**UNIVERSITAS NEGERI MALANG**

FACULTY OF MATHEMATICS AND NATURAL SCIENCES

SCIENCE EDUCATION STUDY PROGRAM

Jalan Semarang No 5, Malang 65145

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Website: <http://fmipa.um.ac.id/>

**Bachelor od Education in Science MODULE HANDBOOK**

|  |  |  |
| --- | --- | --- |
| Module name | : | Science Education Assessment |
| Module level, if applicable | : | Undergraduate |
| Code | : | PIPAUM6402 |
| Sub-heading, if applicable | : | - |
| Classes, if applicable | : | - |
| Module coordinator | : | Sugiyanto, S.Pd., M.Si |
| Lecturer | : | Sugiyanto, S.Pd., M.Si; Vita Ria Mustikasari, S.Pd., M.Pd |
| Language | : | Bahasa Indonesia |
| Classification within the curriculum | : | Compulsory courses |
| Teaching format | : | Group Discussion, classical learning, assignment |
| Workload | : | Akan diisikan oleh satgas std 1 sesuai ECTS |
| Credit points | : | 2 (~3.17 ECTS-eq) |
| Learning outcome | : | Able to analyze science learning problems and master the techniques of learning diagnosis, methods and data analysis by utilizing IT in the field of science learning research and communicating the results in accordance with scientific rules with a transdisciplinary approach |
| Course learning outcomes | : | * Analyzing the characteristics of assessment according to the characteristics of science learning
* Analyzing assessment techniques and principles of assessment instrument development in science learning
* Analyzing the reporting of science learning evaluation results
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| Content | : | 1) Measurement, assessment, and evaluation, 2) Characteristics of assessment, 3) Objectives and functions of assessment, 4) Evaluation models and approaches, 5) Types of test assessment instruments, 6) types of non-test assessment instruments, 7) Authentic assessment, 8) Knowledge domain assessment instruments, 9) Skill domain assessment instruments, 10) Attitude domain assessment instruments, 11) content and constructs validity 12) Validity, reliability, different power, and difficulty, 13) Scoring techniques , 14) PAP, 15) PAN, 16) Processing and reporting of evaluation results, 17) Evaluation and reflection of evaluation implementation |
| Study/exam achievements | : | Presentation, Paper, Middle exams, Final exams |
| Learning media | : | Powerpoint, Youtube, SPSS  |
| Literature | : | Krathwohl, D. R., 2002. *A Revision of Bloom's Taxonomy: An*Miller, M. D., Linn, R. L. & Gronlund, N. E. 2012. *Measurement and Assessment in Teaching*. New York: Pearson.Popham, W. J. 2013. [*Classroom Assessment: What Teachers Need to Know ,7th E*](http://www.amazon.com/Classroom-Assessment-What-Teachers-Need/dp/0132868601/ref%3Dsr_1_1?s=books&ie=UTF8&qid=1405476184&sr=1-1&keywords=Popham%2C+W.J.+Classroom+Assessment)*d.*New York: Pearson.Rahayu, S. 2014. *How to Evaluate Affective dimension in Chemistry Education*. In Kahveci, M. & Orgill, M. (Eds). *Affective dimensions in chemistry education*. Heidelberg: Springer.Safari. 2004. *Teknik Analisis Butir Soal Instrumen Tes dan Non-Tes dengan Manual, Kalkulator dan Komputer.* Jakarta: Depdiknas. |

The Mapping of Learning Outcome (LO) and Course Learning Outcome (CLO)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | LO 1 | LO 2 | LO 3 | LO 4 | LO 5 | LO 6 | LO 7 | LO 8 | LO 9 | LO 10 | LO 11 |
| CO 1 |  |  |  |  |  | √ |  |  |  | √ |  |
| CO 2 |  |  |  |  |  | √ |  |  |  | √ |  |
| CO 3 |  |  |  |  |  | √ |  |  |  | √ |  |