

Course objective	Geisel competency	Course Objective
1	1a, 1b	To explain the major catabolic and anabolic pathways by which human cell types metabolize carbohydrates, lipids, amino acids and nucleotides.
2	1a, 1b	To recall the key regulatory points in human metabolic pathways.
3	1a, 1b	To explain how diet and hormonal signaling regulate major human metabolic pathways.
4	1a, 1b	To recognize the role of vitamins and minerals in intermediary metabolism.
5	1a, 1b	To describe how vitamin deficiencies impact human metabolism and pathophysiology.
6	1a, 1b	To define the biochemical functions and integrated metabolism of major tissues including brain, digestive system, liver, red cell, muscle and adipocyte.
7	1a, 1b	To explain the molecular mechanisms underlying the major inherited diseases of metabolism.
8	1a, 1d, 1e	To explain how certain medicines and drugs impinge upon metabolic pathways.
9	1a, 1d, 1e, 1f	To interpret how specific genetic tests and perinatal screening results can indicate metabolic disorders.
10	1a, 1d, 1e, 1f	To describe how interaction of environmental and genetic factors can contribute to specific diseases of metabolism.
11	1a	To practice and demonstrate systematic problem-solving skills.
12	1e, 1f	To connect specific symptoms in clinical case presentations to metabolic disorders.
13	1b, 5b, 5e	To critically evaluate and discuss the primary literature in small literature discussion groups.
14	1b,5b	Critically evaluate studies in the biomedical literature that use biochemical, molecular biological and genetic techniques
15	3f,3h	Communicate and interact with colleagues effectively and collegially.
16	4a,4b	Behave respectfully and responsibly and meet professional responsibilities fully, including being punctual, present, and engaged.
17	4h	Take responsibility for his or her own medical education.