerability of different classes of building, vulnerability of contents of buildings, damage models as functions of ground motion measures, microzoning effects on vulnerability functions, upper and lower bounds on vulnerability, earthquake risk reduction potential, human vulnerability to casualties, inter-earthquake effects. Seismic Response of Soils and Structure. The design and construction process- choice of form and materials, seismic design of foundations and soil-retaining structures, design and detailing of new structures for earthquake ground shaking, earthquake resistance of services, equipment and plant, Architectural detailing for earthquake resistance, Retrofitting. Earthquake Risk Modeling and Management: earthquake risk modeling, material damages cost; damage costs due to ground shaking using empirical damage ratios, damage costs due to earthquake induced fire, damage cost estimation using structural response parameters, estimating casualties, business interruption, reduction of business interruption, Planning for Earthquakes, earthquake insurance, earthquake risk management in developing countries, impediments to earthquake risk reduction. Seismic Hazard Assessment: crustal strain and moment release, Regional seism tectonics, Faulting, earthquake distribution in space, size and time, the nature and attenuation of ground motions, design earthquake, faults-hazard and design considerations, probabilistic and deterministic seismic hazard assessment. Seismic Hazard Analysis, Seismic Slope Stability Analysis, Liquefaction Susceptibility analysis. Geodesy: Basic Concepts of Geodesy, Scope of Geodesy, GPS, DGPS, Baseline Process. Earthquake Instrumentation and Earthquake Monitoring.

### **DHSM-4206 Research Paper and Viva**

Thesis/Research/Project work