Ergonomics

DESCRIPTION OF COURSE UNIT

Program Studi Sarjana (S1) Desain Produk

Bachelor of Industrial Design (BOID)

2018-2023

Gedung Desain Produk ITS Jl. Despro No.1 Kampus ITS Sukolilo Surabaya. 60111
Hotline Call official : +623115931147 email : despro@its.ac.id

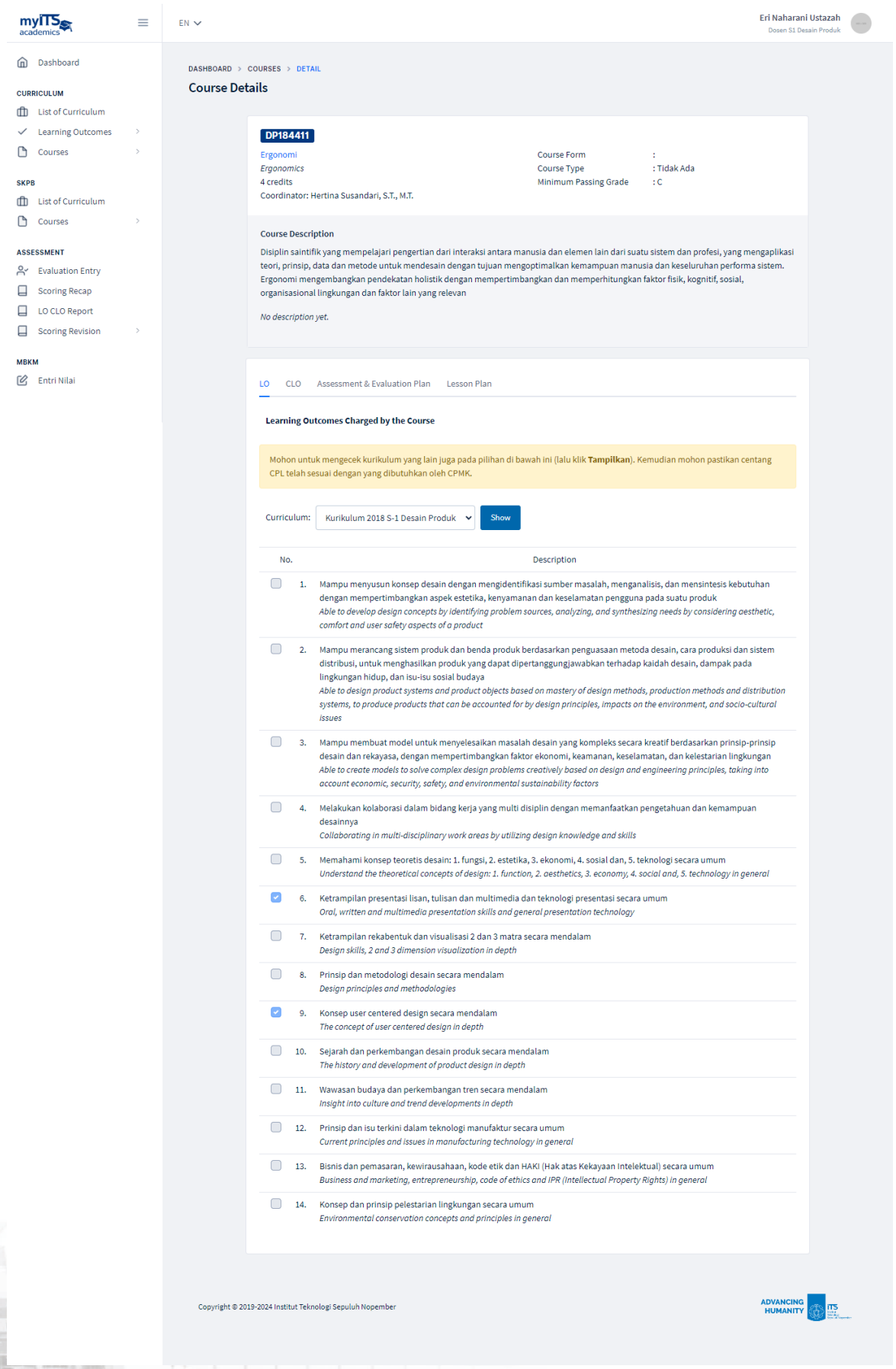
Description of Course Unit
according to the ECTS User's Guide 2015

Course unit title	Ergonomics
Course unit code	DP184411
Type of course unit	Compulsory
Level of course unit	First cycle Bachelor
Year of study when the course unit is delivered	2nd year
Semester/trimester when the course unit is delivered	4th semester
Number of ECTS credits allocated	6,4 ECTS Credits
Name of lecturer	Hertina Susandari, S.T., M.T.
Learning outcomes of the course unit	1) Students can implement ergonomic aspects in designing complex physical environments: workstations, cabins, etc. 2) Students can conduct ergonomic experiments in design research. 3) Students can create user interface plans for products.
Mode of delivery (face-to-face, distance learning)	face-to-face
Prerequisites and co-requisites (if applicable)	-
Course content	Ergonomics is a scientific discipline that studies the understanding of interactions between humans and other elements of a system and a profession that applies theory, principles, data, and methods to design with the goal of optimizing human capabilities and the overall performance of the system. Ergonomics develops a holistic approach by considering and accounting for physical, cognitive, social, organizational, environmental factors, and other relevant factors. 1) Scope of Ergonomics: • Physical Ergonomics: anatomy and body posture of humans, anthropometry, biomechanics, and human physical characteristics. • Cognitive Ergonomics: perception, memory, thinking, humanmachine interaction, reliability, work fatigue, and usability testing. • Organizational Ergonomics: participatory design.

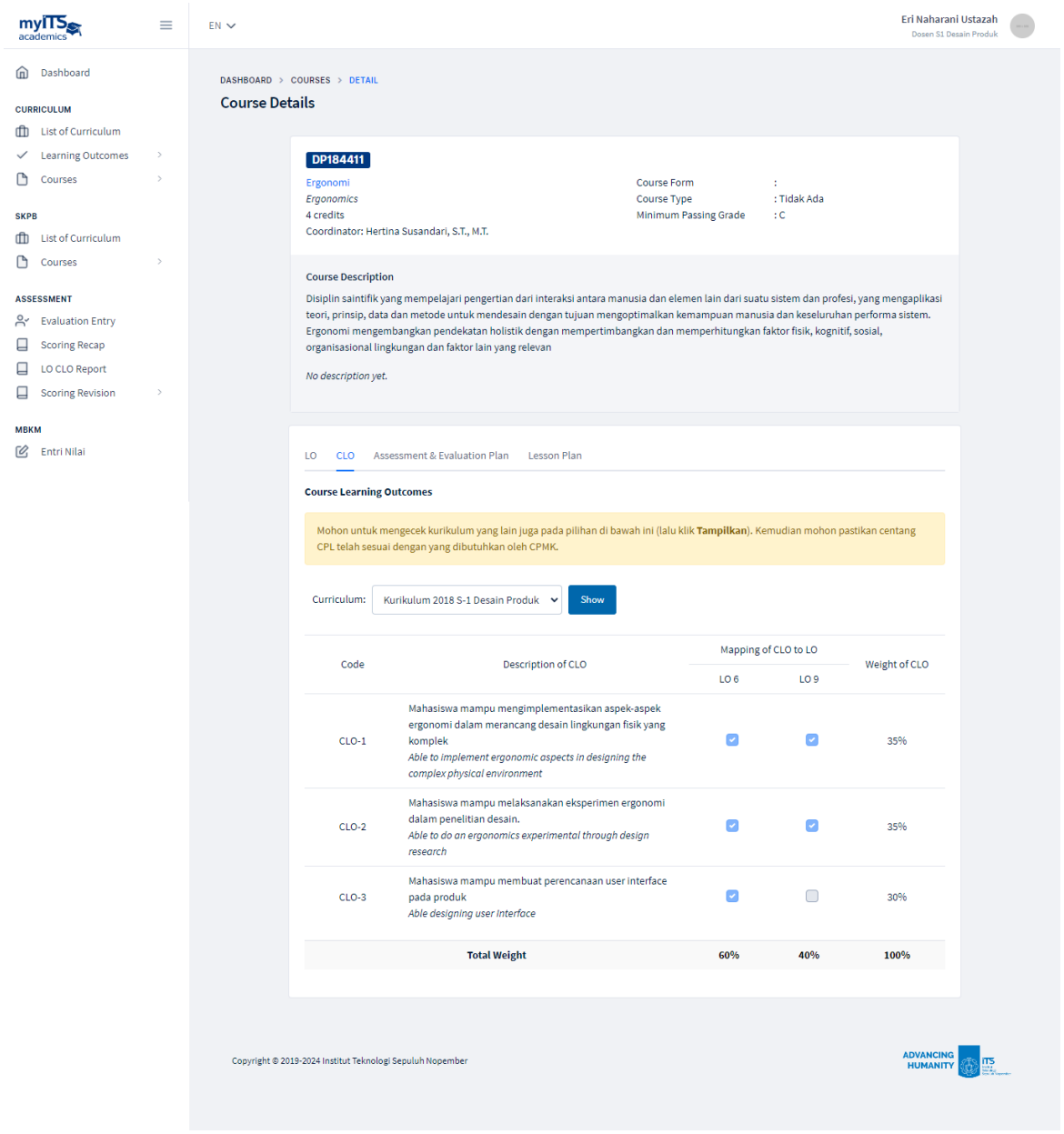
	2) Elements of Ergonomics: • Characteristics of human perception (touch, sight, taste, smell, hearing) and their application in designing work environments. • Anthropometry and its application to design subjects (design of workstations, public facilities, etc.). • Biomechanics and its application to design subjects (design of hand tools, carrying aids, etc.)
Recommended or required reading and other learning resources/tools	• Grandjean E, Fitting the Task to The Man ;London:Taylor & Francis Ltd,1982 • Wesley E. Woodson, Human Factor Design Handbook ;NewYork:McGraw Hill, 1981. • Dumas, J.S., Redish, J.C., A Practical Guide to Usability Testing. Ablex, Norwood, NJ. 1994 • Preece, Jennifer;Rogers, Yvonne;Sharp, Helen.Interaction Design: beyond human-computer Interaction.New York: John Wiley&Sons.Inc. (2002) • Saffer, Dan. Designing for interaction : creating smart applications and clever device. USA : AIGA Design Press, 2007 • Han,Sung H; Yun, Myung Hwan; Kwahk, Jiyoung; Hong, Sang W.2001. “Usability of consumer electronic products”. International Journal of Industrial Ergonomic. Vol.28, page 143-151
Planned learning activities and teaching methods	Study Case; Team Based Learning
Language of instruction	Indonesia
Assessment methods and criteria	Assignment, Project, Midterm Evaluation and Final Evaluation

© FIBAA – December 2020

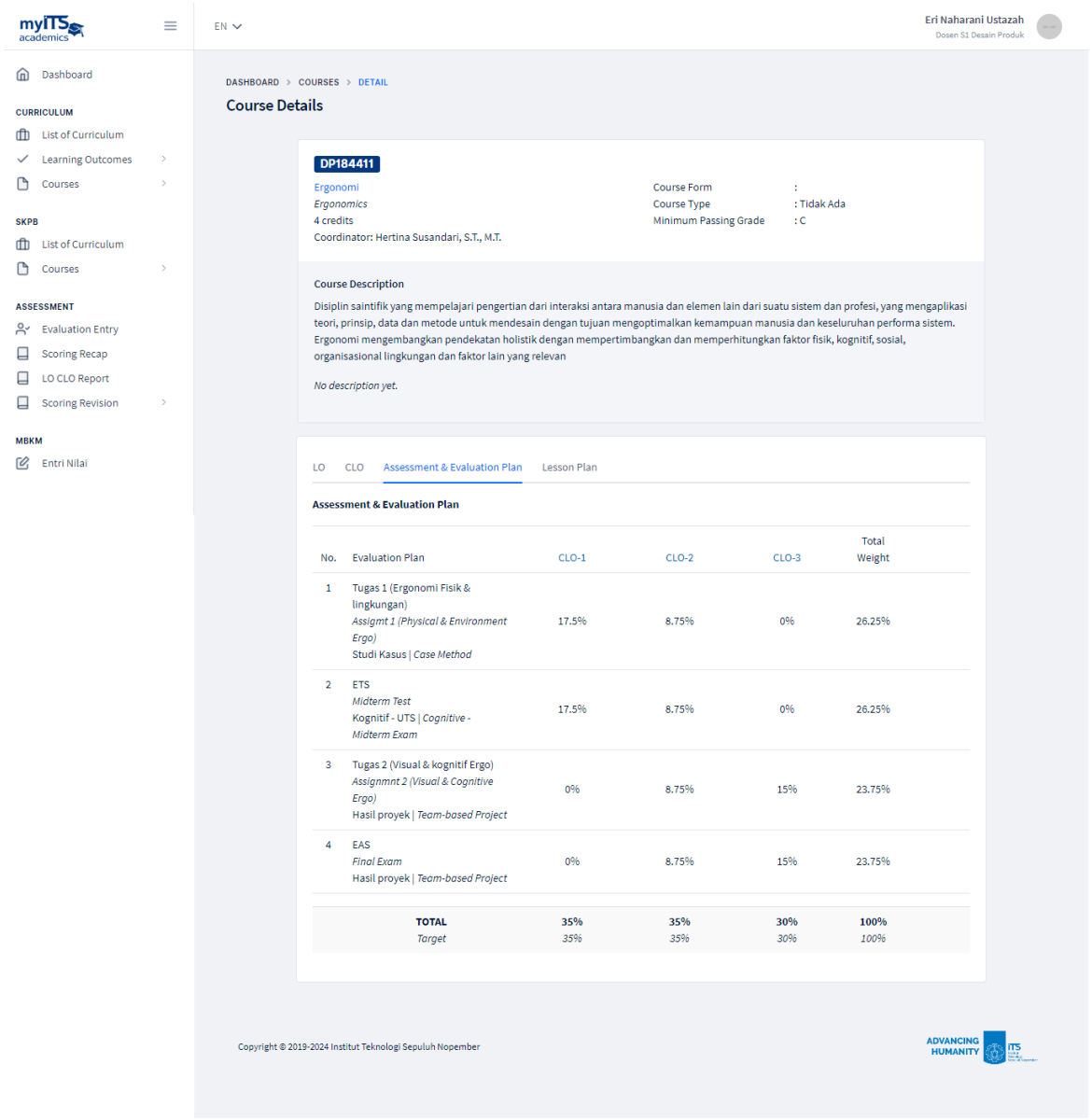
Capture My ITS ACADEMIC

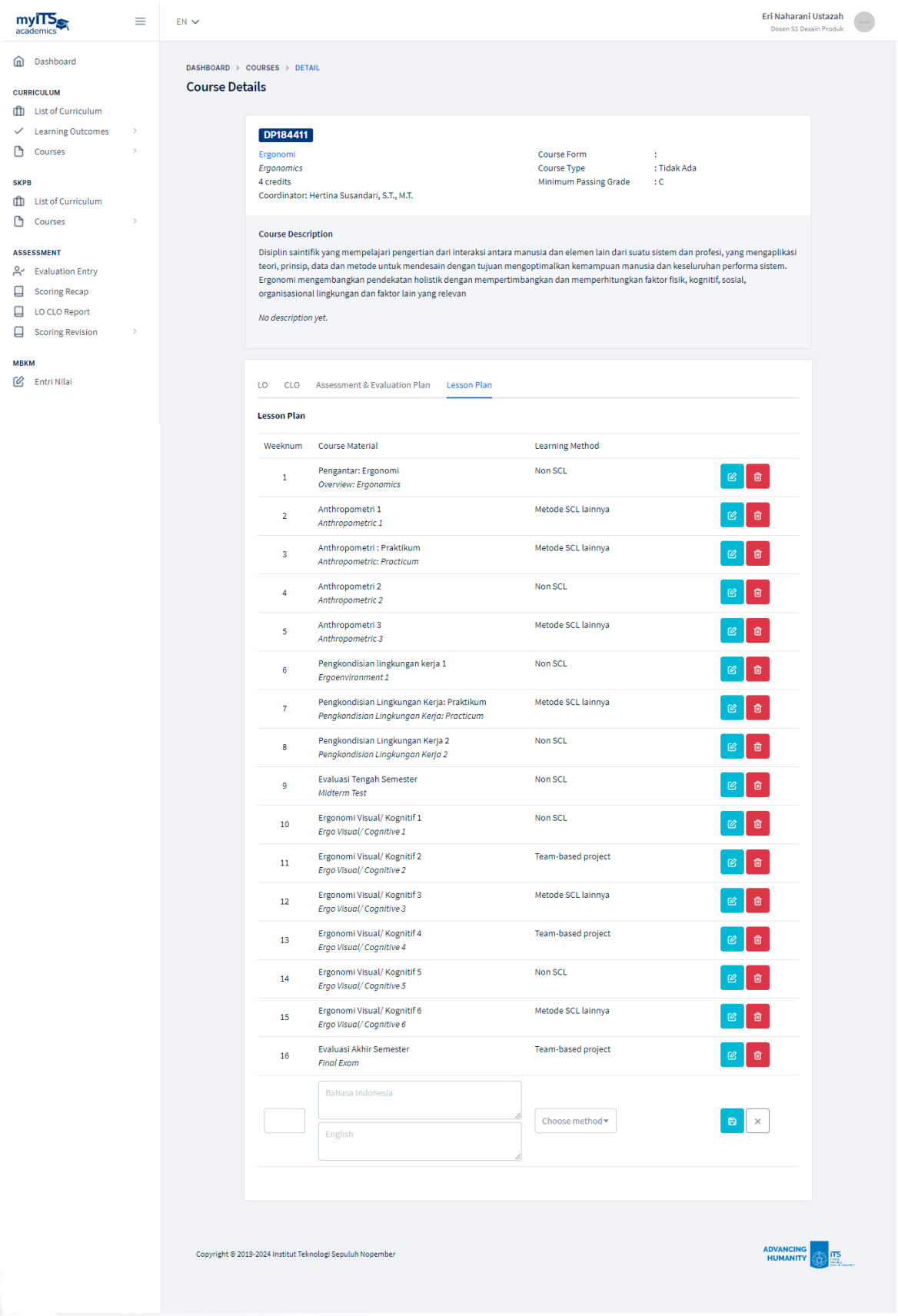


Gedung Desain Produk ITS Jl. Despro No.1 Kampus ITS Sukolilo Surabaya. 60111
Hotline Call official : +62315931147 email : despro@its.ac.id



Gedung Desain Produk ITS Jl. Despro No.1 Kampus ITS Sukolilo Surabaya. 60111
Hotline Call official : +62315931147 email : despro@its.ac.id


myITS academics
EN
Eri Naharani Ustazah
Dosen S1 Desain Produk
Dashboard
CURRICULUM
List of Curriculum
Learning Outcomes
Courses
SKPB
List of Curriculum
Courses
ASSESSMENT
Evaluation Entry
Scoring Recap
LO CLO Report
Scoring Revision
MBKM
Entri Nilai
DASHBOARD > COURSES > DETAIL
Course Details
DP184411
Ergonomi
Ergonomics
4 credits
Coordinator: Hertina Susandari, S.T., M.T.
Course Form :
Course Type : Tidak Ada
Minimum Passing Grade : C
Course Description
Disiplin saintifik yang mempelajari pengertian dari interaksi antara manusia dan elemen lain dari suatu sistem dan profesi, yang mengaplikasi teori, prinsip, data dan metode untuk mendesain dengan tujuan mengoptimalkan kemampuan manusia dan keseluruhan performa sistem. Ergonomi mengembangkan pendekatan holistik dengan mempertimbangkan dan memperhitungkan faktor fisik, kognitif, sosial, organisasional lingkungan dan faktor lain yang relevan
No description yet.
LO CLO Assessment & Evaluation Plan Lesson Plan
Assessment & Evaluation Plan
No. Evaluation Plan CLO-1 CLO-2 CLO-3 Total Weight
1 Tugas 1 (Ergonomi Fisik & lingkungan) Assigmt 1 (Physical & Environment Ergo) Studi Kasus | Case Method 17.5% 8.75% 0% 26.25%
2 ETS Midterm Test Kognitif - UTS | Cognitive - Midterm Exam 17.5% 8.75% 0% 26.25%
3 Tugas 2 (Visual & kognitif Ergo) Assignmnt 2 (Visual & Cognitive Ergo) Hasil proyek | Team-based Project 0% 8.75% 15% 23.75%
4 EAS Final Exam Hasil proyek | Team-based Project 0% 8.75% 15% 23.75%
TOTAL 35% 35% 30% 100%
Target 35% 35% 30% 100%
Copyright © 2019-2024 Institut Teknologi Sepuluh Nopember
ADVANCING HUMANITY ITS



Gedung Desain Produk ITS Jl. Despro No.1 Kampus ITS Sukolilo Surabaya. 60111
Hotline Call official : +62315931147 email : despro@its.ac.id