1.	Title of the course	Ground Improvement and Geosynthetics
2.	Course number	CE526L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To CE5206/8
6.	To be offered by	Department of Civil and Environmental Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** This course describes the basic concepts of different ground improvement techniques for varied subsoil types and profiles. This course also describes the fundamental aspects of geosynthetics and their applications in infrastructure development including foundations, embankments, reservoirs, pavements, airfields and waste containment facilities. Upon completion of this course, the student will be able to design appropriate ground improvement for a given soil condition, type of structure and type of loading.	
10.	**Course Content:** This course describes the basic concepts of different ground improvement techniques for varied subsoil types and profiles. This course also describes the fundamental aspects of geosynthetics and their applications in infrastructure development including foundations, embankments, reservoirs, pavements, airfields and waste containment facilities. Upon completion of this course, the student will be able to design appropriate ground improvement for a given soil condition, type of structure and type of loading.	
11.	**Textbook(s):** 1. Hausmann M R, *Engineering Principles of Ground Modification*, McGraw Hill (2013). 2. Koerner R M, *Designing with Geosynthetics*, Prentice Hall (2005).	
12.	**Reference(s):** 1. Colins J F P J, *Earth Reinforcement and Soil Structures*, Thomas Telford (1996). 2. Jie H, *Principles and Practice of Ground Improvement*, John Wiley & Sons (2015). 3. Shukla S K, *Geosynthetics and their Applications*, Thomas Telford (2002). 4. Xanthakos P P, Abramson L W and Bruce D A, *Ground Control and Improvement*, John Wiley & Sons (1994).	