Academic Ordinance for the Award of

# **Evening Master of Engineering and Master of Science in Engineering Degree,**

Faculty of Engineering, University of Rajshahi.

AC Meeting: 238, Agenda No: 66, Date: 24 August, 2015 Syndicate Meeting: 461, Agenda No. 03, 29 August 2015 and AC Meeting: 239 Agenda No: 20, Date: 19 December, 2015 Syndicate Meeting: 463, Agenda No. 02, 26 December, 2015



Faculty of Engineering University of Rajshahi

RR.

Tel: +880-721-711125 Fax: +880-721-711131 URL: http://www.ru.ac.bd/engfaculty/engg/



## Faculty of Engineering University of Rajshahi

Academic Ordinance for the Award of Evening Master of Engineering Degree

## **1. Degree Awarding Departments**

The Faculty consists of the following Degree Awarding Departments:

- 1.1.1 Department of Applied Physics and Electronic Engineering (abbreviated as APEE)
- 1.1.2 Department of Applied Chemistry and Chemical Engineering (abbreviated as ACCE)
- 1.1.3 Department of Computer Science and Engineering (abbreviated as CSE)
- 1.1.4 Department of Information and Communication Engineering (abbreviated as ICE)
- 1.1.5 Department of Materials Science and Engineering (abbreviated as MSE)

#### 2. Name of Degrees

The Postgraduate degrees to be offered under this ordinance are:

## 2.1 Evening Master of Engineering in

- 2.1.1 Applied Physics and Electronic Engineering abbreviated as E.M. Engg. (APEE)
- 2.1.2 Applied Chemistry and Chemical Engineering abbreviated as E.M. Engg. (ACCE)
- 2.1.3 Computer Science and Engineering abbreviated as E.M. Engg. (CSE)
- 2.1.4 Information and Communication Engineering abbreviated as E.M. Engg. (ICE)
- 2.1.5 Materials Science and Engineering abbreviated as E.M. Engg. (MSE)

## **3. Duration of Course and Course Structure.**

- 3.1 The minimum duration of the Evening M.Engg. programmes shall be three semesters. However extra semester may be required to complete the prerequisite-courses (the courses that has to be completed before in order to take a course in the Master programme) defined by the respective department. The prerequisite semester will start in January, the M. Eng. Programme will start in July every year The duration of each semester will be of 6 (six) months. A candidate for the Evening Master degree must complete all requirements for the degree within <u>three and half</u> academic years from the date of his/her course starts.
- 3.2 The Committee of Courses shall review the curricula at least once in every Academic Year and recommend changes and revision (if any) to the Faculty, and then the Faculty will recommend it to the Academic Council for approval.
- 3.3 Teaching for the courses is reckoned in terms of credits within the following guidelines:

Nature of course	Contact hour (for 1 credit)	
Theoretical Lecture	: 1 hour a week	
Laboratory/sessional	: 2 - 3 hours a week	
Project	$\therefore 2-3$ hours a week	
Field work/In-plant training	: 4 days of field work	

For other fractions of credit, proportionality shall be applied.



- 3.4 **Total Hours/week:** The total teaching hours including lecture, tutorial and laboratory shall be between **24 42** hours per week.
- 3.5 **Course Coordinator**: In each degree-awarding department, one of the teachers nominated by the Academic Committee shall act as **Course Coordinator** for each of the three semesters of a batch. With the approval of the Academic Committee, **Course Coordinator** will prepare and publish the class routine, showing details of the lectures, course plan, class test, etc. at the start of each semester.
- 3.6 Course Designation: Each course is designated by two to four letters identifying the course offering department followed by T, L or V (T, L and V indicates the nature of course, T for Theory, L for Laboratory/ Field work/ In-plant training and V for Viva-Voce) with the following criteria without any space between letters and numerical.

(a) The first digit will correspond to the semester (0 for Prerequisite, 1 for  $1^{st}$ , 2 for  $2^{nd}$  and 3 for  $3^{rd}$ ) in which the course is offered,

(b) The second and third digits will be reserved for departmental use for such things as to identify different areas within a department, and

The courses designation system is illustrated by the following example.



#### 4. Distribution of Courses

(a) One additional semester may be required for those students who need to complete the prerequisite courses and distribution of the courses will be as follows:

Course type	Credits
Theoretical	≤16
Practical	4
Max.	20

(b) The Evening Masters programme shall have a total of 60 credits and the distribution of courses and credits are as follows:



Course type	Credits
Theoretical	34 - 42
Practical	10-18
Project	4
Board Viva-voce	4
Total	60

## 5. Admission

Students shall be selected for admission based upon past academic records and performance in admission tests. The prerequisite semester will start in January, the M. Eng. Programme will start in July and the admission process of the programme will start in November every year.

## 5.1. Requirements

A bachelor degree (4 years) or its equivalent in science or engineering is the minimum educational requirement. The minimum qualifying points for being eligible to apply will be defined by the faculty. Students with more than one third-division/class/<2.25 (out of 4.0) CGPA in any public examinations will not be eligible to apply. Additional conditions may be imposed by the respective academic department.

## 5.2. The Admission Process

The concerned departments of the Faculty of Engineering shall separately conduct the admission process for the Programme.

## 6. Registration

- a. The candidates selected for the evening Programme shall be directly admitted upon recommendation of the Academic Committee of the Department.
- b. The selected students shall be registered under the prevailing rules of the Rajshahi University.
- c. The selected students of the Programme shall not be entitled to any facilities other than academic facilities. They will not be attached to or reside in a residential hall.
- d. University disciplinary rules shall apply to students enrolled in the evening Programme.

## 7. Academic Calendar

- 7.1 The minimum duration of the Evening M. Engg. programmes shall be three semesters, duration of each semester shall be **not less than 11 teaching weeks**.
- 7.2 There shall be final examination at the end of each semester conducted by the Examination Committee of the Departments.
- 7.3 **Academic schedule** for general notification shall be published before the start of the 1<sup>st</sup> semester, on approval of the Departmental Academic Committee. The schedule may be prepared according to the following guidelines:

Semester for Prerequisite course	Number of weeks
Teaching	<b>11</b> (66 working days)
Preparatory Leave	2
Examination Period	2 - 4
Result Publication	3 - 5
Total:	Max. 22
Off Day	4 weeks

1 <sup>st</sup> Semester	Number of weeks
1 Schlester	Number of weeks



Teaching	11 (66 working days)
Preparatory Leave	2
Examination Period	2 - 4
Result Publication	3 - 5
Total:	Max. 22

Off Day	4 weeks	
2 <sup>nd</sup> Semester	Number of weeks	
	Number of weeks	
Teaching	11 (66 working days)	
Preparatory Leave	2	
Examination Period	2 - 4	
Result Publication	3 - 5	
Total:	Max. 22	
Off Day 4 weeks		
(1 <sup>st</sup> Semester+2 <sup>nd</sup> Semester) Total:		
ard a		
3 <sup>rd</sup> Semester	Number of weeks	
Teaching	11 (66 working days)	
Preparatory Leave	4	
Examination Period	3 - 5	
Result Publication	4 - 6	
Total:	Max. 26	
(1 <sup>st</sup> Semester+2 <sup>nd</sup> Semester+3 <sup>rd</sup> 78 weeks Semester) Total:		

#### 8. Attendance

- 8.1 In order to be eligible for appearing at the semester final examinations a student shall be required to have attended at least 60% of the total number of lectures/tutorials/laboratory classes held in every course. The laboratory courses mean all laboratory/project/fieldwork or similar courses.
- 8.2 The concerned course teacher shall prepare an attendance report of the students. The report will be submitted to the Course coordinator within three days of the last class of the courses. Awarded marks for class attendance of the students shall also be prepared by the concerned course teacher and submitted to the Course coordinator. Attendance and corresponding marks should be notified to the students before the exam starts.

## 9. Grading System

9.1 The letter grade system for assessing the performance of the students shall be as follows:

Numerical grade	Letter Grade (LG)	Grade Point (GP)
80% or above	A+	4.0
75% to less than 80%	А	3.75
70% to less than 75%	A-	3.5
65 to less than 70%	B+	3.25
60% to less than 65%	В	3.0
55% to less than 60%	В-	2.75

Academic Ordinance for Evening M. Engg. Degree Faculty of Engineering, University of Rajshahi



50 to less than 55%	C+	2.5
45% to less than 50%	С	2.25
40 to less than 45%	D	2.0
less than 40%	F	0.0
Incomplete	Ι	0.0

A letter grade I (incomplete) shall be awarded for courses that could not be completed in one semester, which will continue through to the next semester.

9.2 A Semester wise Grade Point Average (SGPA) shall be computed for each semester. The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^{n} C_i G_i}{\sum_{i=1}^{n} C_i}$$

where, n is the number of courses offered during the semester,  $C_i$  is the number of credits allotted to a i'th course and  $G_i$  is the i'th grade point corresponding to the grade awarded for that course.

9.3 A Cumulative Grade Point Average (CGPA) shall also be computed at the end third semester in the following way:

$$CGPA = \frac{\sum_{i=1}^{m} S_i C_i}{\sum_{i=1}^{m} C_i}$$

where, m is the total number of semesters being considered,  $S_i$  is the SGPA of a i'th semester,  $C_i$  is the total number of credits in i'th semester.

- 9.4 Both SGPA and CGPA will be rounded off to the second place of decimal for reporting. For instance, SGPA=2.212 shall be rounded off as SGPA=2.22
- 9.5 **Earned Credit:** The courses in which a student has obtained minimum 'D' in 'Theoretical courses' and 'C' in 'laboratory/field work/in-plant training and viva voce' will be counted as credits earned by the student. Any course in which a student has earned 'F' grade in theoretical and 'F' or 'D' grades in laboratory/field work/in-plant training and viva voce will not be counted towards his/her earned credit.

#### 10. Marks and Credit Distribution

10.1.1	Theoretical	Class Participation and Attendance	10%
	Courses	Quizzes/Class Test/Assignment	20%
		Semester Final Examination	70%
10.1.2	Laboratory	Class Participation and Attendance	10%
		Quizzes and Viva-Voce	30%
		Practical/Design Work/Report	60%
10.1.3	Project	Internal Examiner (Supervisor)	35%
	_	(Based on performance, regularity, quality of analysis,	
		design, organization, writing style)	
		External Examiner	35%

#### **10.1 Distribution of Marks (as per nature of course)**

Academic Ordinance for Evening M. Engg. Degree Faculty of Engineering, University of Rajshahi



			-
	(Any teacher from the panel of examiners)		
	(Based on quality of analysis, design, organization,		
	writing style)		
	Presentation and Oral Examination (will be conducted		30%
In-plant	· · ·		50%+
-			50%
Field work	,		
Basis for aw			
	Attendance	Marks	
	90% and above	100%	
	85% to less than 90%	90%	
	80% to less than 85%	80%	
	75% to less than 80%	70%	
	70% to less than 75%	60%	
	65% to less than 70%	50%	
	60% to less than 65%	40%	
	less than 60%	0	
		(Based on quality of writing style)Presentation and Oral by respective examinatioIn-plant Training/ Field workReport evaluation (by tw examination committee)Basis for awarding marks for class pAttendance 90% and above 85% to less than 90% 80% to less than 85% 75% to less than 85% 75% to less than 75% 65% to less than 75% 65% to less than 65%	(Based on quality of analysis, design, organization, writing style)Presentation and Oral Examination (will be conducted by respective examination committee)In-plant Training/ Field workReport evaluation (by two internal examiners proposed by examination committee)Basis for awarding marks for class participation and attendance AttendanceMarks 90% and above 85% to less than 90% 80% to less than 85% 80% 75% to less than 85% 60% 65% to less than 75% 60% 60% to less than 65%Marks 40%

## **10.2 Credits Distribution**

## 10.2.1 Evening (M. Engg.)

Semester	Nature of course	Credit
	Theoretical	≤16
Prerequisite	Practical	4
semester	Total	$\leq 20$

Semester	Nature of course	Credit
1 <sup>st</sup> semester	Theoretical	12-16
	Practical/Field work	4-8
	Total	18-22
2 <sup>nd</sup> semester	Theoretical	12-16
	Practical/In-plant training	4-8
	Total	18-22
3 <sup>rd</sup> semester	Theoretical	8-12
	Practical	2-4
	Project	4
	Board Viva-voce	4
	Total	20-22
(1 <sup>st</sup> semester + 2 <sup>nd</sup> semester + 3 <sup>rd</sup> semester) Total		60

\*Industrial and Professional Training Requirements: Depending on each department's own requirements a student may have to complete a prescribed number of days of industrial/professional training in addition to minimum credit and other requirements, to the satisfaction of the concern department. \*Project and field study trip: The Chairman of the Department through Academic Committee shall arrange for holding Project and Field work trip.

#### **10.3 Duration of Examination**

Duration of **Theoretical examination of different courses** shall be as follows:

2 hours for course with 2 credits 3 hours for course more than 2 credits

## 11. Conduct of Examination and Rules for Promotion

- 11.1 Candidates earned SGPA of 2.0 with credit loss of not more than 4 shall be allowed to continue M. Eng. Programme, but in the next prerequisite semester he/she must earn the lost credit. Failing of which he will be discontinued
- 11.2 There shall be final examinations at the end of each semester conducted by the Examination Committee of the Departments.
- 11.3 **Minimum passing grade:** The minimum passing grade in a theoretical course will be D and the minimum passing grade in a laboratory/project/field work/in-plant training, thesis and **viva-voce** course will **be** C.
- 11.4 **Promotion to higher semester:** A student who has a SGPA of **2.2** or higher and credit loss not more than 8 and at least C grade in the laboratory/field work/in-plant training/project and viva voce courses of the 1<sup>st</sup> and 2<sup>nd</sup> semester shall be promoted to the 2<sup>nd</sup> and 3<sup>rd</sup> semester, respectively.
- 11.5 There shall be **no improvement** in laboratory/field work/in-plant training/project and viva voce courses. A student failing to secure a **minimum C grade** in any of these courses in any semester shall **fail the semester**.

#### 11.6 **Grade Point Improvement**:

11.6.1	A promoted student who obtains less than B grade in theoretical courses in any semester, may appear (Not more than 8 credits including F) in the upcoming regular examination of that semester to	
	improve the grade points.	
11.6.2	Grade obtained by a student in the courses in which he/she appeared	
	for improvement will be recorded for final assessment according to	
	clause 11.6.1 and the grade obtain by him/her in those courses at the	
	regular final examination shall automatically cancelled.	
11.6.3	Clause 11.6.2 is not valid for a candidate who cannot improve his/her	
	course grade; in that case the previous grade shall remain valid.	
11.6.4	A student must clear F grade of the courses of all the semesters.	

11.7 **Course Exemption:** Students who fail to be promoted to the 2<sup>nd</sup> and 3<sup>rd</sup> semester shall be exempted from taking the theoretical and laboratory courses where they obtained grades **equal to or better than B.** These grades would be counted towards calculating SGPA in the retained semesters.

## 12. Class Test

- 12.1 For theoretical courses of 2 or less than 2 credits there shall be at least three class tests and at least four class tests for greater than 2 credits in a semester, out of which the best two and three respectively, for each student shall be taken for assessment.
- 12.2 The class test shall have duration of 20 to 30 minutes and shall be held during the



scheduled lecture or tutorial periods.

- 12.3 The Academic Committee of the teaching Departments shall fix and announce the dates for the class tests.
- 12.4 All class tests shall ordinarily be of equal value and test scripts may be returned to the student before the subsequent test. The result of each individual test shall be posted for information of the students.
- 12.5 All **marks** of the class tests shall be summed up by the concerned course teacher and submitted to the **Chairman of the Examination Committee in a sealed cover.**

## **13. Publication of Results**

- 13.1 In order to be eligible for the award of Evening M. Engg. degree a student must earn 60 credit point (i.e. no F Grade) and his/her CGPA must be 2.25 or higher.
- 13.2 The overall results of a successful student shall be declared on the basis of CGPA. The Transcripts in English will show the course designation, course title, credit, letter grade and grade point of individual courses.
- 13.3 The final merit position will be based on CGPA.
- 13.4 The result of examinations shall be prepared and finalized by the examination committees at the end of last semister.
- 13.5 The final result shall be sent to the Controller of Examinations of the University of Rajshahi for publications.
- 13.6 The Controller of Examination shall publish the final result after being compared by the Examination Committee and upon the approval of the Vice-Chancellor.
- 13.7 Certificates shall be issued as per rules of Rajshahi University by the university authority

#### **14. Examination Committee**

- 14.1 The Examination Committee shall be proposed by the departmental Academic Committee and is subject to the approval of the Engineering faculty.
- 14.2 The examination committee shall consist of 5 members: (a) Course coordinator will be the Chairman of the committee and (b) three other members from among the teachers of the department concerned and (c) One expert member from outside the Department / University.

#### 14.3 **Functions of the Examination Committee:**

The Examination Committee shall perform the following functions in connection with examinations:

- 14.3.1 Propose the names of the question setters and script/dissertation/project/in plant training report examiners from the approved panel of examiners,
- 14.3.2 Moderate semester final examination questions of all theoretical courses,
- 14.3.3 Propose examination schedule (for recommendation of the departmental Academic Committee) to conduct the examinations properly,
- 14.3.4 Make necessary arrangements for holding the examination of all the **Theoretical and Laboratory examinations as well as Board Viva-Voce**
- 14.3.5 Appoint three tabulators. Tabulators will post marks **both in the preparation and the final** tabulation sheets, the prepare sheet will be kept by the Chairman of the Examination Committee and the final sheet will be submitted to the Controller of Examination.



14.3.6 Scrutinizer:

Examination Committee shall appoint scrutinizers outside the examination committee members.

- 14.3.7 Finalize the results.
- 14.4 The major duties of the Chairman of an Examination Committee shall be as follows:
  - 14.4.1 To call meetings of the Examination Committee.
  - 14.4.2 To send the moderated question papers to the Controller of Examinations, if necessary. Otherwise takes necessary steps for printing of the questions.
  - 14.4.3 To issue instructions to the examiners and to see that instructions issued are properly followed as per approval of the Examination Committee concerned.
  - 14.5.4 To hand over the marks received from the examiners to the tabulators and to submit the result sheet to the controller of examination.

## 15. Theoretical Examination and Board Viva -voce

- 15.1 There shall be two question setters and examiners for each theoretical course one of whom shall be the teacher of the course concerned. Question paper of a course will be divided into two sections: **Section A** and **Section B**. Each setter will set questions for both the sections but the examiner will examine answer scripts of only one of the sections.
- 15.2 In each theoretical course examination, the candidates shall be allowed a choice of question to the extent of not more than **35%** of the total number of questions to answer.
- 15.3 Scripts examined by a single examiner shall be scrutinized for any error and omissions by the scrutinizer.
- 15.4 If any discrepancy is found, the scrutinizer shall bring it to the notice of the Chairman of the Examination Committee and the Examination Committee shall make corrections in those cases.
- 15.5 The answer scripts of the examinations shall not be shown to the students nor reexamined for the purpose of re-assessing the answers, but may be re-scrutinized. Such re-securitization may be made on receipt of a formal application from a candidate together with the prescribed fee. No application shall be entertained unless it reaches the appropriate authority within fifteen days of the publication of such results. The scrutiny shall be arranged in a manner as may be considered appropriate by the Chairman of the Examination Committee.
- 15.6 A candidate absenting himself/herself in the course in an examination, in which he/she ought to have been present, will be considered **'F' grade** in that **course**.
- 15.7 The concerned Examination Committee will conduct the **Board Viva-voce**.

#### 16. Laboratory Evaluation

- 16.1 The concerned Lab teacher will conduct Lab Viva-voce.
- 16.2 The departmental Academic Committee will assign a teacher or a group of teachers to conduct a particular laboratory class or all the laboratory classes of a particular semester, as well as to conduct the laboratory evaluation of that class **during the scheduled course periods**.



16.3 One copy of the marks of the laboratory examination will be sent to the Chairman of the concerned Examination Committee.

N. B. In all other cases, if required, the existing rules of the University of Rajshahi shall be applicable.