Course Title: Grid and Cluster Computing Environments

<table>
<thead>
<tr>
<th>Course Type: Main</th>
<th>Unit Type: Theoretical</th>
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<tbody>
<tr>
<td>Units: 3</td>
<td>Teaching Hours: 48</td>
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<tr>
<td>Project: None</td>
<td>Prerequisites: Distributed Systems, Advanced Compilers</td>
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Objectives:
This course examines grid and cluster computing; including software architecture and resource management at grid level which are of paramount importance in distributed computing and software development.

Course Syllabus:
1. An introduction to grid and cluster computing
2. Preparation and adaption of algorithms for grids
3. Software tools and middleware for grids
4. Resource management in grid networks
5. Security in grids
6. Indigenization of grid computing
7. Data Management in grid networks
8. Examples of toolkits and software platforms in grids

References: