

1st Year (Semester-1)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Time of the Final Written Exam in |
|--|--|-----------|----------------------------|--------------------------|----------|----------|-----------------------------------|
| | | | | Lecture | Tutorial | Lab | |
| EB 101 | Engineering Mathematics (1) | 3 | None | 2 | 2 | 1 | 3 |
| EB 111 | Engineering Mechanics (1) | 3 | None | 3 | 1 | 0 | 3 |
| EB 121 | Engineering Physics (1) | 3 | None | 2 | 1 | 2 | 3 |
| EB 141 | Eng. Drawing & Descriptive Geometry (1) | 3 | None | 2 | 3 | 0 | 3 |
| <u>UEC 01E</u> | <u>Computer Skills & Programming Concepts (1)</u> | 2 | None | 1 | 1 | 2 | 2 |
| <u>EM170</u> <u>OR</u> <u>UGE 01</u> | <u>Introduction to Manufacturing Processes</u> <u>OR</u> <u>English Language 1</u> | <u>2</u> | <u>None</u> | <u>2 or 1</u> | <u>0</u> | <u>2</u> | <u>2</u> |
| HU 121!! <u>OR</u> <u>EB131</u> | Engineering Perspectives and Technology <u>OR</u> General Chemistry | 2 | None | 2 | 0 | 2 | 2 |
| Total Credit hours | | 18 | Total Contact Hours | 13 or 14 | 8 | 9 | |
| | | | | 30 or 31 | | | |

1st Year (Semester-2)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Time of the Final Written Exam in Hours |
|---|---|-----------|----------------------------|--------------------------|-----------------|-----------|---|
| | | | | Lecture | Tutorial | Lab | |
| EB 102 | Engineering Mathematics (2) | 3 | EB 101 | 2 | 2 | 1 | 3 |
| EB 112 | Engineering Mechanics (2) | 3 | EB 111 | 2 | 2 | 0 | 3 |
| EB 122 | Engineering Physics (2) | 3 | EB 121 | 2 | 1 | 2 | 3 |
| EB 142 | Eng. Drawing & Descriptive Geometry (2) | 2 | EB 141 | 1 | 2 | 1 | 3 |
| <u>UEC 02E</u> | <u>Computer Skills & Programming Concepts (2)</u> | 2 | UEC 01E | 1 | 1 | 2 | 2 |
| <u>EM170</u> <u>OR</u> <u>EB131</u> | <u>Introduction to Manufacturing Processes</u> <u>OR</u> <u>General Chemistry</u> | 2 | None | 1 | 0 or 1 | 2 | 2 |
| UGE 00 | English Language 0 | 0 | None | 1 | 0 | 2 | 2 |
| UGA 03 | Arabic language | 2 | None | 2 | 0 | 0 | 2 |
| UCS 01 | Communication Skills | 1 | None | 0 | 2 | 0 | 1 |
| Total Credit hours | | 18 | Total Contact Hours | 12 | 10 or 11 | 10 | |
| | | | | 32 or 33 | | | |

2nd Year (Semester-3)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|---|-----------|----------------------------|--------------------------|----------|-----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| EB103 | Engineering Mathematics (3) | 3 | EB102 | 2 | 2 | 1 | 40 | 10 | | | 50 | 100 | 3 |
| EP217 | Materials Science | 3 | EB121 | 2 | 1 | 2 | 40 | | | 10 | 50 | 100 | 3 |
| EM 251 | Fluid Mechanics | 3 | EB112 | 2 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 210 | Organic Chemistry (1) | 3 | EB131 | 2 | 0 | 3 | 40 | | | 10 | 50 | 100 | 3 |
| EP 214 | Inorganic Chemistry | 3 | EB131 | 2 | 1 | 2 | 40 | | | 10 | 50 | 100 | 3 |
| HU113 | Tech. Report Writing and Presentation Skill | 2 | None. | 1 | 0 | 2 | 40 | 10 | | | 50 | 100 | 2 |
| HU | Elective (1) | 2 | ----- | 2 | 0 | 0 | 50 | | | | 50 | 100 | 2 |
| Total Credit hours | | 19 | Total Contact Hours | 13 | 6 | 11 | | | | | | | |
| | | | | | | | 30 | | | | | | |

2nd Year (Semester-4)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | | Time of the Final Written Exam in Hours |
|---------------------------|--------------------------------------|-----------|----------------------------|--------------------------|----------|-----------|------------------------------------|--------------------------|------|-------------------|--------------------|-------|---|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | Total | |
| EB 204 | Engineering Mathematics (4) | 3 | EB103 | 2 | 2 | 1 | 40 | 10 | | | 50 | 100 | 3 |
| EE 208 | Fundamentals of Electric Engineering | 3 | BE122& BE102 | 2 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 213 | Organic Chemistry (2) | 3 | EP 210 | 2 | 0 | 3 | 40 | | | 10 | 50 | 100 | 3 |
| EP 314 | Instrumentation Analysis | 3 | EB131 | 2 | 0 | 3 | 40 | | | 10 | 50 | 100 | 3 |
| EP 315 | Physical Chemistry | 3 | EB131 | 2 | 0 | 3 | 40 | | | 10 | 50 | 100 | 3 |
| UGE 02 | English Language (2) | 2 | UGE 01 | 1 | 0 | 2 | 40 | 10 | | | 50 | 100 | 2 |
| Total Credit hours | | 17 | Total Contact Hours | 11 | 4 | 13 | | | | | | | |
| | | | | 28 | | | | | | | | | |

3rd Year (Semester-5)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|--|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| EB 207 | Numerical Analysis Using MATLAB | 4 | EB 102 | 3 | 1 | 2 | 40 | | | 10 | 50 | 100 | 3 |
| EB 208 | Applied Probability and Statistics | 3 | EB204 | 3 | 1 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 200 | Chemical Engineering Thermodynamics (1) | 3 | EB122 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 327 | Chemical Process Principles | 4 | EB131& EB103 | 3 | 3 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 201 | Introduction to Petrochemical Industries | 3 | EP210 | 3 | 0 | 0 | 50 | | | | 50 | 100 | 3 |
| UGE 03 | English Language (3) | 2 | UGE 02 | 1 | 0 | 2 | 40 | 10 | | | 50 | 100 | 2 |
| Total Credit hours | | 19 | Total Contact Hours | 15 | 7 | 4 | | | | | | | |
| | | | | 26 | | | | | | | | | |

3rd Year (Semester-6)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|---|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| UGA 03 | Arabic Language Skills | 2 | None | 2 | 0 | 0 | 40 | | | | 60 | 100 | 2 |
| EP 389 | Introduction to Environmental Engineering | 3 | EP210 | 3 | 0 | 0 | 50 | | | 0 | 50 | 100 | 2 |
| EP 220 | Chemical Engineering Thermodynamics (2) | 4 | EP200 | 3 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 231 | Heat Transfer in Chemical Process | 4 | EP 327 | 3 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 340 | Safety for Petrochemical Industries | 2 | --- | 2 | 0 | 0 | 50 | | | | 50 | 100 | 2 |
| EP <i>elective</i> | <u>Elective (1):</u> | 3 | - | 2 | 0 | 2 | 40 | | | 10 | 50 | 100 | 3 |
| Total Credit hours | | 18 | Total Contact Hours | 15 | 4 | 4 | | | | | | | |
| | | | | | | | 23 | | | | | | |

4th Year (Semester-7)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|--|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| EP 313 | Mass Transfer | 3 | EP231 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 324 | Gas Treatment and Liquefaction | 4 | EP213& EP214& EP327 | 4 | 1 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 333 | Chemical Reaction & Industrial Catalysis | 4 | EP315 & EB103 | 3 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 335 | Polymer Science & Engineering (1) | 3 | EP213& EP217 | 2 | 1 | 1 | 40 | | | 10 | 50 | 30 | 3 |
| EP <i>elective</i> | <u>Elective (2):</u> | 3 | - | 3 | 0 | 0 | 40 | | | 10 | 50 | 100 | 3 |
| Total Credit hours | | 17 | Total Contact Hours | 14 | 6 | 2 | | | | | | | |
| | | | | 22 | | | | | | | | | |

4th Year (Semester-8)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|-----------------------------------|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| EP 317 | Unit Operation | 4 | EP313 | 3 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 320 | Automatic Process Control | 3 | EB204 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 336 | Polymer Science & Engineering (2) | 3 | EP335 | 2 | 1 | 1 | 40 | | | 10 | 50 | 30 | 3 |
| EP 318 | Corrosion Engineering | 3 | EP131 | 2 | 1 | 2 | 40 | | | 10 | 50 | 100 | 3 |
| EP 329 | Industrial Fibers Technology | 3 | EP 335 | 3 | 0 | 0 | 50 | | | | 50 | 100 | 3 |
| HU | Elective (1) | 2 | ----- | 2 | 0 | 0 | 50 | | | | 50 | 100 | 2 |
| Total Credit hours | | 18 | Total Contact Hours | 14 | 6 | 4 | | | | | | | |
| | | | | | | | 24 | | | | | | |

5th Year (Semester-9)

| Course Code | Course Name | Cr | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | Time of the Final Written Exam in Hours | |
|---------------------------|---|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|---|-------|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | | Total |
| EP 362 | Petroleum Refining & Evaluation of Its Products | 4 | EP213 | 3 | 2 | 1 | 40 | | | 10 | 50 | 100 | 3 |
| EP 361 | Fertilizers Industries | 3 | EP 201 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 368 | Chemical Plant Design (1) | 4 | EP 327 | 3 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 385 | Optimization of Chemical Process | 3 | EP333& EP231& EB207 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP490-1 | Graduation Project (1) | 4 | Department Approval | 3 | 0 | 3 | 20 | 30 | 30 | -- | -- | 100 | -- |
| Total Credit hours | | 18 | Total Contact Hours | 13 | 8 | 4 | | | | | | | |
| | | | | 25 | | | | | | | | | |

5th Year (Semester-10)

| Course Code | Course Name | Cr. | Pre-requisites | Number of Hours per Week | | | Distribution of Grade (in percent) | | | | | | Time of the Final Written Exam in Hours |
|---------------------------|--|-----------|----------------------------|--------------------------|----------|----------|------------------------------------|--------------------------|------|-------------------|--------------------|-------|---|
| | | | | Lecture | Tutorial | Lab | Class Work | Project & IT application | Oral | Lab (or Workshop) | Final Written Exam | Total | |
| EP <i>elective</i> | <u>Elective (3):</u> | 3 | - | 3 | 0 | 0 | 40 | | | 10 | 50 | 100 | 3 |
| EP 369 | Chemical Plant Design (2) | 3 | EP368 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 339 | Production of Plastics | 3 | EP336 | 3 | 0 | 0 | 50 | | | | 50 | 100 | 3 |
| EP 390 | Industrial Equipment & Material Handling | 3 | PE317 | 2 | 2 | 0 | 50 | | | | 50 | 100 | 3 |
| EP490-2 | Graduation Project (2) | 4 | EP490-1 | 3 | 0 | 3 | 20 | 30 | 30 | -- | -- | 100 | -- |
| UCS 02 | Communication Skills(2) | 1 | UCS 01 | 0 | 2 | 0 | | | | | | | 1 |
| Total Credit hours | | 17 | Total Contact Hours | 13 | 6 | 3 | | | | | | | |
| | | | | 22 | | | | | | | | | |