**Analysis of feedbacks of students of Semester- III, M.Sc. Chemistry, 2017-2018**

**Analysis of feedbacks of students about course curriculum**

In part I students have given the feedback about different aspects of course curriculum such as

1. The course objectives and outcomes were clearly defined/identified
2. Length: Course material were of appropriate length
3. Relevance: Course material were relevant
4. Quality: Course material were of high quality and up to date
5. Organization: Material was well organized
6. The course provides useful inputs
7. The course provides focus on skill development/ employability/ entrepreneurship
8. The course updates understanding in this field as per their satisfaction in 4 levels:
9. Average
10. Good
11. Excellent
12. Outstanding

The students graded the about course curriculum as follows:

Table 1: Frequencies of grades given by students for course curriculum

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 3 | 2 | 37 | 3 | 0 | 10 | 1 | 0 | 0 | 0 | 1 |
| G | 12 | 75 | 161 | 23 | 37 | 44 | 11 | 8 | 8 | 11 | 27 |
| E | 51 | 154 | 233 | 53 | 122 | 26 | 33 | 24 | 13 | 34 | 80 |
| O | 15 | 152 | 97 | 25 | 33 | 24 | 51 | 128 | 139 | 107 | 68 |
| Total | 81 | 383 | 528 | 104 | 192 | 104 | 96 | 160 | 160 | 152 | 176 |

Table 2: Percentage of grades given by students for course curriculum

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 4 | 1 | 7 | 3 | 0 | 10 | 1 | 0 | 0 | 0 | 1 |
| G | 15 | 20 | 30 | 22 | 19 | 42 | 11 | 5 | 5 | 7 | 15 |
| E | 63 | 40 | 44 | 51 | 64 | 25 | 34 | 15 | 8 | 22 | 45 |
| O | 19 | 40 | 18 | 24 | 17 | 23 | 53 | 80 | 87 | 70 | 39 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Fig. 1: Graphical representation of grades given to course curriculum by students

**Course Curriculum Feedback: BioInorganic and Supramolecular Chemistry**

* 63% of the students have rated course curriculum of BioInorganic and Supramolecular Chemistry as Excellent
* 19**%** of the students have rated course curriculum of BioInorganic and Supramolecular Chemistry as outstanding
* 15% of the students have rated course curriculum of BioInorganic and Supramolecular Chemistry as good
* 4% of the students have rated course curriculum of BioInorganic and Supramolecular Chemistry as average

**Course Curriculum Feedback: Advanced Organic Chemistry**

* 40**%** of the students have rated course curriculum of Advanced Organic Chemistry as Excellent
* 40**%** of the students have rated course curriculum of Advanced Organic Chemistry as outstanding
* 20**%** of the students have rated course curriculum of Advanced Organic Chemistry as good
* 1% of the students have rated course curriculum of Advanced Organic Chemistry as average

**Course Curriculum Feedback: Structural Elucidation by Spectral Methods**

* 44**%** of the students have rated course curriculum of Structural Elucidation by Spectral Methods as Excellent
* 18**%** of the students have rated course curriculum of Structural Elucidation by Spectral Methods as outstanding
* 30% of the students have rated course curriculum of Structural Elucidation by Spectral Methods as good
* 7% of the students have rated course curriculum of Structural Elucidation by Spectral Methods as average

**Course Curriculum Feedback: Solid State Chemistry**

* 51**%** of the students have rated course curriculum of Solid State Chemistry as Excellent
* **24%** of the students have rated course curriculum of Solid State Chemistry as outstanding
* 22% of the students have rated course curriculum of Solid State Chemistry as good
* 3% of the students have rated course curriculum of Solid State Chemistry as average

**Course Curriculum Feedback: Photochemistry,Free Radicals and Pericyclic Reactions**

* 64**%** of the students have rated course curriculum of Photochemistry,Free Radicals and Pericyclic Reactions as Excellent
* 17**%** of the students have rated course curriculum of Photochemistry,Free Radicals and Pericyclic Reactions as outstanding
* 19**%** of the students have rated course curriculum of Photochemistry,Free Radicals and Pericyclic Reactions as good
* 0% of the students have rated course curriculum of Photochemistry,Free Radicals and Pericyclic Reactions as average

**Course Curriculum Feedback: Thermodynamics**

* 25**%** of the students have rated course curriculum of Thermodynamicsas Excellent
* 23**%** of the students have rated course curriculum of Thermodynamicsas outstanding
* 42% of the students have rated course curriculum of Thermodynamicsas good
* 10% of the students have rated course curriculum of Thermodynamicsas average

**Course Curriculum Feedback:** Advanced Electrochemistry

* 34**%** of the students have rated course curriculum of Advanced Electrochemistry as Excellent
* 53**%** of the students have rated course curriculum of Advanced Electrochemistry as outstanding
* 11% of the students have rated course curriculum of Advanced Electrochemistry as good
* 1% of the students have rated course curriculum of Advanced Electrochemistry as average

**Course Curriculum Feedback:** Electroanalytical Techniques

* 15**%** of the students have rated course curriculum of Electroanalytical Techniques as Excellent
* 80**%** of the students have rated course curriculum of Electroanalytical Techniques as outstanding
* 5% of the students have rated course curriculum of Electroanalytical Techniques as good
* 0% of the students have rated course curriculum of Electroanalytical Techniques as average

**Course Curriculum Feedback:** Advanced Analytical Techniques-I

* 87**%** of the students have rated course curriculum of Advanced Analytical Techniques-I as Excellent
* 8**%** of the students have rated course curriculum of Advanced Analytical Techniques-I as outstanding
* 5% of the students have rated course curriculum of Advanced Analytical Techniques-I as good
* 0% of the students have rated course curriculum of Advanced Analytical Techniques-I as average

**Course Curriculum Feedback: Quality Assurance & Accreditation**

* 22**%** of the students have rated course curriculum of Quality Assurance & Accreditation as Excellent
* 70**%** of the students have rated course curriculum of Quality Assurance & Accreditation as outstanding
* 7% of the students have rated course curriculum of Quality Assurance & Accreditation as good
* 0% of the students have rated course curriculum of Quality Assurance & Accreditation as average

**Course Curriculum Feedback:Organic Synthesis**

* 45**%** of the students have rated course curriculum ofOrganic Synthesis as Excellent
* 39**%** of the students have rated course curriculum ofOrganic Synthesis as outstanding
* 15% of the students have rated course curriculum ofOrganic Synthesis as good
* 1% of the students have rated course curriculum ofOrganic Synthesis as average

**Analysis of students feedback about teachers**

In the second part the students have given their feedback about different characteristics of teachers about preparedness for each class use of ICT tools, fair evaluation, punctuality, overall effectiveness, communication clarity of concepts, listening skills and time management as per student satisfaction level students have rated in 4 levels:

A-Average

G-Good

E-Excellent

O-Outstanding

**The feedback given by students of teachers in tabular and graphical form as follows**:

Table 3: Frequencies of grades given by students for performance of teachers

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 6 | 3 | 74 | 0 | 1 | 15 | 0 | 0 | 0 | 0 | 1 |
| G | 24 | 123 | 242 | 30 | 53 | 61 | 12 | 12 | 12 | 14 | 43 |
| E | 68 | 211 | 320 | 75 | 188 | 41 | 28 | 48 | 12 | 51 | 117 |
| O | 27 | 239 | 156 | 51 | 46 | 37 | 104 | 180 | 216 | 163 | 103 |
| Total | 125 | 576 | 792 | 156 | 288 | 154 | 144 | 240 | 240 | 228 | 264 |

Table 4: Percentage of grades given by students for performance of teachers

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 5 | 1 | 9 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| G | 19 | 21 | 31 | 19 | 18 | 40 | 8 | 5 | 5 | 6 | 16 |
| E | 54 | 37 | 40 | 48 | 65 | 27 | 19 | 20 | 5 | 22 | 44 |
| O | 22 | 41 | 20 | 33 | 16 | 24 | 72 | 75 | 90 | 71 | 39 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Fig. 2 : Graphical representation of grades given to teachers by students

**Teacher feedback: BioInorganic and Supramolecular Chemistry**

* 54% of the students have rated Teacher of BioInorganic and Supramolecular Chemistry as Excellent
* 22**%** of the students have rated Teacher of BioInorganic and Supramolecular Chemistry as outstanding
* 19% of the students have rated Teacher of BioInorganic and Supramolecular Chemistry as good
* 5% of the students have rated Teacher of BioInorganic and Supramolecular Chemistry as average

**Teacher feedback: Advanced Organic Chemistry**

* 41**%** of the students have rated Teacher of Advanced Organic Chemistry as Excellent
* 37**%** of the students have rated Teacher of Advanced Organic Chemistry as outstanding
* 21**%** of the students have rated Teacher of Advanced Organic Chemistry as good
* 1% of the students have rated Teacher of Advanced Organic Chemistry as average

**Teacher feedback: Structural Elucidation by Spectral Methods**

* 40**%** of the students have rated Teacher of Structural Elucidation by Spectral Methods as Excellent
* 20**%** of the students have rated Teacher of Structural Elucidation by Spectral Methods as outstanding
* 31% of the students have rated Teacher of Structural Elucidation by Spectral Methods as good
* 9% of the students have rated Teacher of Structural Elucidation by Spectral Methods as average

**Teacher feedback: Solid State Chemistry**

* 48**%** of the students have rated Teacher of Solid State Chemistry as Excellent
* 33**%** of the students have rated Teacher of Solid State Chemistry as outstanding
* 19% of the students have rated Teacher of Solid State Chemistry as good
* 0% of the students have rated Teacher of Solid State Chemistry as average

**Teacher feedback: Photochemistry,Free Radicals and Pericyclic Reactions**

* 65**%** of the students have rated Teacher of Photochemistry,Free Radicals and Pericyclic Reactions as Excellent
* 16**%** of the students have rated Teacher of Photochemistry,Free Radicals and Pericyclic Reactions as outstanding
* 18**%** of the students have rated Teacher of Photochemistry,Free Radicals and Pericyclic Reactions as good
* 0% of the students have rated Teacher of Photochemistry,Free Radicals and Pericyclic Reactions as average

**Teacher feedback: Thermodynamics**

* 27**%** of the students have rated Teacher of Thermodynamicsas Excellent
* 24**%** of the students have rated Teacher of Thermodynamicsas outstanding
* 40% of the students have rated Teacher of Thermodynamicsas good
* 10% of the students have rated Teacher of Thermodynamicsas average

**Teacher feedback:** Advanced Electrochemistry

* 19**%** of the students have rated Teacher of Advanced Electrochemistry as Excellent
* 72**%** of the students have rated Teacher of Advanced Electrochemistry as outstanding
* 8% of the students have rated Teacher of Advanced Electrochemistry as good
* 0% of the students have rated Teacher of Advanced Electrochemistry as average

**Teacher feedback:** Electroanalytical Techniques

* 20**%** of the students have rated Teacher of Electroanalytical Techniques as Excellent
* 75**%** of the students have rated Teacher of Electroanalytical Techniques as outstanding
* 5% of the students have rated Teacher of Electroanalytical Techniques as good
* 0% of the students have rated Teacher of Electroanalytical Techniques as average

**Teacher feedback:** Advanced Analytical Techniques-I

* 90**%** of the students have rated Teacher of Advanced Analytical Techniques-I as Excellent
* 5**%** of the students have rated Teacher of Advanced Analytical Techniques-I as outstanding
* 5% of the students have rated Teacher of Advanced Analytical Techniques-I as good
* 0% of the students have rated Teacher of Advanced Analytical Techniques-I as average

**Teacher feedback: Quality Assurance & Accreditation**

* 22**%** of the students have rated Teacher of Quality Assurance & Accreditation as Excellent
* 71**%** of the students have rated Teacher of Quality Assurance & Accreditation as outstanding
* 6% of the students have rated Teacher of Quality Assurance & Accreditation as good
* 0% of the students have rated Teacher of Quality Assurance & Accreditation as average

**Teacher feedback:Organic Synthesis**

* 44**%** of the students have rated Teacher of Organic Synthesis as Excellent
* 39**%** of the students have rated Teacher of Organic Synthesis as outstanding
* 16% of the students have rated Teacher of Organic Synthesis as good
* 0% of the students have rated Teacher of Organic Synthesis as average

**Analysis of feedbacks of students of Semester- I about Projects/Seminars/ Home assignments/ Tutorials:**

In part III students have given the feedback about Projects/Seminars/ Home assignments/ Tutorials as:

1. Project / Seminar topics are new and interesting
2. Learnt a lot from doing the project / Seminar? Home Assignment
3. The assignment was regularly given and checked
4. Sufficient number of practicals were conducted

as per student satisfaction level students have rated in 4 levels:

A-Average

G-Good

E-Excellent

O-Outstanding

Table 5: Subject wise frequency of grades given by students for project/seminar/assignments

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 3 | 0 | 16 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 1 |
| G | 5 | 37 | 77 | 14 | 17 | 23 | 7 | 4 | 4 | 4 | 18 |
| E | 18 | 72 | 112 | 28 | 63 | 14 | 13 | 14 | 6 | 19 | 36 |
| O | 17 | 83 | 59 | 9 | 16 | 13 | 28 | 62 | 70 | 53 | 33 |
| Total | 43 | 192 | 264 | 52 | 96 | 52 | 48 | 80 | 80 | 76 | 88 |

Table 6: Subject wise percentage of grades given by students for project/seminar/assignments

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | BioInorganic and Supramolecular Chemistry | Advanced Organic Chemistry | Structural Elucidation by Spectral Methods | Solid State Chemistry | Photochemistry,Free Radicals and Pericyclic Reactions | Thermodynamics | Advanced Electrochemistry | Electroanalytical Techniques | Advanced Analytical Techniques-I | Quality Assurance & Accreditation | Organic Synthesis |
| A | 7 | 0 | 6 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 1 |
| G | 12 | 19 | 29 | 27 | 18 | 44 | 15 | 5 | 5 | 5 | 20 |
| E | 42 | 38 | 42 | 54 | 66 | 27 | 27 | 18 | 8 | 25 | 41 |
| O | 40 | 43 | 22 | 17 | 17 | 25 | 58 | 78 | 88 | 70 | 38 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Fig. 3: Graphical representation of grades given by students for project/seminar/assignments

**Project/seminar/home assignment/tutorials Feedback: BioInorganic and Supramolecular Chemistry**

* 42% of the students have rated project/seminar/home assignment/tutorials of BioInorganic and Supramolecular Chemistry as Excellent
* 40**%** of the students have rated project/seminar/home assignment/tutorials of BioInorganic and Supramolecular Chemistry as outstanding
* 12% of the students have rated project/seminar/home assignment/tutorials of BioInorganic and Supramolecular Chemistry as good
* 7% of the students have rated project/seminar/home assignment/tutorials of BioInorganic and Supramolecular Chemistry as average

**Project/seminar/home assignment/tutorials Feedback: Advanced Organic Chemistry**

* 38**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Organic Chemistry as Excellent
* 43**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Organic Chemistry as outstanding
* 19**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Organic Chemistry as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Advanced Organic Chemistry as average

**Project/seminar/home assignment/tutorials Feedback: Structural Elucidation by Spectral Methods**

* 42**%** of the students have rated project/seminar/home assignment/tutorials of Structural Elucidation by Spectral Methods as Excellent
* 22**%** of the students have rated project/seminar/home assignment/tutorials of Structural Elucidation by Spectral Methods as outstanding
* 29% of the students have rated project/seminar/home assignment/tutorials of Structural Elucidation by Spectral Methods as good
* 6% of the students have rated project/seminar/home assignment/tutorials of Structural Elucidation by Spectral Methods as average

**Project/seminar/home assignment/tutorials Feedback: Solid State Chemistry**

* 54**%** of the students have rated project/seminar/home assignment/tutorials of Solid State Chemistry as Excellent
* 17**%** of the students have rated project/seminar/home assignment/tutorials of Solid State Chemistry as outstanding
* 27% of the students have rated project/seminar/home assignment/tutorials of Solid State Chemistry as good
* 2% of the students have rated project/seminar/home assignment/tutorials of Solid State Chemistry as average

**Project/seminar/home assignment/tutorials Feedback: Photochemistry,Free Radicals and Pericyclic Reactions**

* 66**%** of the students have rated project/seminar/home assignment/tutorials of Photochemistry,Free Radicals and Pericyclic Reactions as Excellent
* 17**%** of the students have rated project/seminar/home assignment/tutorials of Photochemistry,Free Radicals and Pericyclic Reactions as outstanding
* 18**%** of the students have rated project/seminar/home assignment/tutorials of Photochemistry,Free Radicals and Pericyclic Reactions as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Photochemistry,Free Radicals and Pericyclic Reactions as average

**Project/seminar/home assignment/tutorials Feedback: Thermodynamics**

* 27**%** of the students have rated project/seminar/home assignment/tutorials of Thermodynamics as Excellent
* 25**%** of the students have rated project/seminar/home assignment/tutorials of Thermodynamics as outstanding
* 44% of the students have rated project/seminar/home assignment/tutorials of Thermodynamics as good
* 4% of the students have rated project/seminar/home assignment/tutorials of Thermodynamics as average

**Project/seminar/home assignment/tutorials Feedback:** Advanced Electrochemistry

* 58**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Electrochemistry as Excellent
* 27**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Electrochemistry as outstanding
* 15% of the students have rated project/seminar/home assignment/tutorials of Advanced Electrochemistry as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Advanced Electrochemistry as average

**Project/seminar/home assignment/tutorials Feedback:** Electroanalytical Techniques

* 78**%** of the students have rated project/seminar/home assignment/tutorials of Electroanalytical Techniques as Excellent
* 18**%** of the students have rated project/seminar/home assignment/tutorials of Electroanalytical Techniques as outstanding
* 5% of the students have rated project/seminar/home assignment/tutorials of Electroanalytical Techniques as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Electroanalytical Techniques as average

**Project/seminar/home assignment/tutorials Feedback:** Advanced Analytical Techniques-I

* 8**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Analytical Techniques-I as Excellent
* 88**%** of the students have rated project/seminar/home assignment/tutorials of Advanced Analytical Techniques-I as outstanding
* 5% of the students have rated project/seminar/home assignment/tutorials of Advanced Analytical Techniques-I as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Advanced Analytical Techniques-I as average

**Project/seminar/home assignment/tutorials Feedback: Quality Assurance & Accreditation**

* 25**%** of the students have rated project/seminar/home assignment/tutorials of Quality Assurance & Accreditation as Excellent
* 70**%** of the students have rated project/seminar/home assignment/tutorials of Quality Assurance & Accreditation as outstanding
* 5% of the students have rated project/seminar/home assignment/tutorials of Quality Assurance & Accreditation as good
* 0% of the students have rated project/seminar/home assignment/tutorials of Quality Assurance & Accreditation as average

**Project/seminar/home assignment/tutorials Feedback:Organic Synthesis**

* 41**%** of the students have rated project/seminar/home assignment/tutorials of Organic Synthesis as Excellent
* 38**%** of the students have rated project/seminar/home assignment/tutorials of Organic Synthesis as outstanding
* 20% of the students have rated project/seminar/home assignment/tutorials of Organic Synthesis as good
* 1% of the students have rated project/seminar/home assignment/tutorials of Organic Synthesis as average

**Criterion 5: Infrastructure**

**The feedback of students about infrastructure is presented in tabular and graphical form as follows**:

Table 5: Infrastructure feedback summary

|  |  |  |
| --- | --- | --- |
| Grade | Frequency | Percent |
| A | 188 | 18 |
| G | 225 | 22 |
| E | 393 | 38 |
| O | 216 | 21 |
| Total | 1022 | 100 |

* 38**%** of the students have rated Infrastructure facilities in the department as Excellent
* 21**%** of the students have rated Infrastructure facilities in the department as outstanding
* 22% of the students have rated Infrastructure facilities in the department as good
* 18% of the students have rated Infrastructure facilities in the department as average