

PROGRAM STUDI MAGISTER TEKNIK GEOMATIKA
MASTER OF GEOMATICS ENGINEERING



BUKU PEDOMAN MATA KULIAH
COURSES MODULE HANDBOOK

TESIS
THESIS

DEPARTEMEN TEKNIK GEOMATIKA
Fakultas Teknik Sipil, Perencanaan, dan Kebumihan

DEPARTMENT OF GEOMATICS ENGINEERING
Faculty of Civil Engineering, Planning, and Geo Engineering

INSTITUT TEKNOLOGI SEPULUH NOPEMBER

<p><i>Description of Course</i></p>	<p>merupakan puncak dari semua ilmu yang diperoleh mahasiswa selama studi dan validasi ilmiah serta keahlian yang telah diperoleh. Mahasiswa wajib menuliskan hasil penelitiannya di buku Tesis dan mengikuti ujian/sidang Tesis serta mempublikasikan hasil penelitian tersebut di tingkat internasional baik dalam seminar internasional maupun jurnal internasional atau dalam jurnal nasional terakreditasi sebagai salah satu syarat kelulusan.</p> <p><i>Thesis course is a capstone course for the master's program as one of the requirements for completing the master's program study. Thesis research is the capstone of all the knowledge that students gain during their studies and scientific validation and expertise that has been obtained. Students are required to write their research results in the Thesis book and take the Thesis examination/trial and publish the research results at the international level, either in international seminars or in international journals or in accredited national journals as one of the graduation requirements.</i></p>
<p>Capaian Pembelajaran / Course Learning Outcomes</p>	<ol style="list-style-type: none"> 1. Menguasai konsep dan prinsip keilmuan dan rekayasa secara komprehensif, dan pengetahuan faktual tentang teknologi informasi dan komunikasi dan teknologi terbaru untuk mengembangkan prosedur dan strategi yang diperlukan untuk analisis dan desain sistem dalam bidang Teknik Geomatika dan aplikasinya yang menjadi topik bahasan. 2. Mampu memformulasikan dan menyusun penyelesaian permasalahan rekayasa, menghasilkan rancangan sistem dan mengimplementasikan alternatif penyelesaian permasalahan rekayasa dengan melakukan perluasan keilmuan yang mengadaptasi perubahan ilmu pengetahuan atau teknologi dalam bidang Teknik Geomatika yang menjadi topik bahasan. 3. Mampu menghasilkan tesis yang layak untuk dipublikasikan dalam jurnal ilmiah dengan memanfaatkan teknologi baik software/hardware dalam melakukan eksperimen terkait dengan analisis dan desain sistem yang menjadi topik bahasan. 4. Berusaha secara maksimal dalam menyelesaikan permasalahan di bidang Teknik Geomatika yang menjadi topik bahasan untuk mencapai hasil yang sempurna.

<p><i>Module objectives/ Course learning outcomes</i></p>	<ol style="list-style-type: none"> 1. Mastering the concepts and principles of scientific and engineering comprehensively, and factual knowledge about information and communication technology and the latest technology to develop procedures and strategies needed for the analysis and design of systems in the field of Geomatics Engineering and its applications which are the topic of discussion. 2. Being able to formulate and compile engineering problem solving, produce system designs and implement alternative engineering problem solving by expanding knowledge that adapts changes in science or technology in the field of Geomatics Engineering which is the topic of discussion. 3. Being able to produce a feasible thesis to be published in scientific journals by utilizing both software / hardware technology in conducting experiments related to system analysis and design which is the topic of discussion. 4. Striving maximally in solving problems in the field of Geomatics Engineering which is the topic of discussion to achieve perfect results. 																																																		
<p>CPL Prodi yang dibebankan <i>Learning outcomes and their corresponding to PLOs</i></p>	<table border="1" data-bbox="695 1093 1283 1317"> <thead> <tr> <th></th> <th>PLO.1</th> <th>PLO.2</th> <th>PLO.3</th> <th>PLO.4</th> <th>PLO.5</th> <th>PLO.6</th> <th>PLO.7</th> <th>PLO.8</th> <th>PLO.9</th> </tr> </thead> <tbody> <tr> <th>CLO.1</th> <td></td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th>CLO.2</th> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th>CLO.3</th> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <th>CLO.4</th> <td></td> <td></td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>		PLO.1	PLO.2	PLO.3	PLO.4	PLO.5	PLO.6	PLO.7	PLO.8	PLO.9	CLO.1			✓	✓						CLO.2				✓	✓					CLO.3					✓	✓		✓		CLO.4						✓		✓	✓
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<p>Mata kuliah wajib prasyarat <i>Mandatory prerequisites</i></p>	<p>Metodologi Penelitian dan Penulisan Proposal <i>Research Methodology and Proposal Writing</i></p>																																																		
<p>Pokok Bahasan</p> <p><i>Content</i></p>	<ol style="list-style-type: none"> 1. Pendahuluan (Latar belakang, Perumusan Masalah, Tujuan, Kontribusi dan Metodologi Penelitian) 2. Kajian Penelitian dan Dasar Teori 3. Metodologi Penelitian 4. Hasil Penelitian dan Pembahasan 5. Kesimpulan dan Saran <ol style="list-style-type: none"> 1. <i>Introduction (Background, Problem Formulation, Objectives, Contributions)</i> 2. <i>Research Studies and Basic Theory</i> 3. <i>Research Methodology</i> 4. <i>Research Results and Discussion</i> 5. <i>Conclusions and Suggestions</i> 																																																		

Pembelajaran dan Persyaratan Ujian <i>Study and examination requirements and forms of examination</i>	<table border="1"> <thead> <tr> <th>Rencana Evaluasi</th> <th>Bobot Weight</th> </tr> </thead> <tbody> <tr> <td>Ujian Proposal <i>Proposal examination</i></td> <td>15%</td> </tr> <tr> <td>Proses Penulisan Tesis <i>Thesis writing process assessment</i></td> <td>22%</td> </tr> <tr> <td>Laporan Tesis <i>Thesis Writing Process</i></td> <td>23%</td> </tr> <tr> <td>Ujian Tesis <i>Thesis examination</i></td> <td>40%</td> </tr> </tbody> </table>		Rencana Evaluasi	Bobot Weight	Ujian Proposal <i>Proposal examination</i>	15%	Proses Penulisan Tesis <i>Thesis writing process assessment</i>	22%	Laporan Tesis <i>Thesis Writing Process</i>	23%	Ujian Tesis <i>Thesis examination</i>	40%
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Media yang digunakan <i>Media employed</i>	Presentasi PPT dan Laporan <i>Power point presentation and reporting</i>											
Daftar Pustaka <i>Reading list</i>	<ol style="list-style-type: none"> 1. Program Pasca Sarjana ITS, 2020, <i>Pedoman Penyusunan Tesis</i>, Pasca Sarjana ITS Surabaya. 2. Purbo-hadiwidjojo, 1993, <i>Menyusun Laporan Teknik</i>, Penerbit ITB, Bandung 3. Leedy, Paul D. and Jeanne Ellis Ormrod. 2010. <i>Practical Research: Planning and Design, Ninth Edition</i>. Pearson Education, Inc 4. Buku teks yang mendukung / <i>Supporting texbooks</i> 5. Makalah dari jurnal atau konferensi yang mendukung / <i>Papers from supporting journals or conferences</i> 											