

Course Structure for M.A. Program

Graduate Institute of AI Interdisciplinary Applied Technology

National Taiwan Normal University

| Adaptive to Class of | Required Credit(s) | Elective Credit(s) | Free Elective Credit(s) | Minimum Total Credits for Graduation |
|----------------------|--------------------|--------------------|-------------------------|--------------------------------------|
| 112                  | 3.0                | 15.0               | 6.0                     | 24.0                                 |

Note: The first alphabet "E" on the course name refers to the course in English as a medium of instruction

I. Required Courses: 3.0 credits are required

| Course Code | Course Name | Credit(s) | Credit Unit  |                   | Note   |
|-------------|-------------|-----------|--------------|-------------------|--|
|             |             |           | Lecture Hour | Lab/Practice Hour |  |
| C0C8001     | 1 E Seminar | 1.0       | 0.0          | 2.0               | This course must be retaken with a passing score for 3 times |

II. Elective Courses: 15.0 credits are required

| Course Code | Course Name                           | Credit(s) | Credit Unit  |                   | Note |
|-------------|---------------------------------------|-----------|--------------|-------------------|------|
|             |                                       |           | Lecture Hour | Lab/Practice Hour |      |
| AIC8001     | 1 E Computer Vision                   | 3.0       | 3.0          | 0.0               |      |
| AIC8002     | 2 Digital Still Camera Design         | 3.0       | 3.0          | 0.0               |      |
| CSC0001     | 3 Data Mining                         | 3.0       | 3.0          | 0.0               |      |
| CSC0012     | 4 Speech Processing                   | 3.0       | 3.0          | 0.0               |      |
| CSC0015     | 5 Advanced Computer Architectures     | 3.0       | 3.0          | 0.0               |      |
| CSC0023     | 6 Natural Language Processing         | 3.0       | 3.0          | 0.0               |      |
| CSC0039     | 7 Machine Learning                    | 3.0       | 3.0          | 0.0               |      |
| CSC0049     | 8 Advanced Computer Graphics          | 3.0       | 3.0          | 0.0               |      |
| CSC0072     | 9 Information Security                | 3.0       | 3.0          | 0.0               |      |
| CSC9004     | 10 Introduction to Internet of Things | 3.0       | 3.0          | 0.0               |      |
| CSC9005     | 11 E Data Visualization               | 3.0       | 3.0          | 0.0               |      |
| AEC8018     | 12 E Machine Learning                 | 3.0       | 3.0          | 0.0               |      |
| AEC8058     | 13 E Deep Learning                    | 3.0       | 3.0          | 0.0               |      |
| AEC8059     | 14 E Reinforcement Learning           | 3.0       | 3.0          | 0.0               |      |
| AIC8003     | 15 Advanced Image Processing          | 3.0       | 3.0          | 0.0               |      |
| AIC8004     | 16 Artificial Neural Network          | 3.0       | 3.0          | 0.0               |      |
| AIC8005     | 17 Parallel Computing                 | 3.0       | 3.0          | 0.0               |      |
| AIC8010     | 18 E Evolutionary Computation         | 3.0       | 3.0          | 0.0               |      |
| AIC8009     | 19 DSP Architecture Design            | 3.0       | 3.0          | 0.0               |      |

III. Free Elective Credits: 6.0 credits are required