Neurosurgery

Chair

- Matthew A. Howard

**Faculty:** https://medicine.uiowa.edu/neurosurgery/profile/

**Website:** https://medicine.uiowa.edu/neurosurgery/

The Department of Neurosurgery provides an experience oriented toward patient care and basic research concerning diseases and physiology of the nervous system. Students develop awareness of neurosurgery's role in treating head and spine trauma, vascular disorders, brain and spinal cord tumors, pain and peripheral nerve abnormalities, degenerative spine pathology, and surgical treatment of epilepsy and movement disorders.

Clinical courses are designed around patient-centered discussions interwoven with operating room experiences. Lectures and conferences are scheduled on specific topics.

**Faculty**

Neurosurgery faculty strengths are centered in physiology of spinal cord trauma, epilepsy, auditory brain function and pain, primary brain tumor genetics, central nervous system tissue culture, spinal column biomechanics, and movement disorders. The department has expertise in clinical management across the spectrum of central nervous system diseases.

**M.D. Training**

The department provides third- and fourth-year M.D. students with access to special expertise in selected topics of investigation regarding the central nervous system and to a clinical course through special arrangements with the faculty.

**Facilities**

Multiple, fully equipped laboratory space is available to support scientific research of the central nervous system. Faculty and technical assistance is available in all laboratories.

**Courses**

Neurosurgery courses are open only to M.D. and qualified associated health sciences students.

**Neurosurgery Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSG:8401</td>
<td>Advanced Inpatient Subinternship in Neurosurgery</td>
<td>4 s.h.</td>
<td>Advanced clinical clerkship in neurological surgery; emphasis on diagnosis and operative management of surgical neurological disease.</td>
</tr>
<tr>
<td>NSG:8497</td>
<td>Research in Neurological Surgery</td>
<td>arr.</td>
<td>Laboratory investigation of spinal cord injury, spinal column biomechanics and instrumentation, electrophysiology of pain, epilepsy and hearing, molecular genetics and physiology of brain tumors.</td>
</tr>
<tr>
<td>NSG:8498</td>
<td>Neurosurgery On Campus</td>
<td>arr.</td>
<td>Clinical clerkship; individually arranged by student with departmental approval.</td>
</tr>
<tr>
<td>NSG:8499</td>
<td>Neurosurgery Off Campus</td>
<td>arr.</td>
<td>Arranged by student with departmental approval.</td>
</tr>
</tbody>
</table>