Named Reactions in Organic Synthesis: *You should recognize and be able to draw mechanisms for all of the following (organized by where you will have encountered them in the course):*

Carbonyl chemistry:
Haloform reaction
Robinson annelation
Perkin reaction
Darzens Condensation
Acyloin reaction
Baylis-Hilman
Reformatskii

Alkenes:
Simmons-Smith
Cope Elimination

Oxidation/reduction:
Birch reduction
Meerwein-Ponndorf- Verley reduction / Oppenauer oxidation
Wolff-Kishner reduction
Cannizzaro reaction
Swern oxidation
Bayer-Villiger oxidation
Dakin reaction
Lindlar reduction
Prevost and Woodward dihydroxylations
Etard reaction

Pericyclic reactions:
Cope/Claisen rearrangement
Diels-Alder
Nazarov
Mclafferty rearrangement

Radicals:
Bergmann cyclization
Barton-McCombie
Stevens rearrangement
Sommlet–Hauser rearrangement
Hoffmann-Loffler-Freytag reaction

Aromatic Chemistry:
Friedel Crafts
Sandmeyer reaction / Balz-Schiemann
Reimer-Tiemann
Kolbe-Schmitt
Gattermann-Koch
Vilsmeier formylation
Fischer indole synthesis
Hantzsch pyridine synthesis
Paal-Knoor synthesis

Catalysis:
Sharpless – epoxidation and dihydroxylation
Heck, Suzuki, Sonagashira, Stille, Negishi, Kumada cross-couplings
Buchwald-Hartwig amination
Tsuji-Trost
Cross metathesis (Grubbs and Schrock)
Wacker oxidation

Heteroatoms - P:
Appel reaction
Arbusov reaction
Wittig reaction
Horner-Wadsworth-Emmons reaction
Seyferth–Gilbert / Ohira-Bestmann
Corey–Winter reaction
Mitsunobu reaction
Corey–Fuchs reaction
Staudinger reaction

Heteroatoms - S:
Julia olefination
Pummerer rearrangement
Shapiro reaction
Ramberg Buckland

Heteroatoms - Si:
Brook rearrangement
Peterson olefination

Rearrangements:
Favorskii
Wolff rearrangement
Benzilic acid rearrangement
Curtius rearrangement
Hofmann rearrangement
Beckmann rearrangement
Arndt–Eistert synthesis
Wittig [2,3]-rearrangement

Chemical biology:
Bucherer–Bergs reaction
Strecker amino acid synthesis
Benzoin / Stetter reaction