

Table 1. ASBMB recommended objectives for Biochemistry majors	
#	Objective
1	Students should be able to explain and apply the core concepts underlying the theory of evolution , including the process of natural selection and its molecular basis, and evidence supporting the theory of evolution.
2	Students should be able to explain and apply core concepts of matter and energy transformation , including thermodynamics , catalysis , the coupling of exergonic and endergonic processes, and the nature of biological energy
3	Students should be able to explain and apply core concepts of underlying homeostasis , including the need for biological balance, linked steady state processes , quantification of homeostasis, the organization of chemical processes, and control mechanisms .
4	Students should be able to explain and apply core concepts of biological information , including the genome , the manner in which the information it contains is encoded and translated , and the mechanisms by which it is transmitted and maintained across generations
5	Students should be able to explain and apply core concepts of macromolecular structure and function, including the nature of biological macromolecules, their interaction with water , the relationship between structure and function , and frequently-encountered mechanisms for regulating their function
6	Students should understand the process of science , including hypothesis generation, experimental design , quantitative analysis , and data interpretation