Appendix 4

College of Engineering
Electrical Engineering Department
Assessment and Evaluation Committee
Analysis of Course Score report
Spring 2016

The Assessment and Evaluation Committee collected the data for all the courses and labs in the department. The data was tabulated as shown in appendix 1. As a general remark it was noticeable the low passing rate of three courses and extremely high passing rate (100%) of 5 courses. Those courses need further discussion to know the reasons behind the extreme rates and set the action required.
The courses are tabulated below.

Criteria for analysis: -
The analysis is based on the average marks of the courses, the passing rates and the maximum marks obtained

1. **The average marks**
   The average marks distribution is based on the normal Gaussian distribution with the center of the marks at 70%. Marks between 65 and 75 are considered normal otherwise some special cases can be acceptable based on criteria such as the number of students in the course, the level of the course and difficulty level of the course.
2. **Maximum marks**
   Marks of student should be distributed normally with average centered around 70%. It is considered acceptable for courses to have student with falling marks (below 60%) and student with excellent marks above 90%. Courses with students obtaining 100% maximum marks, or no excellent student (non above 90%) and or no falling student (non below 60%) need further discussion or explanations.
3. **Passing rate**
   Passing Rate varies among the different year level and the difficulty level of the courses. Courses with 100% passing rates or below 60% passing rate need further discussion or explanations
4. **The Lab marks**
   The Lab marks are excluded from the general analysis since it usually has different of marks distribution,

Noticeable points: -

A- Courses with low passing rates

Course Name	Code	Passing Rate
Basic Electronic Devices and Circuits	EE 111	50
Automatic Control Systems	EE 341	58

Electromagnetics 1	EE 206	58

B- Courses with very high Passing rates

Course Name	Code	Passing Rate
Selected Topics in Electrical Machines (Elective)	EE 491 (521)	100
Electric Energy Utilization (Elective)	EE 480	100
Principles of Electric Machines	EE 288	100
Distributive system and Planning	EE 472	100
Electric Machines (ME)	EE 398 (436)	100

C- Courses with high passing rates, high average marks and low maximum marks

Course Name	Course Code	Number of Students					Result Analysis						
							Passed		Failed				
		Registered	Banned	Withdrawn /Excused	Regular	Attended	No	%	No	%	Average Mark	Maximum Mark	Minimum Mark
Electric Energy Utilization (Elective)	EE 480	17	0	0	17	17	17	100	0	0	75	86	61
Electric Machines (ME)	EE 398 (436)	10	1	1	8	8	8	100	0	0	60	78	97
Electric Energy Utilization (Elective)	EE 480	17	0	0	17	17	17	100	0	0	75	86	61

General analysis

The Exam Results Analysis Template was used to analyze the data. The analysis results for the average marks, the maximum marks and the falling rate were compared to those of Fall 2015. The results are given in appendix two. It is clear that that there is a considerable improvements of the results in spring 2016 in comparison to those of fall 2015.

Assessment and Evaluation Committee
Coordinator Dr. Mohamed Ouda ,
Members:- Dr. Abdullah Al Ahmadi, Eng. Humran Khan

Appendix: -1 Course Score Summary

Course Name	Course Code	Number of Students					Result Analysis						
							Passed		Failed				
		Registered	Banned	Withdrawn /Excused	Regular	Attended	No	%	No	%	Average Mark	Maximum Mark	Minimum Mark
Fundamentals of Electric Circuits	EE 101	42	1	4	39	37	29	78	8	22	62	95	29
Basic Electronic Devices and Circuits	EE 111-136	28	2	4	22	20	14	70	6	30	61	90	24
Basic Electronic Devices and Circuits	EE 111-150	7	1	0	6	6	3	50	3	50	55	70	39
Electric Circuits Analysis	EE 202	14	3	3	8	7	5	72	2	28	53	80	27
Electromagnetics 1	EE 206	13	1	0	12	12	7	58	5	42	51	88	14
Logic Design	EE 208	19	1	2	16	14	14	88	2	12	75	95	60
Basics of electrical and electronic circuits(ME)	EE 210	15	0	1	14	14	11	79	3	21	67	93	39
Signals and Systems Analysis	EE 221	18	0	0	18	17	16	89	2	11	71	100	1
Electromagnetics 2	EE 234	14	0	2	12	12	10	83	2	17	71	93	53
Fundamentals of Electrical Power Systems	EE 270	19	0	2	17	17	15	88	2	12	72	98	37
Principles of Electric Machines	EE 288	14	0	0	15	14	14	100	0	0	79	96	66
Analog and Digital Measurements	EE 307	10	0	0	10	10	8	80	2	20	70	98	34
Communications Principles	EE 322	39	0	3	36	35	32	91	3	9	1	96	16
Automatic Control Systems	EE 341	13	1	0	12	11	7	58	5	42	57	93	10
Microprocessors	EE 360 (2sections)	15	0	0	15	15	12	80	3	20	65	95	47
Electric Power Systems Analysis	EE 372 (542)	37	0	0	37	37	29	78	8	22	68	93	28
Power Electronics	EE 374 Section 224	13	0	0	13	13	11	85	2	15	66	82	48
Power Electronics	EE 374 Section 245	21	1	0	20	19	17	85	3	15	65	85	37
Electric Machines	EE 389 (536)	20	0	0	20	20	17	85	3	15	67	91	43
Electric Machines (ME)	EE 398 (436)	10	1	1	8	8	8	100	0	0	60	78	97
Disrtibutive system and Planning	EE 472	10	0	0	10	10	10	100	0	0	79	91	60
Applied Control	EE 475	19	0	0	19	19	17	89	2	10	67	83	50
Power Systems Protection	EE 476 (562)	19	0	0	19	19	17	89	2	11	69	90	44

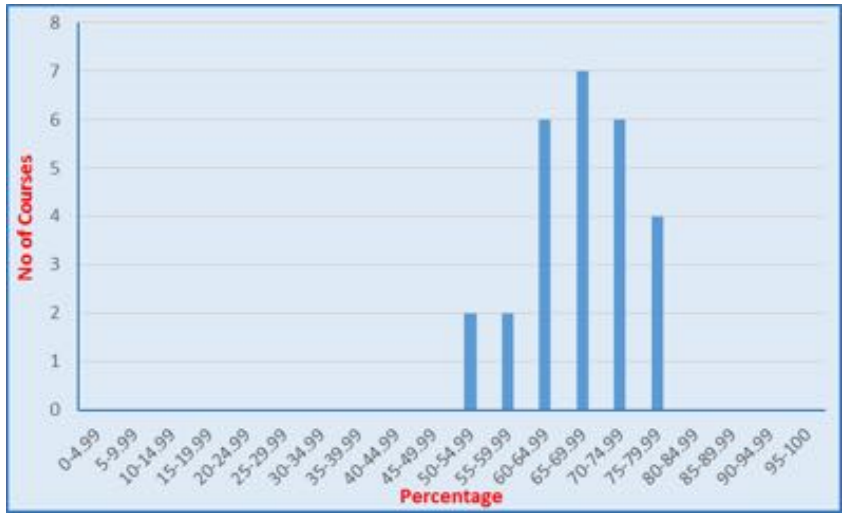
High-Voltage Engineering Systems	EE 477 (560)	18	0	0	18	18	14	78	4	22	62	80	39
Distribution System Planning	EE 478	5	0	0	5	0	5	100	0	0	62	72	60
Electric Energy Utilizatin(Elective)	EE 480	17	0	0	17	17	17	100	0	0	75	86	61
Selected Topics in Electrical Machines(Elective)	EE 491 (521)	14	0	0	14	14	14	100	0	0	77	92	61
The Labs													
Microprocessors Lab	EE 361(546)	10	0	0	10	10	10	100 %	0	0%	86.5	93	80
Microprocessors Lab	EE 361(549)	18	0	0	18	18	18	100	0	0	85	91	77
Protection & High Voltage Lab.	EE 479	12	0	1	11	11	11	100	0	0	80.45	92	73
Protection & High Voltage Lab.	EE 479 (530)	10	0	0	10	10	10	100	0	0	81.6	90	76
Principles of Electric Power and Machines Lab	EE 271 (574)	18	0	0	18	18	18	100	0	0	85	91	77
Measurements and Control Lab.	EE 308	11	0	2	9	9	8	88	1	11	62	70	52
Measurements and Control Lab.	EE 308 (1588)	7	0	1	6	6	6	100	0	0	68	88	60
Communications Principles Lab.	EE 323	18	0	1	17	17	17	100	0	0%	84.5	97	72
Principles of Electric Power and Machines Lab	EE 271 (570)	10	0	3	7	7	7	100	0	0	77.14	85	64
Basic of Electronic Devices and Circuits Lab.	EE 212	7	1	0	6	6	6	100	0	0	75	85	65
Electric Power and Machine Lab 2	EE 373	18	0	0	18	18	18	100	0	0	71.22	85	60

Notes:
- Passed (%) =(passed/attended)
- Failed (%)= (Failed/attended) or Failed(%)=100%-(Passed(%))
- Average= (Sum of final all marks of attended exam students/number of attended student)

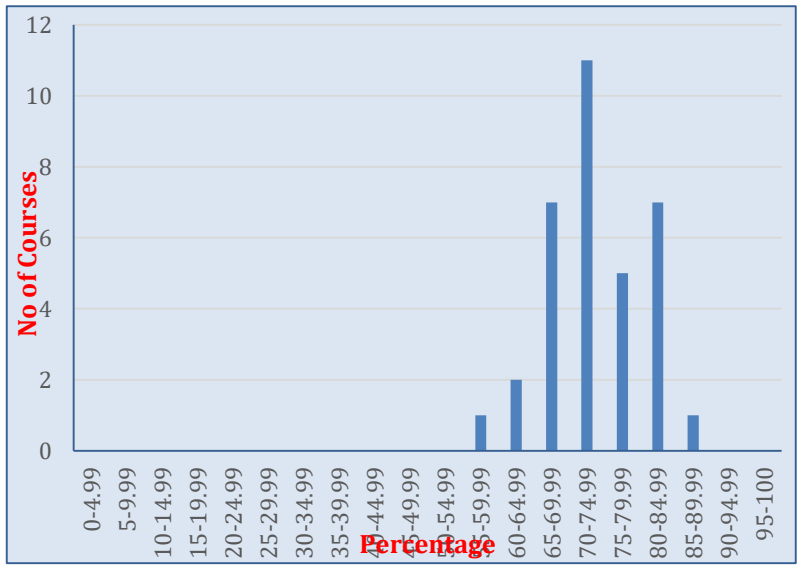
Appendix: -2 General Analysis

Average marks

Range	# of courses Spring 2016	# of courses Fall-2015
0-4.99	0	0
5-9.99	0	0
10-14.99	0	0
15-19.99	0	0
20-24.99	0	0
25-29.99	0	0
30-34.99	0	0
35-39.99	0	0
40-44.99	0	0
45-49.99	0	0
50-54.99	2	0
55-59.99	2	1
60-64.99	6	2
65-69.99	7	7
70-74.99	6	11
75-79.99	4	5
80-84.99	0	7
85-89.99	0	1
90-94.99	0	0



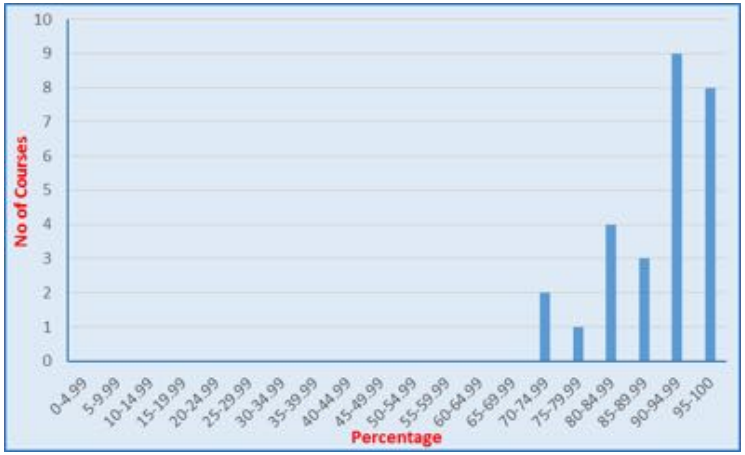
Spring 2016



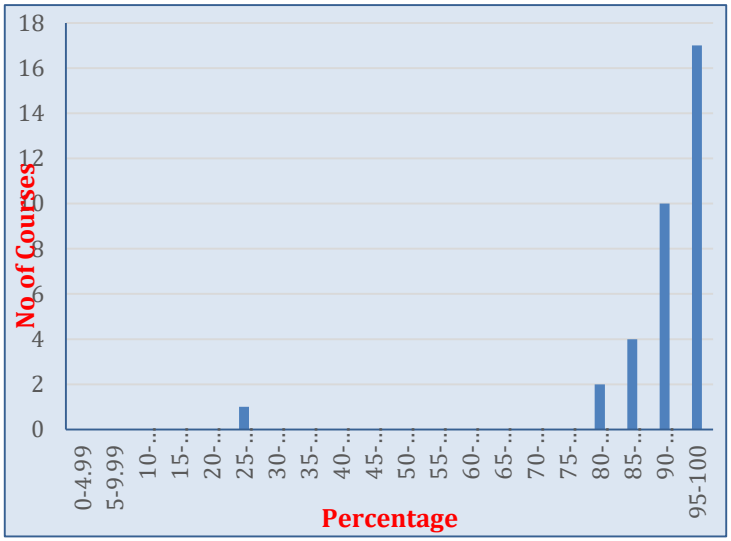
Fall 2015

Maximum marks

Range	# of courses	# of courses
	Spring-2016	**Fall-2015**
0-5	0	0
5-10	0	0
10-15	0	0
15-20	0	0
20-25	0	0
25-30	0	1
30-35	0	0
35-40	0	0
40-45	0	0
45-50	0	0
50-55	0	0
55-60	0	0
60-65	0	0
65-70	0	0
70-75	2	0
75-80	1	0
80-85	4	2
85-90	3	4
90-95	9	10
95-100	8	17



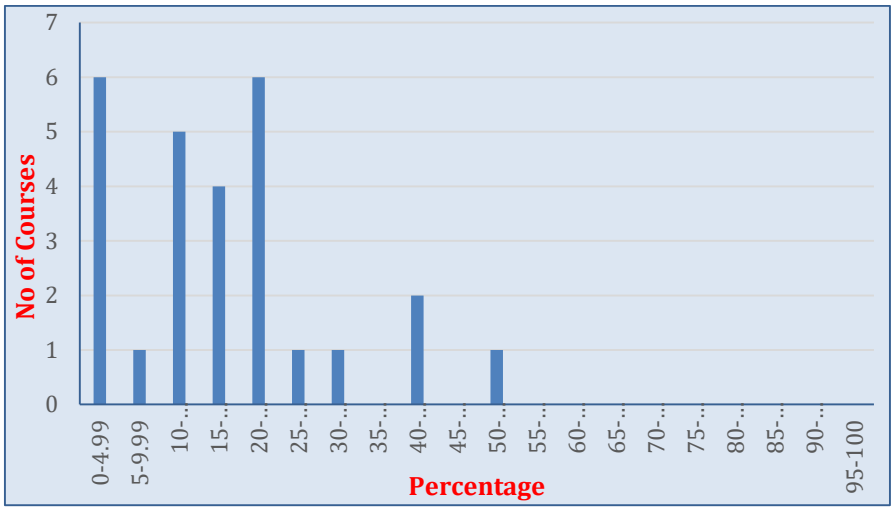
Spring 2016



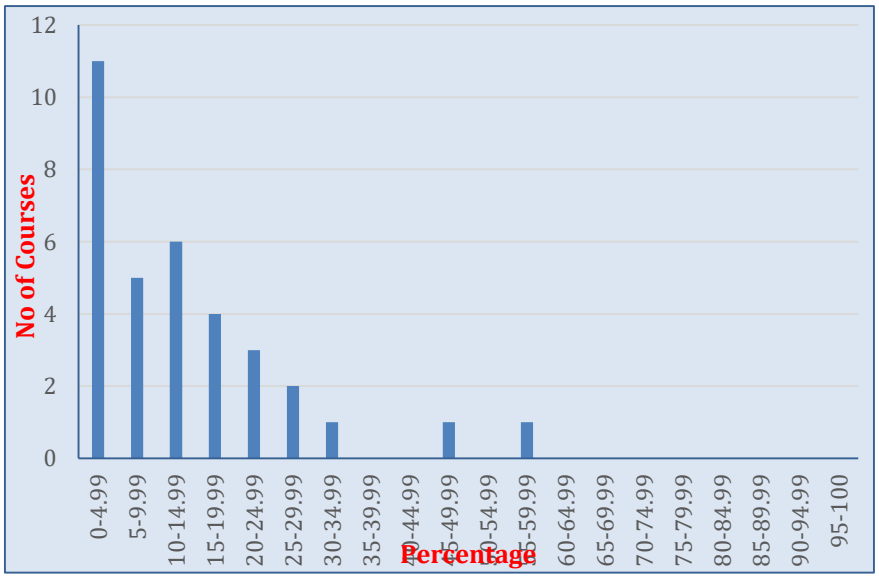
Fall 2015

Falling Rate

Range	# of courses 2014	# of courses 2015
0-5	6	11
5-10	1	5
10-15	5	6
15-20	4	4
20-25	6	3
25-30	1	2
30-35	1	1
35-40	0	0
40-45	2	0
45-50	0	1
50-55	1	0
55-60	0	1
60-65	0	0
65-70	0	0
70-75	0	0
75-80	0	0
80-85	0	0
85-90	0	0
90-95	0	0
95-100	0	0



Spring 2016



Fall 2015