

# College of Engineering

2023 FALL

BACHELOR



MASTER



PH.D



| COURSE NO. & NAME                        | STUDY LEVEL | FIELD                   |
|--|-------------|-------------------------|
| 1922 English for General Engineering (a) | B           | Science and Engineering |
| 1923 English for General Engineering (b) | B           | Science and Engineering |

## Department of Civil Engineering









| COURSE NO. & NAME  | STUDY LEVEL | FIELD                   |
|--|-------------|-------------------------|
| 2312 Engineering Mathematics (I) *                               | B           | Science and Engineering |
| 2368 Mechanics of Materials*                                     | B           | Science and Engineering |
| 2369 Mechanics of Materials*                                     | B           | Science and Engineering |
| 3094 Structural Theory (II)*                                     | B           | Science and Engineering |
| 3306 Fluid Mechanics (II)*                                       | B           | Science and Engineering |
| 6749 Numerical Modeling of Physical Systems in Civil Engineering | M P         | Science and Engineering |
| 6753 Groundwater and Seepage*                                    | M P         | Science and Engineering |
| 6766 Signal Processing and Linear System Analysis                | M P         | Science and Engineering |

# Undergraduate Program of Intellectual Creativity Engineering









| COURSE NO. & NAME  | STUDY LEVEL | FIELD                   |
|--|-------------|-------------------------|
| <b>1304</b> Practical Applications of Artificial Intelligence* | B           | Science and Engineering |
| <b>2226</b> Programming Languages                              | B           | Science and Engineering |
| <b>2231</b> Introduction to Image Processing                   | B           | Science and Engineering |
| <b>2276</b> Basic English for Science and Technology           | B           | Science and Engineering |

## Department of Mechanical Engineering

| COURSE NO. & NAME  | STUDY LEVEL | FIELD                   |
|--|-------------|-------------------------|
| <b>1289</b> Statics (Class a)*                             | B           | Science and Engineering |
| <b>1290</b> Statics (Class b)*                             | B           | Science and Engineering |
| <b>2296</b> Thermodynamics (Class a)*                      | B           | Science and Engineering |
| <b>2297</b> Thermodynamics (Class b)*                      | B           | Science and Engineering |
| <b>2298</b> Engineering Mathematics (I)*                   | B           | Science and Engineering |
| <b>2299</b> Engineering Mathematics (I)                    | B           | Science and Engineering |
| <b>2306</b> Biology for Engineers and Computer Scientists* | B           | Science and Engineering |
| <b>2349</b> Materials Engineering (Class a)                | B           | Science and Engineering |
| <b>2350</b> Materials Engineering (Class b)                | B           | Science and Engineering |
| <b>3216</b> System Dynamics                                | B           | Science and Engineering |
| <b>3301</b> Mechanical Engineering Experimentation(II)     | B           | Science and Engineering |
| <b>3365</b> Engineering Mathematics (III)                  | B           | Science and Engineering |

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|--|---|-------------------------|
| <b>5116</b> Advanced Thermodynamics*             |   | Science and Engineering |
| <b>5117</b> Precision Fabrication                |  | Science and Engineering |
| <b>5125</b> Principles of Optics                 |  | Science and Engineering |
| <b>5133</b> Analysis of Mechanical Manufacturing |  | Science and Engineering |
| <b>5154</b> Data Analysis and Machine Learning   |  | Science and Engineering |
| <b>5155</b> Bio Microelectromechanical Systems*  |  | Science and Engineering |
| <b>6751</b> Seminar (I)                          |  | Science and Engineering |
| <b>8222</b> Seminar(III)                         |  | Science and Engineering |

## Department of Environmental Engineering

| COURSE NO. & NAME   | STUDY LEVEL   | FIELD                                |
|---|---|--------------------------------------|
| <b>1300</b> Introduction to Environmental Science*                          |  | Science and Engineering              |
| <b>2324</b> Microbiology*   |  | Agricultural and Biological Sciences |
| <b>3308</b> Green Technology and Sustainable Development                    |  | Science and Engineering              |
| <b>3394</b> Wastewater Analysis   |  | Agricultural and Biological Sciences |
| <b>6788</b> Environmental Toxicology*                                       |  | Science and Engineering              |
| <b>6790</b> Advanced Oxidation Processes for Water and Wastewater Treatment |  | Science and Engineering              |
| <b>6792</b> Physical Principle in Environmental Engineering*                |  | Science and Engineering              |
| <b>6794</b> Biological Principle in Environmental Engineering*              |  | Science and Engineering              |

## Department of Chemical Engineering

| COURSE NO. & NAME                               | STUDY LEVEL | FIELD                   |
|---|-------------|-------------------------|
| 2320 Material and Energy Balances*              | B           | Science and Engineering |
| 5110 An Introduction of Thin film Solar Cell*   | B M         | Science and Engineering |
| 5165 Bioprocess Design and Its Applications     | B M         | Science and Engineering |
| 6848 Advanced Kinetics in Chemical Engineering* | M           | Science and Engineering |
| 6850 Advanced Transport Phenomena*              | M           | Science and Engineering |

## Department of Materials Science and Engineering

| COURSE NO. & NAME            | STUDY LEVEL | FIELD                   |
|------------------------------|-------------|-------------------------|
| 2344 Mechanics of Materials* | B           | Science and Engineering |

## Graduate Institute of Precision Engineering

| COURSE NO. & NAME                        | STUDY LEVEL | FIELD                   |
|--|-------------|-------------------------|
| 6810 Nano Fabrication Technology*        | M           | Science and Engineering |
| 6873 Microfabrication Technology*        | M           | Science and Engineering |
| 6877 Finite Element for Micro System*    | M           | Science and Engineering |
| 6878 Micro-Mechanical Machining Process* | M           | Science and Engineering |

# Graduate Institute of Biomedical Engineering

| COURSE NO. & NAME  | STUDY LEVEL | FIELD                                |
|--|-------------|--------------------------------------|
| 6884 Bio-Organic Chemistry*  | M           | Agricultural and Biological Sciences |
| 6885 Medical Electronics*  | M           | Agricultural and Biological Sciences |
| 6886 Introduction to Biomedical Engineering*                                 | M           | Agricultural and Biological Sciences |
| 6887 Molecular Cell Biology*   | M           | Agricultural and Biological Sciences |
| 6888 Theranostics (I)*   | M           | Agricultural and Biological Sciences |
| 6889 Modern Optical Spectroscopy: With Exercises And Examples From Biophysi* | M           | Agricultural and Biological Sciences |
| 6890 Seminar (I)*  | M           | Agricultural and Biological Sciences |
| 7405 Seminar (II)*   | M           | Agricultural and Biological Sciences |
| 8206 Seminar(III)*   | P           | Agricultural and Biological Sciences |
| 8208 Basic Anatomy and Physiology (I)*                                       | P           | Agricultural and Biological Sciences |
| 8218 Biomaterials and Angiogenesis   | P           | Agricultural and Biological Sciences |
| 9186 Seminar(IV)*  | P           | Agricultural and Biological Sciences |

\* EMI ( English as a Medium of Instruction )