MODULE HANDBOOK

Course:	**Research Methodology**
Module Level:	Bachelor
Code:	PNT 497
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/Term:	4th / Second Year
Module Coordinator:	Prof. Dr. Retna Apsari, M.Si.
Lecturer(s):	Prof. Dr. Retna Apsari, M.Si. and Prof. Moh. Yasin, Pujiyanto M.Si.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course / ~~Elective Studies~~
Teaching format / class hours per week during semester:	2 hours lectures (50 min / hour)
Workload:	2 hours lectures, 2 hours structural activities, 2 hours individual study, 13 weeks per semester, and total 78 hours per semester ~ 2,6 ECTS*
Credit Points:	2
Requirement(s):	-
Learning Goals/Competencies:	**General Competence (Knowledge) :** After following this course, students understand about scientific research philosophy based on ethics and scientific writting techniques. **Specific Competence:** 1. Students are able to make physics research proposal (final project proposal) and/or Students Creativity Program proposal (proposal Program Kreativitas Mahasiswa) 2. Students are able to report research result with suitable data analysis and present the research result as one of publication media based on scientific ethics.
Contents:	This course consists of topics about research philosophy (human curiosity, critical attitude, research based on human creation purpose, research definition, research ethics and plagiatism), function and research types, scientific research steps (identification, problem background, theoritical discussion, literature, hypotesis, classification, variable operations, research design, sampling, and research instuments), research introductions in physics research groups, proposal writting technique, sampling method, data analysis, related statistic techniques, conclution method, scientific report writting rules, scientific presentation technique.
Soft Skill Attribute:	Effort and ethics.

Study/Exam Achievements:	Students are considered to be competent and passed if at least get 40% of maximum mark of the midterm test, final examination, quizzes and home work. Final score is calculated as follow: 20% Homework +20% Quizzes + 30% Midterm test +30% Final Exams Final index is defined as follow: A : 75 - 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 - 39.99
Forms of Media	Powerpoints slides, LCD projectors and whiteboards
Learning Method:	Lecture and discussion
Literature(s):	1. Moh. Nazir, 2009, *Metode Penelitian*, Penerbit Ghalia Indonesia, Jakarta 2. DIKTI, 2012, Pedoman Penyusunan PKM, Jakarta 3. Djonoputro, 1984, *Teori Ketidakpastian Menggunakan Satuan SI*, Penerbit ITB, Bandung 4. Mantra, 2004, *Filsafat Penelitian dan Metode Penelitian Sosial*, Penerbit Pustaka Pelajar, Yogyakarta 5. Herawati, 2000, *Pengolahan dan Analisis Data Dengan Analisis Varian, Modul Integratif Bahan Ajar (IBA*), F. MIPA Universitas Airlangga 6. Nasution, 2004, *Metode Research*, Penerbit PT Bumi Aksara, Jakarta 7. Zainuddin, M., 2000, *Metodologi Penelitian*, -, Surabaya 8. Montgomery, 1984, *Design dan Analysis Of Experiments*, Mc.Graw Hill 9. Robert G.D.Steel dan JH. Torrie, 1980*. Principle And Procedures Of Statistics (A Biometrical Approach),* Mc. Graw Hill Book Company 10. Others supporting books and the newest international journals.
Notes:	*Total ECTS = {(total hours workload × 50 min) / 25 hours Each ECTS is equals with 25 hours.