Here is a possible graph representation of the course outline:

Nodes:

1. General Organic Chemistry (root node)
2. Introduction to Organic Chemistry
3. Nomenclature
4. IUPAC Rules
5. Functional Groups
6. Isomerism
7. Structural Isomerism
8. Stereoisomerism
9. Chemical Bonding
10. Sigma (σ) Bond
11. Pi (π) Bond
12. Hybridization
13. Inductive and Electromeric Effects
14. Inductive Effect (I effect)
15. Electromeric Effect (E effect)

Edges:

1. General Organic Chemistry → Introduction to Organic Chemistry (topic)
2. General Organic Chemistry → Nomenclature (topic)
3. Nomenclature → IUPAC Rules (subcategory)
4. Nomenclature → Functional Groups (subcategory)
5. IUPAC Rules → Rule 1 (detail)
6. IUPAC Rules → Rule 2 (detail)
7. IUPAC Rules → Rule 3 (detail)
8. Functional Groups → Hydroxyl (example)
9. Functional Groups → Carboxyl (example)

10. Functional Groups → Aldehyde (example)
11. Functional Groups → Ketone (example)
12. General Organic Chemistry → Isomerism (topic)
13. Isomerism → Structural Isomerism (subcategory)
14. Isomerism → Stereoisomerism (subcategory)
15. Structural Isomerism → Chain Isomerism (type)
16. Structural Isomerism → Position Isomerism (type)
17. Structural Isomerism → Functional Isomerism (type)
18. Structural Isomerism → Metamerism (type)
19. Stereoisomerism → Geometric Isomerism (type)
20. Stereoisomerism → Optical Isomerism (type)
21. General Organic Chemistry → Chemical Bonding (topic)
22. Chemical Bonding → Sigma (σ) Bond (subcategory)
23. Chemical Bonding → Pi (π) Bond (subcategory)
24. Chemical Bonding → Hybridization (subcategory)
25. Sigma (σ) Bond → Definition (detail)
26. Pi (π) Bond → Definition (detail)
27. Hybridization → Types (detail)
28. General Organic Chemistry → Inductive and Electromeric Effects (topic)
29. Inductive and Electromeric Effects → Inductive Effect (I effect) (subcategory)
30. Inductive and Electromeric Effects → Electromeric Effect (E effect) (subcategory)
31. Inductive Effect (I effect) → +I effect (type)
32. Inductive Effect (I effect) → -I effect (type)
33. Electromeric Effect (E effect) → +E effect (type)
34. Electromeric Effect (E effect) → -E effect (type)

Note: The edges represent the hierarchical relationships between the nodes. A → B means that node A has a child node B. Not to be included in the graph.