BIY 109 - GENERAL CHEMISTRY - Fen Edebiyat Fakültesi - Biyoloji Bölümü

General Info

Objectives of the Course

To give the basic general chemistry concepts to students to form base of chemistry

Course Contents

Matter, Elements, Compunds, Mixtures, mole concept, measurement and converting measurement units, uncertainty, accuracy, certainty, atomic models, general properties of periodic table, Chemical reactions, precipitation, neutralization and redox reactions, reaction stoichiometry, Chemical bouds, gases, solutions, chemical equilibrium, acids and bases, pH calculations, titrations, buffer solutions, solubility, chemical kinetics

Recommended or Required Reading

1-Petrucci,R.H., Herring, F.G., Madura, J.D., Bissonnette, C., Genel Kimya 1 : İlkeler ve Modern Uygulamalar, (10. Baskıdan Çeviri Uyar, T., Aksoy, S., İnam, R.), Palme Yayıncılık, Ankara, 2015 2- Petrucci,R.H., Herring, F.G., Madura, J.D., Bissonnette, C., Genel Kimya 2 : İlkeler ve Modern Uygulamalar, (10. Baskıdan Çeviri Uyar, T., Aksoy, S., İnam, R.), Palme Yayıncılık, Ankara, 2015

Planned Learning Activities and Teaching Methods

Lecture, question and answer, discussion

Presentation Of Course

Face to face

Dersi Veren Öğretim Elemanları

Dr. Öğr. Üyesi Bahar Tuba Fındık

Program Outcomes

1. To be able to know general concepts related to chemistry.
2. To be able to know the prepartion of solution.
3. To be able to write chemical equations.
4. To be able to know nomenculation of chemical compounds
5. To be able to explain the importance of acid-base balance in biological systems (such as the blood buffer system).
6. Defines chemical equilibrium, relates Le Chatelier's principle to biochemical processes.
7. Relates general chemistry principles to the structure and function of biological molecules.

Weekly Contents

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Practise
1	Petrucci-Chapter 1		Lecture, question-answer, discussion	The role and importance of chemistry in biology, matter and chemistry	
2	Petrucci-Chapter 2		Lecture, question-answer, discussion	Atoms and atomic theory	
3	Petrucci-Chapter 3		Lecture, question-answer, discussion	Chemical compounds	
4	Petrucci-Chapter 4		Lecture, question-answer, discussion	Chemical reactions-I	
5	Petrucci-Chapter 4		Lecture, question-answer, discussion	Chemical reactions II	
6	Petrucci-Chapter 5		Lecture, question-answer, discussion	Introduction to aqueous solution reactions	
7	Petrucci-Chapter 9		Lecture, question-answer, discussion	Electron structure of the atom, periodic table, and atomic properties	
9	Petrucci-Chapter 14		Anlatım, soru-cevap, tartışma Lecture, question-answer, discussion	Solutions and their physical properties	
10	Petrucci-Chapter 14		Lecture, question-answer, discussion	Concentration calculations (molarity, normality, %, molality, ppm)	
11	Petrucci-Chapter 16		Lecture, question-answer, discussion	Chemical equilibrium	
12	Petrucci-Chapter 16		Lecture, question-answer, discussion	Factors affecting chemical equilibrium	
13	Petrucci-Chapter 17		Lecture, question-answer, discussion	Acids and bases	
14	Petrucci-Chapter 18		Lecture, question-answer, discussion	Acid-base	
15	Petrucci-Chapter 28		Lecture, question-answer, discussion	Chemistry of living things	

Workload

Activities	Number	PLEASE SELECT TWO DISTINCT LANGUAGES
Vize	1	2,00
Final	1	2,00
Ders Öncesi Bireysel Çalışma	14	2,00
Teorik Ders Anlatım	14	2,00
Ara Sınav Hazırlık	4	4,00
Final Sınavı Hazırlık	4	4,00

Assesments

Activities	Weight (%)
Ara Sınav	40,00
Final	60,00