

**Faculty of Engineering & Technology**  
**Properties of Matter and Thermodynamics**

**Information :**

**Course Code :** EMP121

**Level :** Undergraduate

**Course Hours :** 4.00- Hours

**Department :** Faculty of Engineering & Technology

**Instructor Information :**

Title	Name	Office hours
Professor	Waleed Abdelmonem Zein Elsheshtawy	1
Associate Professor	Ahmed Shawky Mohammed Ghareeb	1
Assistant Lecturer	REHAM MILAD KAMEL SAMAAN	
Assistant Lecturer	Nada El Said Abdallah Hassan Salem	
Teaching Assistant	Mohamed Mahmoud Yassin Ahmed Ismail	
Teaching Assistant	Sanaa Mohamed Mohamed Azab Abdo	
Teaching Assistant	Ammar Emad Hamdy Afifi	
Teaching Assistant	Asmaa Abdelfattah Alsayed Abdelfattah	
Teaching Assistant	Abdallah Sobhy Mahmoud Hussein	
Teaching Assistant	Asmaa Abdelmotlb Youssef Aly	
Teaching Assistant	Youssef Hany Abdelwahed Abdelghany Nour	
Teaching Assistant	Jomana Tamer Mohamed Abd Elghany	

**Description :**

Properties of Matter: Units and dimensions, Energy of a system, Elastic Properties of materials, Hydrostatics, Hydrodynamics and viscosity, applications of hydrodynamics. Waves: types, properties, and applications. Heat and thermodynamics: Temperature, thermal expansion of solids and liquids, Heat and internal energy, specific heat and calorimetry, latent heat, work and heat in thermodynamic processes, first law of thermodynamics including some applications, energy transfer mechanisms.