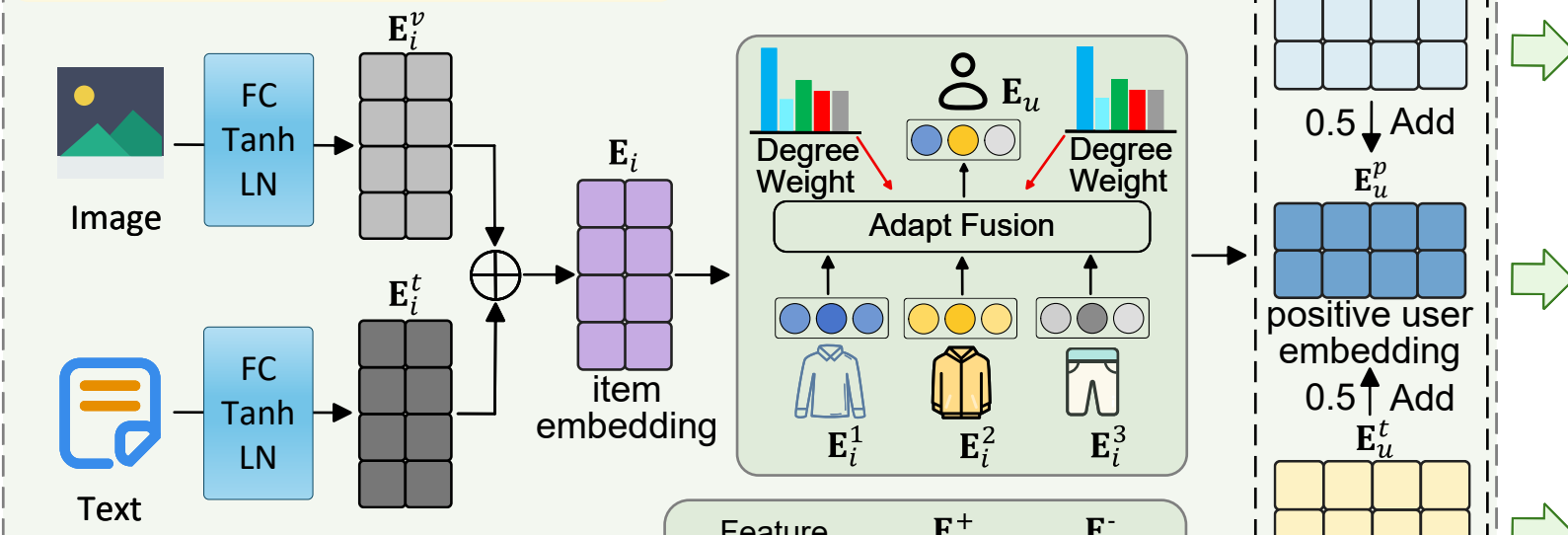
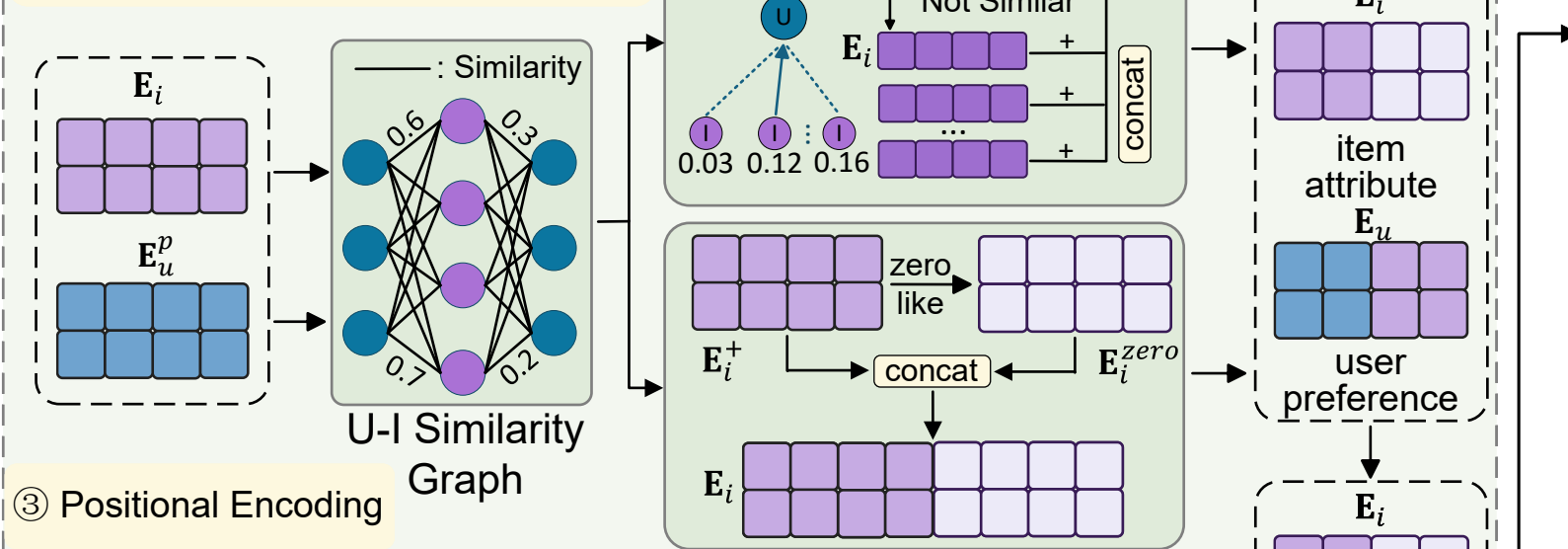


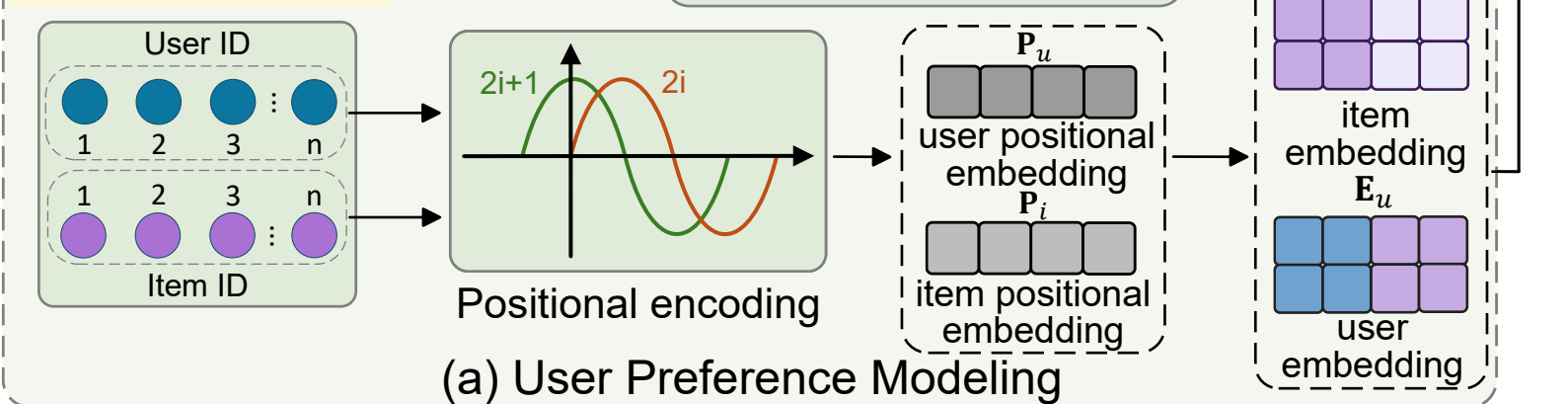
① User personal preferences Modeling



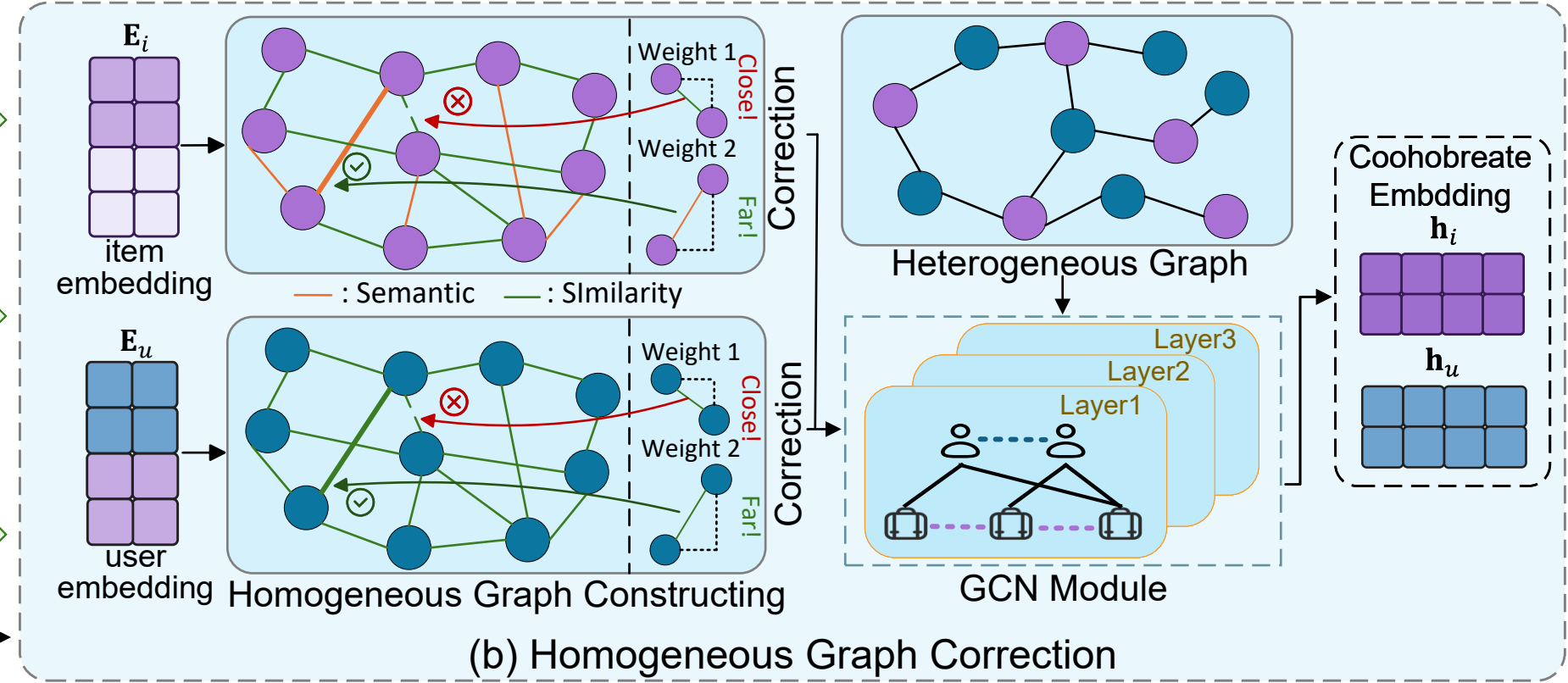
② User Negative Preference Modeling



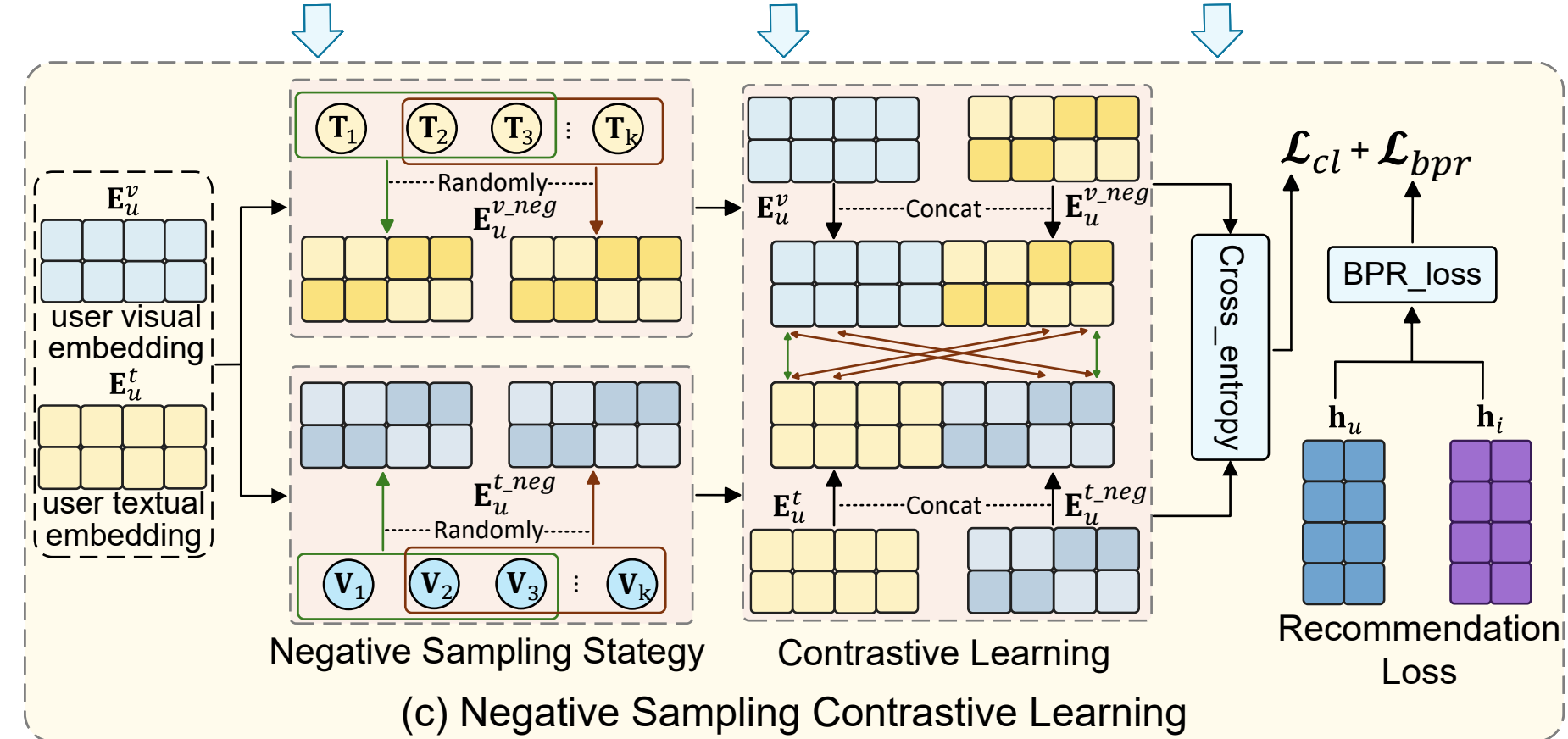
③ Positional Encoding



(a) User Preference Modeling



(b) Homogeneous Graph Correction



(c) Negative Sampling Contrastive Learning