Spinal Cord Injury

Course No: 295.4102.A.01

Semester: Full, Year: 2015-2016

Course Level: BA, Course Year: 4

Number of credits: 1

Course type: lecture and laboratory

Hours every week: 2

Course Lecturer: Ms. Zahava Davidow

Contact details: By appointment via e-mail: zdavidow@research.haifa.ac.il

Prerequisites: Neurological Rehabilitation

Course overview:

The course teaches basic theoretical knowledge of assessment and treatment of spinal cord injury patients according to stages in the rehabilitation process. The subjects to be discussed include factors causing spinal cord injury, scaling methods of injury severity, determination of treatment objectives, tailoring of treatment methods to the patient, and patient’s coping with disabilities.

Teaching methods:

Lectures, illustrative video clips and movie, visit to "Tel Hashomer" rehabilitation center, independent reading of course material

Course aims:

At the end of the course the student will:

- Be familiar with injury characteristics at various spinal cord levels.
- Be able to recognize problems that might delay the rehabilitative process of the spinal cord patient.
- Be familiar with principles of spinal cord injury assessment and determination of treatment objectives.
- Be familiar with basic treatment principles of spinal cord injury.
- Understand the spinal cord injury patient’s coping methods with his or her sexuality.
Course outline (by weeks):

<table>
<thead>
<tr>
<th>Meeting / date</th>
<th>Class</th>
<th>Hours</th>
<th>Subjects of study</th>
<th>Teaching methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td>8:30-10:00</td>
<td>• Introduction: the significance of spinal cord injury &lt;br&gt;• Classification of the injury &lt;br&gt;• Causes for spinal cord injury</td>
<td>lecture</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>10:15-11:45</td>
<td>• The systems involved in spinal cord injury &lt;br&gt;• Complications of spinal cord injury patients</td>
<td>lecture</td>
</tr>
<tr>
<td>II</td>
<td>3</td>
<td>8:30-10:00</td>
<td>• Factors which might affect rehabilitation</td>
<td>lecture</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>10:15-11:45</td>
<td>• Meeting with a person with a disability</td>
<td>guest lecture</td>
</tr>
<tr>
<td>III</td>
<td>5</td>
<td>group A 8:30-10:00</td>
<td>• Exercise class group A</td>
<td>exercise</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>group B 10:15-11:45</td>
<td>• Exercise class group B</td>
<td>exercise</td>
</tr>
<tr>
<td>IV</td>
<td>7</td>
<td>8:30-10:00</td>
<td>• Injury characteristics at various spinal cord levels &lt;br&gt;• High lesion quadriplegia</td>
<td>lecture+video</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>10:15-11:45</td>
<td>• Assessment of a spinal cord injury patient</td>
<td>lecture+video clips</td>
</tr>
<tr>
<td>V</td>
<td>9</td>
<td>8:30-11:45</td>
<td>• Treatment objectives and techniques in spinal cord injury patients at various rehabilitation stages: &lt;br&gt;  o Treatment: ADL of spinal cord injury patients &lt;br&gt;  o Treatment: standing and walking &lt;br&gt;  • Movie: Paraplegic “Footprints in the snow”</td>
<td>lecture+video clips</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td>video film</td>
</tr>
<tr>
<td>VI</td>
<td>11</td>
<td>group B 8:30-10:00</td>
<td>• Exercise class group B</td>
<td>exercise</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>group A 10:15-11:45</td>
<td>• Exercise class group A</td>
<td>exercise</td>
</tr>
<tr>
<td>VII</td>
<td>13</td>
<td>8:30-10:00</td>
<td>• Discussion of observations from “Tel Hashomer” &lt;br&gt;• Spinal cord injury research</td>
<td>discussion lecture</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>10:15-11:45</td>
<td>• Bowel and bladder control &lt;br&gt;• Sexual ability and sexual adaptation among spinal cord patients</td>
<td>lecture</td>
</tr>
</tbody>
</table>
Course Requirements and Students’ Evaluation:

- Mandatory attendance at all meetings
- Final exam (passing grade: 60)
- Participation in practical classes
- Reading of course material
- Active participation at meetings

The course is on-line:
The course site includes:

- Course syllabus
- Power-point presentations of course lectures
- Required reading material (partial)
- Examination form for spinal cord injury patients

References:

Textbooks:


Books:

Articles:


(All of the following articles are available on course site)

- [www.prenhall.com/somers](http://www.prenhall.com/somers) * "Spinal Segment Innervation of the Extremities"

  * Chapter 14: "Bowel and Bladder Management"


*Changes may occur and oral or written messages will be posted, if necessary, during the semester.*