**POKHARA UNIVERSITY**

**Master of Science in Hydropower Engineering program**

**Curricular Structure**

The program is developed to produce highly skilled technical human resources with full capacity to plan and design hydropower projects, with due appreciation and consideration of hydrological, sedimentological, geotechnical, socio-environmental, and climate change issues for sustainability of the project, in harmony with nature. The graduates of the program are expected to be able to work in interdisciplinary teams, and conduct independent research. This is a two-year program spread over four semesters. A student needs to successfully complete 45 credit hours of course work and 15 credit hours of thesis work for graduation.

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| **Semester I** |
| **Course Code** | **Course Description** | **Credit Hours** |
| HYD 511 | Advanced Hydrology | 4 |
| HDP 511 | Advanced Hydraulics  | 4 |
| HDP 512 | Geotechnical Engineering for Hydropower | 4 |
| HDP 513 | Planning and Implementation of Hydropower | 2 |
|  |  | **14** |
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| **Semester II** |
| **Course Code** | **Course Description** | **Credit Hours** |
| HDP 551 | Design of Hydraulic Structure | 4 |
| SED 551 | Sedimentation Engineering | 4 |
| RMT 551 | Rock Mechanics and Tunneling | 3 |
| ENV 551 | Geographical Information System / Remote Sensing | 3 |
|  | Elective 1 | 3 |
|  |  | **17** |
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| **Semester III** |
| **Course Code** | **Course Description** | **Credit Hours** |
| HDP 611 | Project Work: Feasibility Study of a Hydropower Project | 4 |
| ENV 611 | Environmental and Social Impact Assessment  | 3 |
| RCH 611 | Research Technique | 4 |
|  | Elective 2 | 3 |
|  |  | **14** |
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| **Semester IV** |
| **Course Code** | **Course Description** | **Credit Hours** |
| CMP 691 | Thesis | 15 |
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