



# Academic Site License

**Elevate your research and teaching with industry-leading molecular modeling software**

As science becomes increasingly digital, incorporating computational technologies into academic research and course curricula is critical. Schrödinger's Academic Site License enables scientists and students to access cutting-edge physics-based molecular modeling and machine learning solutions for diverse research and teaching applications. An Academic Site License provides higher throughput to perform larger scale computations across departments, as well as increases accessibility and usability of Schrödinger software within an entire institution or school system.



**Access to all of Schrödinger's Core Suites and PyMOL —**  
Small Molecule Drug Discovery, Biologics, and Materials Science



**Deploy software across science and engineering departments** within your university for teaching and academic research



**Enable your students to solve the chemistry challenges of tomorrow** with industry-leading computational tools



**Enhance your courses with ease** by incorporating Schrödinger-prepared tutorials and curricula

# Digital chemistry solutions for life science and materials science

The Schrödinger Academic Site License is a scalable solution for academic institutions to provide access to large-scale license sets that can be used for research and teaching across an entire university system.

## Academic Departments Chemistry, Physics, Biology

- Accelerate molecular design and evaluate chemical stability of molecules
- Understand reaction mechanisms
- Use theory to enhance product yield and output
- Simulate IR, Raman, UV-Vis, and NMR spectroscopy

## Health Sciences & Medical School

- Perform structure prediction, protein-ligand docking, virtual screening, and more
- Computationally engineer antibodies, peptides, enzymes, antigens, and more
- Speed up pharmaceutical formulation development with diverse tools

## School of Engineering

- Model materials for batteries, fuel cells, hydrogen storage, and more
- Simulate and analyze critical properties of component materials and interfaces
- Build machine learning models with automated cheminformatics tools
- Enumerate and explore vast chemical space using streamlined workflows



# Power your research and teaching curriculum with Schrödinger software

| Bachelors in Chemistry            | Core Courses Required for the Major |              |  |                         |                              |  |               |   |  |                           |  | Disciplinary Electives in the Major  |                                   |
|-----------------------------------|-------------------------------------|--------------|--|-------------------------|------------------------------|--|---------------|---|--|---------------------------|--|--------------------------------------|-----------------------------------|
| Core and Elective Courses         | General Chemistry                   |              |  | Organic Chemistry       |                              |  |               |   |  | Inorganic Chemistry       |  | Biochemistry and Medicinal Chemistry |                                   |
| Teaching With Schrödinger Lessons | Chemical Bonding                    | VSEPR Theory | HOMO-LUMO Energy Gap                         | SN2 Reactions           | Nucleophiles & Electrophiles | HOMO-LUMO Energy Gap                         | Stereoisomers | IR Spectroscopy   | Diels-Alder Reactions                        | Organometallic Structures | Aminolysis of TiCl4                          | Protein-Ligand Docking               | Structure-Based Virtual Screening |
| Learning Standards                |                                     |              |  |                         |                              |  |               |   |  |                           |  |                                      |                                   |
| ACS Guidelines                    | Section 5.2                         | Section 5.2  | Electronic, steric, and orbital interactions | Substitution Mechanisms | Properties of Molecules      | Electronic, steric, and orbital interactions | Section 5.2   | Deducing Structures through spectroscopy and computational data | Electronic, steric, and orbital interactions | 18 Electron Rule          | Transition elements & coordination chemistry | Section 5.1                          | Section 5.1                       |
| ETS Chemistry GRE                 | Section 2A                          | Section 2C   | Section 3F                                   | Section 3C              | Section 3A                   | Section 3F                                   | Section 3A    | Section 3A  | Section 3C                                   | Section 2H                | Section 2H                                   | Section 3F                           | Section 3F                        |
| AAMC MCAT                         | Section 5B                          | Section 5B   | Section 4E                                   | Section 5D              | Section 5B                   | Section 4E                                   | Section 5B    | Section 4D  |  |                           |  | Section 5D                           | Section 5D                        |
| Computational Methods             |                                     |              |  |                         |                              |  |               |   |  |                           |  |                                      |                                   |
| Geometry Optimization             | ✓                                   | ✓            | ✓  | ✓                       | ✓                            | ✓  | ✓             | ✓   | ✓  |                           |  |                                      |                                   |
| Surfaces                          | ✓                                   |              |  |                         | ✓                            |  | ✓             |   |  |                           |  |                                      |                                   |
| Measurements                      | ✓                                   | ✓            |  | ✓                       |                              |  |               |   | ✓  |                           | ✓  | ✓                                    | ✓                                 |
| Orbitals                          |                                     |              | ✓  |                         |                              | ✓  |               |   | ✓  |                           |  |                                      |                                   |
| Spectroscopy                      |                                     |              |  |                         |                              |  |               | ✓   |  |                           |  |                                      |                                   |
| Vibrations                        |                                     |              |  | ✓                       |                              |  |               | ✓   | ✓  |                           | ✓  |                                      |                                   |
| Transition States                 |                                     |              |  | ✓                       |                              |  |               |   | ✓  |                           | ✓  |                                      |                                   |
| Energy Diagrams                   |                                     |              |  | ✓                       |                              |  |               |   | ✓  |                           | ✓  |                                      |                                   |
| Docking                           |                                     |              |  |                         |                              |  |               |   |  |                           |  | ✓                                    | ✓                                 |
| Virtual Screening                 |                                     |              |  |                         |                              |  |               |   |  |                           |  | ✓                                    | ✓                                 |
| Builders                          |                                     |              |  |                         |                              |  |               |   |  | ✓                         | ✓  |                                      |                                   |





**Speak with an expert to find the  
right solution for your institution**

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