


**PROGRAM LEARNING OUTCOMES (PLO)
GEOPHYSICAL ENGINEERING BACHELOR PROGRAM
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

	INSTITUT TEKNOLOGI SEPULUH NOPEMBER FACULTY OF CIVIL, PLANNING AND GEO ENGINEERING GEOPHYSICAL ENGINEERING BACHELOR PROGRAM	CODE 33201
PROGRAM LEARNING OUTCOMES (PLO)		
CPL 1	<p>Kemampuan menerapkan prinsip-prinsip matematika, sains alam, teknologi informasi dan prinsip keteknikan ke dalam prosedur, proses, sistem, atau metodologi rekayasa geofisika untuk membuat atau memodifikasi model dalam menyelesaikan masalah teknik kompleks (<i>complex engineering problem</i>) secara prosedural dengan konsep pembangunan berkelanjutan (<i>sustainable development</i>).</p> <p>Ability to apply mathematics, natural science, information technology and principles of engineering into procedures, processes, systems or methodologies of Geophysical Engineering to create or modify models in solving complex engineering problems procedurally by the concepts of sustainable development.</p>	
CPL 2	<p>Kemampuan menguasai pengetahuan geologi sebagai dasar pengamatan dan pengukuran rekayasa geofisika.</p> <p>Ability to be skillful in geological knowledge as the fundamental of Geophysical Engineering measurements and observations.</p>	
CPL 3	<p>Kemampuan merancang sistem, proses dan komponen dengan pendekatan analitis dan mempertimbangkan standar teknis, aspek kinerja, keandalan, kemudahan penerapan dengan memperhatikan faktor ekonomi, kesehatan, keselamatan publik, kultural, sosial lingkungan dan pembangunan berkelanjutan serta mampu memanfaatkan potensi sumber daya lokal dan nasional dengan pengetahuan operasional lengkap terkait dengan teknologi eksplorasi geofisika.</p> <p>Ability to design systems, processes and components by an analytical approach and considering the technical standards, performance aspects, reliability, ease of implementation by concerned to economic and health factors, public safety, cultural, environmental social and sustainable development as well as being able to utilize the potential of local and national resources by complete operational knowledge related to geophysical exploration technology.</p>	
CPL 4	<p>Kemampuan menguasai konsep, prinsip dan teknik perancangan sistem, proses atau komponen aplikasi rekayasa geofisika secara prosedural dimulai dari pengambilan data, pengolahan, interpretasi dan pemodelan untuk menyelesaikan masalah rekayasa geofisika secara mendalam.</p> <p>Ability to hold the concepts, principles and techniques of system design, processes or components of Geophysical Engineering applications procedurally, starting from data acquisition, processing, interpretation and modeling to solve the Geophysical Engineering problems intensively.</p>	
CPL 5	<p>Kemampuan mengidentifikasi sumber masalah, merumuskan alternatif solusi, menganalisis berbasis teknologi informasi dan komputasi yang sesuai dalam menyelesaikan permasalahan rekayasa geofisika.</p> <p>Ability to identify the problem source, formulate alternative solutions, analyze based on information technology and the appropriate computation to solve Geophysical Engineering problems.</p>	
CPL 6	<p>Kemampuan menggunakan teknologi mutakhir dan material maju untuk meningkatkan kinerja, kualitas atau mutu suatu proses melalui pengujian, pengukuran obyek, kerja, analisis, interpretasi data sesuai prosedur dan standar kegiatan eksplorasi geofisika dengan memperhatikan kaidah geologi dan tujuan eksplorasi.</p> <p>Ability to utilize cutting-edge technology and advanced materials to increase the performance, quality of a process through testing, object measurement, work, analysis, interpretation of data according to procedures and standards for geophysical exploration activities by concerned to geological principles and exploration objectives.</p>	
CPL 7	<p>Kemampuan menguasai teknologi informasi dan teknik komunikasi efektif secara lisan dan tulisan berdasarkan kaidah, tata cara dan etika ilmiah untuk tujuan spesifik secara umum.</p> <p>Ability to overcome information technology and effective communication techniques in oral and writing based on scientific principles, procedures and ethics for specific purposes in general.</p>	
CPL 8	<p>Kemampuan mengorganisasi data dan menyajikannya kembali dengan memanfaatkan teknologi informasi yang sesuai dengan kebutuhannya dan mengevaluasi prosedur operasional lengkap dalam penyelesaian masalah teknologi rekayasa geofisika yang telah dan/atau sedang diterapkan.</p>	

	Ability to organize and restate the data by employing information technology in accordance with their needs and evaluate complete operational procedures to accomplish the problems of geophysical engineering technology that have been and/or are being implemented.
CPL 9	Kemampuan bekerja sama dalam keanekaragaman budaya dan multi disiplin dalam peningkatan mutu kehidupan masyarakat dan negara. Ability to collaborate in cultural diversity and multi-disciplines to escalate the living quality of community and country.
CPL 10	Kemampuan untuk bertanggung jawab, menginternalisasi nilai, norma dan etika akademik atas pekerjaan rekayasa geofisika. Ability to be responsible, internalize values, norms and academic ethics for geophysical engineering project.
CPL 11	Kemampuan menerapkan ilmu pengetahuan dan teknologi dalam konteks pengembangan pembelajaran sepanjang hayat dan berwawasan pembangunan berkelanjutan. Ability to execute sciences and technology in the evolving context of long-life learning and a sustainable development perspective.
CPL 12	Kemampuan mengkaji implikasi ilmu pengetahuan yang relevan dan faktual dengan isu-isu kekinian di bidang rekayasa geofisika. Ability to examine the implications of sciences that are relevant and factual by contemporary issues in geophysical engineering.

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Head of
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