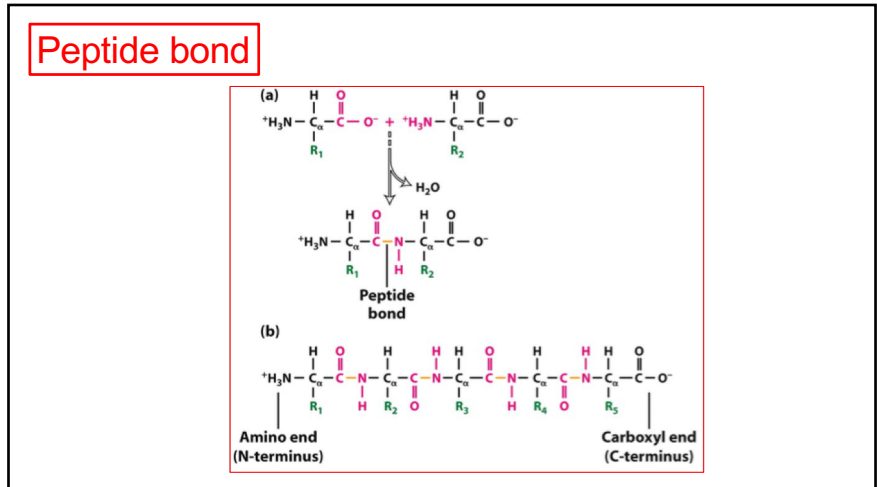
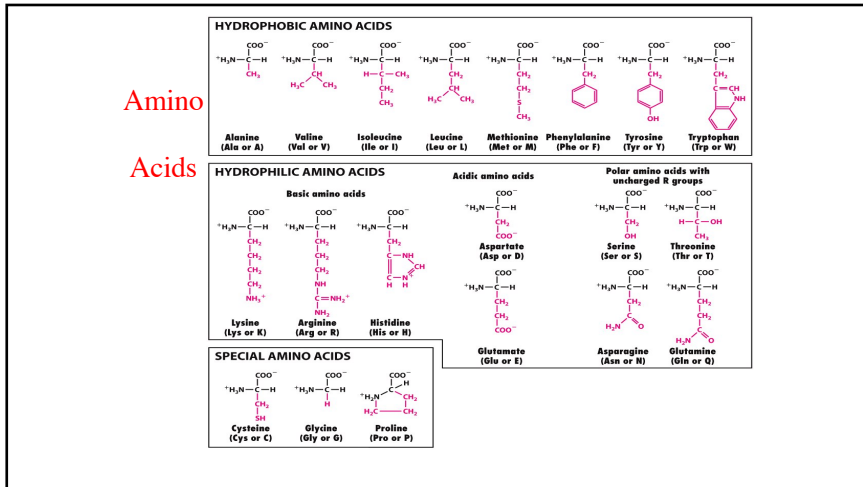
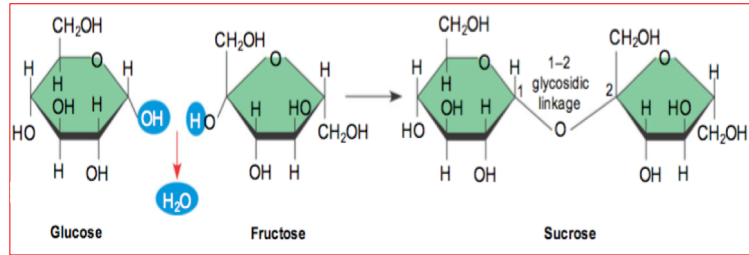


Repetition
Summary of last lecture

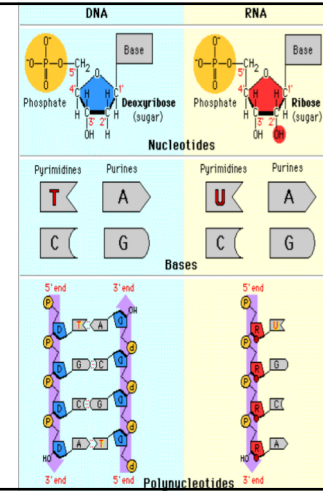
Elements	Monomer	Polymer
H, O, C, N, P, S, --->	~ 20 Amino Acids (AA)	---> proteins
	H ₂ O	peptides
	Van der Waals Interactions	
	glucose	---> sucrose
		starch
		glycogen
		cellulose
	nucleotide	---> DNA, RNA
	fatty acids, glycerol	---> Lipids



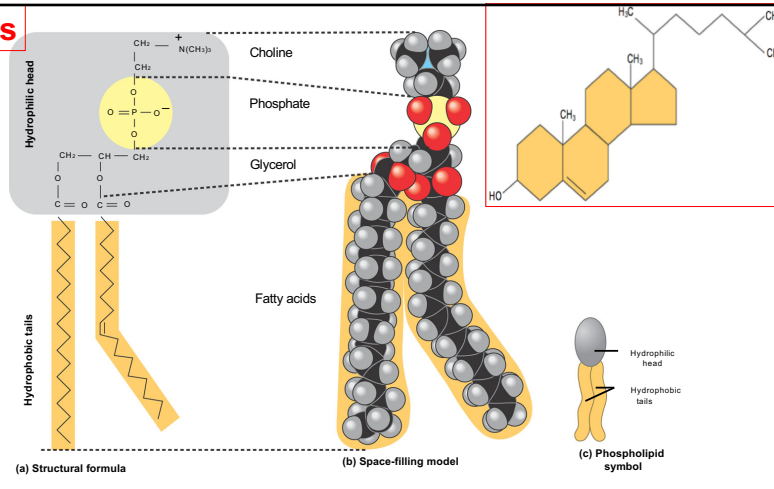
Sucrose



DNA / RNA

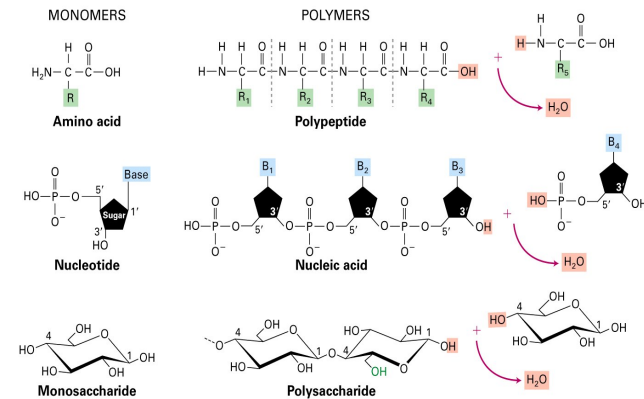


Lipids



Taking-home message:

Essential Bio-Engineering-related Bio-Molecules



Further important large cellular biomolecules

Energy: ATP

e⁻ carrier: NAD⁺ & FAD

Cells

Eukaryotic (membrane systems, mitochondria, nucleus , **chloroplasts**)

Prokaryotic