Artificial Intelligence

Course Title: Artificial Intelligence					
Course Code: CIE62019	**Student Workload:** 8.50 Hours/ Weeks	**Credits:** 3 Credits (4.50 ECTS)	**Semester:** 4th Semester	**Frequency:** Even Semester	**Duration:** 16 Weeks/ Semester (*Lecture*: 14 weeks; *Midterm assessment*: 1 week; *Final assessment*: 1 week)

1	**Types of Courses:** Content Knowledge Course	**Contact Hours:** *Lecturing*: 2.50 Hours/ Week; *Practical Work*: 0.00 Hours/ Week	**Independent Study:** *Self-study:* 3.00 Hours/ Week; *Structured Assignment*: 3.00 Hours/ Week	**Class Size:** 40 Students
2	**Prerequisites for Participation** (If Applicable)**:** Computational Mathematics			
3	**Learning Outcomes:** 1. M1: Able to understand artificial intelligence conceptually and its role in the instructional program transformation and innovation (ILO-1) (0,2) 2. M2: Able to build algorithms for solving artificial intelligence problems using various techniques (ILO-7) (0,3) 3. M3: Able to make solutions related to educational quality domain problems through various artificial intelligence techniques under the system thinking or design thinking paradigm (ILO-8) (0,3); (ILO-10) (0,2)			
4	**Subject aims/Content:** At the end of the course, students are expected: 1. L1: Able to explain the basic concepts, terminology, and processes of artificial intelligence and be able to explain the fields of application (M1) 2. L2: Able to use searching and reasoning techniques to solve artificial intelligence (M2) problems 3. L3: Able to use probability and optimization techniques to solve artificial intelligence (M2) problems 4. L4: Able to build algorithmic solutions for artificial intelligence problems using Learning techniques in education (M3)			
5	**Teaching Methods:** Lecturing, Group Discussion, Case-Based Learning			
6	**Assessment Methods:** Multiple-choice, essay, product assessment, anecdotal record/logbook			
7	**This Course is Used in The Following Study Programme/s as Well:** -			
8	**Responsibility for Course:** Satrio Hadi Wijoyo, S.Si., S.Pd., M.Kom. Satrio Agung Wicaksono, S.Kom., M.Kom. Dr.Eng. Fitra Abdurrachman Bachtiar, S.T., M.Eng.			
9	**Other Information:** Bibliography: 1. Russell, S. J., & Norvig, P. (2016). Artificial intelligence: a modern approach. Malaysia. 2. Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial intelligence in education. Boston: Center for Curriculum Redesign.Sommerville, Ian, "Software Engineering". Edisi ke-9 tahun 2011. (The latest (10th) edition was published in April 2015) 3. Pedro, F., Subosa, M., Rivas, A., & Valverde, P. (2019). Artificial intelligence in education: Challenges and opportunities for sustainable development. 4. Roll, I., & Wylie, R. (2016). Evolution and revolution in artificial intelligence in education. International Journal of Artificial Intelligence in Education, 26(2), 582-599.			