Understanding stereochemistry through molecular modelling and 3D printing

Course Outline

Learning Outcomes:

1. Understand Chemistry in 3D space, Chirality and its origin, symmetry criterion;
2. Able to assign chiral centers with absolute (R/S and D,L) and relative configurations (Threo/erythro and syn/anti)
3. Able to draw molecules with tetrahedral form, Newman projection and Fisher projection
4. Generate computer model and real model by 3D printing

Study hours:

18 hours + 6 hours workshop

Assignment

Assignment 1: Assigning Chiral Centers

Assignment 2: Case study of stereochemistry in biological system and drug design

Assignment 3: Molecular Model

Assignment 4: End of course exam