

**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
Associate Professor	Borham Mohamed Taher El adorously Ali eldin	1
Lecturer	MOHAMED EHAB AHMED FAKHERELDIN BAKR	5
Assistant Lecturer	Ahmed Abdelfattah Abdelaziz Abdelfattah	
Assistant Lecturer	REHAM MILAD KAMEL SAMAAN	
Assistant Lecturer	Nada El Said Abdallah Hassan Salem	
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Assistant Lecturer	Nada El Said Abdallah Hassan Salem	
Assistant Lecturer	Ahmed Abdelfattah Abdelaziz Abdelfattah	
Assistant Lecturer	Mohamed Yahia Mohamed Abdelkader	
Assistant Lecturer	YOUSSEF ELSAYED ABDELHAFEZ KANDIEL	
Assistant Lecturer	YOUSSEF ELSAYED ABDELHAFEZ KANDIEL	
Teaching Assistant	Akram Rabie Hamed Ragheb Tobar	
Teaching Assistant	Mohamed Fathy Salem Mohamed	
Teaching Assistant	Mohamed Fathy Salem Mohamed	

**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.

