Courses offered by the Department of Structural Biology are listed under the subject code SBIO on the Stanford Bulletin’s ExploreCourses web site.

The department offers course work and opportunities for research in structural biology.

The emphasis of research in the department is on understanding fundamental cellular processes in terms of the structure and function of biological macromolecules and their assemblies. Techniques used include standard methods of biochemistry, cell culture, single-molecule fluorescence spectroscopy, genetic engineering, and three dimensional structure determination by x-ray diffraction, nuclear magnetic resonance spectroscopy and electron microscopy, coupled with the development of computational methods.

Doctor of Philosophy in Structural Biology

Admission

Applicants to the program should have a bachelor’s degree and should have completed at least a year of coursework in biology, mathematics, organic chemistry, physical chemistry, and physics. Applications must be received by the department before December 15 for notification by April 15. Application to the National Science Foundation for fellowship support is also encouraged. Prospective applicants should contact the Department of Structural Biology for further information. GRE general score is optional and GRE subject score is not required.

The recommendations for applying to the Ph.D. program in the Department of Structural Biology include:

- At least 1 course in literature-based biological science
- At least 1 course in physical science
- At least 3 additional graduate level courses in physical or biological science, with
  - at least 1 course in physical science
  - at least 1 course in literature-based biological science

Graduate Studies:

Ph.D. students in the Department of Structural Biology are required to complete all the following requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOS 200</td>
<td>Foundations in Experimental Biology</td>
<td>5</td>
</tr>
<tr>
<td>SBIO 241 or BIOE 300A</td>
<td>Biological Macromolecules</td>
<td>3-5</td>
</tr>
<tr>
<td>SBIO 242</td>
<td>Methods in Molecular Biophysics (offered every other year)</td>
<td>3</td>
</tr>
<tr>
<td>BIOPHYS 250</td>
<td>Seminar in Biophysics</td>
<td>1</td>
</tr>
<tr>
<td>MED 255</td>
<td>The Responsible Conduct of Research</td>
<td>1</td>
</tr>
</tbody>
</table>

The student must pass the University oral examination, taken only after the student has substantially completed the research. The examination is preceded by a public seminar in which the research is presented by the candidate.

Current topics of research in the department lie in the areas of gene expression; theoretical, crystallographic, and genetic analysis of protein structure; and cell-cell interaction. See Stanford’s School of Medicine (http://www.med.stanford.edu/school/structuralbio) web site for further information.

Graduate Advising Expectations

The Department of Structural Biology is committed to providing academic advising in support of graduate student scholarly and professional development. When most effective, this advising relationship entails collaborative and sustained engagement by both the adviser and the advisee. As a best practice, advising expectations should be periodically discussed and reviewed to ensure mutual understanding. Both the adviser and the advisee are expected to maintain professionalism and integrity.

Faculty advisers guide students in key areas such as selecting courses, designing and conducting research, developing of teaching pedagogy, navigating policies and degree requirements, and exploring academic opportunities and professional pathways.

Graduate students are active contributors to the advising relationship, proactively seeking academic and professional guidance and taking responsibility for informing themselves of policies and degree requirements for their graduate program.

For a statement of University policy on graduate advising, see the "Graduate Advising (http://exploredegrees.stanford.edu/graduatedegrees/#advisingandcredentialstext)" section of this bulletin.

Chair: William I. Weis

Associate Chair: Michael Levitt

Director of Graduate Studies: Theodore Jardetzky

Professors:

- K. Christopher Garcia
- Theodore Jardetzky
- Roger D. Kornberg
- Michael Levitt
- Peter Parham
- Joseph D. Puglisi
- Georgios Skiniotis
- Soichi Wakatsuki
- William I. Weis
Associate Professor (Research):

- Yahli Lorch

Assistant Professor (Research):

- Elizabetta Viani Puglisi

Assistant Professor:

- Adam de la Zerda

Courtesy Professor:

- Axel Brunger
- Vijay Pande

Courtesy Associate Professor:

- Zev Bryant