

Purposes of Undergraduate Laboratory Instruction

1. Teach theoretical material not presented elsewhere
2. Illustrate and amplify lecture material
3. Develop manipulative skills
4. Develop ability to follow instructions
5. Familiarize students with instruments and apparatus
6. Familiarize students with the design and construction of experimental equipment
7. Develop observational skills
8. Develop skills in gathering and interpreting data
9. Develop a concern for accuracy
10. Develop skill in communicating experimental results
11. Develop the ability to write coherent and well-argued reports
12. Develop the capacity for self-directed learning
13. Encourage independent thinking
14. Stimulate thought through experimental interpretation
15. Develop the students' skill in problem-solving with a wide number of variables and many possible solutions
16. To encourage enterprise, initiative, resourcefulness
17. Develop personal responsibility and reliability for experimentation
18. Develop the ability to work effectively as a member of a team