**CHEMISTRY 1**

Code: CH 101

Contact: 3L + 1T

Credits: 4

Course outcome:

|  |  |
| --- | --- |
| CO | Statement |
| C01 | Able to apply fundamental concepts of thermodynamics in different engineering applications |
| C02 | Able to analyze & design simple and technologically advance electrical and energy storage devices |
| C03 | Able to prepare composites, Synthetic polymers, etc. |
| CO4 | Able to apply the knowledge of chemical reactions to industries and scientific and technical fields |
| C05 | Capable to evaluate theoretical and practical aspects relating to the transfer of the production of chemical products from laboratories to the industrial scale, in accordance with environmental considerations |

**PSO:**

**PSO1:**Ability to Identify, Formulate & Solve problems of basics of Electronics & Communication Engineering and to apply them to various areas like Analog & digital Circuits, Signal & systems, Communication, VLSI, Embedded System etc.

**PSO2:**Ability to design the systems of Electronics & Communication Engineering using advanced hardware and software tools with analytical skills to achieve the Soceital needs.

**PSO3:** Knowledge of social & environmental awareness along with ethical responsibility to achieve a successful career addresses the real world applications using optimal resources as an entrepreneur.

Mapping with CO with PSO

|  |  |  |  |
| --- | --- | --- | --- |
|  | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 1 | 1 |
| CO2 | 2 | 2 | 1 |
| CO3 | 1 | 1 | 2 |
| CO4 | 3 | 3 | 3 |
| CO5 | 3 | 3 | 3 |
| AVG OF CH 101 | 2.2= 2 | 2 | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cos | Class test (T1)  (30) | Slot test-1 (T2) (30) | Assignment  (T3) (30) | Slot test-2 (T4) (30) | Quiz |
| CO1 | Q1 | Q1, Q2 | - | Q1 | √ |
| CO2 | Q3 | Q5 | - | Q4 | √ |
| CO3 | Q2 | Q3,Q4 | - | Q5 | √ |
| CO4 | Q4,Q5 | - | Q1, Q2 | Q3 | √ |
| CO5 | - | - | Q3, Q4, Q5 | Q2 | √ |

**CO attainment for a course ES 101:**

Target level 1: 60% students must score 60% and above

Target level 2: 70% students must score 60% and above

Target level 3: 80% students must score 60% and above

Total number of student for the batch 2012-2016 in 1st year =141

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course outcome | Avg. grading on scale of 3 | Distribution % | | |
| 3 | 2 | 1 |
| CO1 |  | 101/123=82.11% |  |  |
| CO2 |  | 79/123=64.2% |  |  |
| CO3 |  | 86/123=70% |  |  |
| CO4 |  | 111/123=90.24% |  |  |
| CO5 |  | 113/123=91.8% |  |  |

|  |  |  |
| --- | --- | --- |
| CO and PO Scale | 3 | Strongly Related |
| 2 | Moderately Related |
| 1 | Low |

CO achieved if percentage (%) of students is greater than or equal to 60

|  |  |  |
| --- | --- | --- |
| Course outcomes | % of students achieved CO | CO result (achieved) (Y/N) |
| CO1 | 82.11% | Y |
| CO2 | 64.2% | Y |
| CO3 | 70% | Y |
| CO4 | 90.24% | Y |
| CO5 | 91.8% | Y |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO** | **Statement** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| 1 | Able to apply fundamental concepts of thermodynamics in different engineering application | 3 | 3 | 3 | 3 | - | - | 1 | - | - | - | 1 | 2 |
| 2 | Able to analyze & design of energy storage devices | 3 | 1 | 3 | 2 | 3 | 1 | 1 | - | - | - | - | 1 |
| 3 | Able to prepare composites, Synthetic polymers, etc. | 3 | 1 | 3 | 2 | 3 | 2 | 2 | - | - | - | - | 1 |
| 4 | Able to analyze & generate experimental skills | 3 | 3 | 3 | 3 | - | - | 1 | - | - | - | - | 2 |
| 5 | To enhance the thinking capabilities in the modern trends in Engineering & Technology | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | - | - | 3 |
|  | | 3 | 2 | 3 | 3 | 1 | 1 | 1 | - | - | - | - | 2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| CH 101 | 3 | 2 | 3 | 3 | 1 | 1 | 1 | - | - | - | - | 2 |

Result of attainment of POs (CIE)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | COs | CO Attainment | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| CH 101 | CO1 | 82.11% | 82.11% | 82.11% | 82.11% | 82.11% | - | - | 27.37% | - | - | - | 27.37% | 54.74% |
| CO2 | 64.2% | 64.2% | 21.4% | 64.2% | 32.1% | 64.2% | 21.4% | 21.4% | - | - | - | - | 21.4% |
| CO3 | 70% | 70% | 23.33% | 70% | 35% | 70% | 35% | 35% |  |  |  |  | 23.33% |
| CO4 | 90.24% | 90.24% | 90.24% | 90.24% | 90.24% | - | - | 30.08% | - | - | - | - | 45.12% |
| CO5 | 91.8% | 91.8% | 91.8% | 91.8% | 91.8% | 30.6% | 30.6% | 30.6% | 30.6% | 30.6% | - | - | 91.8% |
| AVG of CH 101 |  |  | 79.67% | 61.8% | 79.7% | 66.25% | 54.9% | 29% | 28.9 |  |  |  |  | 47.2 |

Result of POs (SEE: Semester End Examination)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SL No. | Course | % of students achieved >=60% | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| 1 | CH 101 | 67.2% | 67.2% | 44.8% | 67.2% | 67.2% | 22.4% | 22.4% | 22.4% | - | - | - | - | 44.8% |

**CO-PSO mapping**

|  |  |  |  |
| --- | --- | --- | --- |
|  | PSO1 | PSO2 | PSO3 |
| CO1 | 2 | 1 | 1 |
| CO2 | 2 | 2 | 1 |
| CO3 | 1 | 1 | 2 |
| CO4 | 3 | 3 | 3 |
| CO5 | 3 | 3 | 3 |
| AVG OF CH 101 | 2.2= 2 | 2 | 2 |

**Result of attainment of PSOs (CIE) (NB : The following table to be generated considering mapping of COs with PSOs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Course | COs | CO Attainment | PSO1 | PSO2 | PSO3 |
| CH 101 | CO1 | 82.11% | 54.74% | 54.74% | 54.74% |
| CO2 | 64.2% | 42.8% | 42.8% | 42.8% |
| CO3 | 70% | 46.66% | 46.66% | 46.66% |
| CO4 | 90.24% | 60.16% | 60.16% | 60.16% |
| CO5 | 91.8% | 61.2% | 61.2% | 61.2% |
| AVG of CH 101 |  |  | 53.1% | 53.1% | 53.1% |

**Result of attainment of PSOs (SEE: Semester End Examination) ( NB : The following table to be generated considering mapping of COs with PSOs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SL No. | Course | % of students achieved >=60% | PSO1 | PSO2 | PSO3 |
| 1 | CH 101 | 67.2% | 44.8% | 44.8% | 44.8% |