Module Descriptions

Module designation	*8420302143*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*Abdul Kholiq, M.Si.*
Language	Indonesian
Relation to curriculum	*Compulsory / elective / specialisation*
Teaching methods	*Lecture, Lesson, Discussion, case study lab works, project, seminar*
Workload (incl. contact hours, self-study hours)	*(Estimated) Total workload: 136 work hours per-semester* *Contact hours (please specify whether lecture, exercise, laboratory session, etc.): 40 work hours per-semester* *Private study including examination preparation, specified in hours: 94 work hours per-semester*
Credit points	3.18 ECTS
Required and recommended prerequisites for joining the module	-

Module objectives/intended learning outcomes	*Key question: what learning outcomes should students attain in the module?*
	E.g. in terms of:
	
	- *Attitude: -*
	- *Competences -*
	- *Knowledge:*
	   a) *Masters the pedagogical knowledge in planning, teaching, and evaluating physics learning as well as resource management in organizing classes, physics laboratories and educational institutions.*
	- *Skills:*
	   a) *Develops logical, critical, systematic and creative thinking in carrying out specific work in the field of expertise and in accordance with the work competency standards in the relevant field.*
	   b) *Conducts physics education research in the form of studies and evaluations of physics learning with a quantitative and/or qualitative approach in the form of oral and academic writing effectively.*
	   c) *Masters the principles of developing physics learning media based on science, contextual technology, especially ICT (information and communication technology), and the surrounding environment.*

Content	*This course is a course that designs and develops the use of computers to present and integrate text, sound, images, animation, audio, and video with tools and links so that users can navigate, interact, create, and communicate, which is often used in the field of informatics..*
Examination forms	*project*
Study and examination requirements	***Requirements for successfully passing the module:*** a) *Minimum attendance of 75%* b) *Minimum score of 55 out of 100*
Reading list	a) *Mulyana I, Prajuhana A P, Iqbal M S, 2019, desain Grafis dan Multimedia: Teori dan Implementasi, Bogor: LPPM Universitas Pakuan.* b) *Suyanto M, 2005, Multimedia: Alat untuk Meningkatkan Keunggulan Bersaing, Yogyakarta: Andi Offset* c) *Munir, M. (2012). Multimedia konsep & aplikasi dalam pendidikan. Bandung: Alfabeta.* d) *Hasanah, A. R., Salam, M. A., & Mahtari, S. (2019, February). Developing the interactive multimedia in physics learning. In* e) *Journal of Physics: Conference Series (Vol. 1171, No. 1, p. 012019). IOP Publishing.* f) *Muller, D. A. (2008). Designing effective multimedia for physics education. Sydney: University of Sydney.* g) *Shermuhammedov, A. A., Mustafakulov, A. A., & Mamatkulov, B. H. (2021). Multimedia In The Teaching Of Physics Use. Conferencea, 105-108.* h) *Girwidz, R., & Kohnle, A. (2022). Multimedia and Digital Media in Physics Instruction. In Physics Education (pp. 297-336). Cham: Springer International Publishing.* i) *Qi, D., Zhang, S., Yang, C., He, Y., Cao, F., Yao, J., ... & Wang, L. V. (2020). Single-shot compressed ultrafast photography: a review. Advanced Photonics, 2(1), 014003-014003.* j) *Abdulloh, R. (2016). Easy & Simple-Web Programming. Elex Media Komputindo.*