**Master of Science Program in Chemistry (2015)**

**Name of Degree:** Master of Science (Chemistry**)**

**Abbreviation:** M.Sc. (Chemistry)

**Admission Requirements**

Plan A Type A 1:

 Hold a bachelor's degree in chemistry or related fields with a GPA of at least 3.25 or hold a bachelor's degree in science or related fields with a GPA of at least 3.50

Plan A Type A 2:

Hold a bachelor's degree in chemistry or related fields with a GPA of at least 2.50

**Curriculum**

**Total Credits**

 Plan A Type A 1 36 Credits

Plan A Type A 2 36 Credits

**Curriculum Structure** **Type A 1** **Type A 2**

Required Courses (\*) 2 (Non credit) 11 Credits

Elective Courses (\*\*) - 13 Credits

Thesis 36 12 Credits

**Total 36 36 Credits**

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| --- | --- |
| **First Year, 1st Semester** | **Number of Credit** |
| **Course Number** | **Course Title** | **Plan A Type A 1** | **Plan A Type A 2** |
| Analytical | Inorganic | Physical |
| 312 711\* | Advanced Organic Chemistry | - | select 3 out of 5 courses, 9 credits |
| 312 721\*  | Advanced Inorganic Chemistry | - |
| 312 731\*  | Advanced Physical Chemistry | - |
| 312 741\*  | Instrumental Methods of Analysis | - |
| 312 751\*  | Structures and Properties of Polymer | - |
| 312 823\*\*  | Special Topics in Advanced Inorganic Chemistry | - | - | 2 | - |
| 312 826\*\* | Chemistry of Ceramics | - | - | 2 | - |
| 312 832\*\* | Group Theory and Molecular Structure | - | - | - | 2 |
| 312 836\*\* | Computational Chemistry | - | - | - | 2 |
| 312 842\*\*  | Modern Techniques in Atomic Spectroscopy | - | 2 | - | - |
| 312 843\*\* | Advanced Chromatography | - | 2 | - | - |
| 312 891 | Seminar I | 1 (Non Credit) | - | - | - |
| 312 898 | Thesis | 9 | - | - | - |
| **Total credits** | 9 | 13 | 13 | 13 |
| **Cumulative credits** | 9 | 13 | 13 | 13 |

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| **First Year, 2nd Semester** | **Number of Credit** |
| **Course Number** | **Course Title** | **Plan A Type A 1** | **Plan A Type A 2** |
| Analytical | Inorganic | Physical |
| 312 822\*\*  | Physical Methods in Inorganic Chemistry | - | - | 2 | - |
| 312 824\*\*  | Bioinorganic Chemistry | - | - | 2 | - |
| 312 825\*\*  | Organometallic Chemistry | - | - | 2 | - |
| 312 827\*\*  | X-ray Crystallography | - | - | 2 | - |
| 312 828\*\*  | Hybrid Materials and Nanocomposites | - | - | 2 | - |
| 312 831\*\* | Physico-Chemical Techniques | - | - | - | 2 |
| 312 833\*\* | Statistical Thermodynamics and Photochemistry | - | - | - | 2 |
| 312 835\*\* | Surface Chemistry and Catalysis | - | - | - | 2 |
| 312 838\*\* | Topics of Current Interest in Physical Chemistry | - | - | - | 2 |
| 312 839\*\* | Special Topics in Advanced Physical Chemistry | - | - | - | 2 |
| 312 844\*\* | Advanced Flow-based Analysis | - | 2 | - | - |
| 312 845\*\* | Pollutants in Environmental Chemistry | - | 2 | - | - |
| 312 846\*\* | Thermal Analysis and Applications | - | 2 | - | - |
| 312 847\*\* | Advanced Electroanalytical Techniques | - | 2 | - | - |
| 312 849\*\* | Current Topics of Interest in Analytical Chemistry  | - | 2 | - | - |
| 312 891 | Seminar I | - | 1 | 1 | 1 |
| 312 892 | Seminar II | 1 (Non Credit) | - | - | - |
| 312 898 | Thesis | 9 | - | - | - |
| **Total credits** | 9 | 11 (count 10) | 11(count 10) | 11(count 10) |
| **Cumulative credits** | 18 | 23 | 23 | 23 |

|  |  |
| --- | --- |
| **Second Year, 1st Semester** | **Number of Credit** |
| **Course Number** | **Course Title** | **Plan A Type A 1** | **Plan A Type A 2** |
| 312 892 | Seminar II | - | 1 |
| 312 898 | Thesis | 9 | - |
| 312 899 | Thesis | - | 8 |
| **Total credits** | 9 | 9 |
| **Cumulative credits** | 27 | 32 |

|  |  |
| --- | --- |
| **Second Year, 2st Semester** | **Number of Credit** |
| **Course Number** | **Course Title** | **Plan A Type A 1** | **Plan A Type A 2** |
| 312 898 | Thesis | 9 | - |
| 312 899 | Thesis | - | 4 |
| **Total credits** | 9 | 4 |
| **Cumulative credits** | 36 | 36 |

**Program Committee**

1. Assoc. Prof. Dr. Supalux Srijaranai

2. Prof. Dr. Sujittra Youngme

3. Asst. Prof. Dr. Khatcharin Siriwong

4. Asst. Prof. Dr. Choosak Poonsawat

5. Asst. Prof. Dr. Rodjana Burakham