Education for SDGs specific courses on sustainability

University of Poonch Rawalakot offers the following **full degree programs supporting sustainable development education**:

1.   Bachelor of Education (2.5 and 1.5 years) program (SDG-4)

2.   M.Sc.(Hons.) and PhD. in. Horticulture (SDG-2)

3.   M. Sc. Program in Food Science and Technology (SDG-2)

4.   M.Sc. Power and Energy System Engineering (SDG-7 and SDG-9)

Bachelor of Education (SDG-4):

The goal of education is to nurture students into proactive individuals who leverage their knowledge, talents, and acquired skills to support their own well-being, contribute to the welfare of others, and contribute to the progress of humanity in areas such as equality, equity, justice, and harmony. The program's aims and objectives include:

1. Contributing to the advancement of education, with a primary focus on teacher education.
2. Cultivating contemporary teaching skills and techniques.
3. Instilling a sense of responsibility in individuals.
4. Enhancing the problem-solving abilities of prospective teachers.
5. Producing proficient and well-prepared teachers for elementary and secondary education.

M.Sc. Power and Energy System Engineering (SDG-7 and SDG-9)

This program is designed for graduate engineers aspiring to pursue a career in the electrical power industry. It enhances your understanding of electrical power and energy systems, providing comprehensive insights into the latest advancements and techniques within the field. The curriculum is enriched by leveraging the extensive expertise of the Pakistan power industry, recognized globally for its leadership in decarbonizing power. The program addresses both the challenges and opportunities inherent in this dynamic sector.

M.Sc. Electrical Engineering	
Power and Energy System Engineering	
Course Code	**LIST OF COMPULSORY COURSES**
EE-5001	Research Methodology
EE-5002	Seminar

Course Code	**LIST OF AREA ELECTIVE**
EE-5101	Computational Method for Engineers

EE-5102	Linear Programming and Optimization
EE-5103	Linear Systems
EE-5204	Power System Modelling and Analysis
EE-5104	Random Variables and Stochastic Processing
EE-5206	Advanced Power System Analysis
EE-5108	Advanced Digital Signal Processing
EE-5208	Advanced High Voltage Engineering
EE-5209	Power System Stability and Control
EE-5210	Computational methods in power system analysis
EE-5211	Flexible AC Transmission System
EE-5212	High voltage DC Transmission System
EE-5213	Distribution System Modeling and Analysis
EE-5214	Advanced Power System Operation and Control
EE-5215	Power Generation Economics
EE-5216	Power System Restructuring
EE-5217	Advanced Power System Transmission
EE-5218	Power System Reliability
EE-5219	Advanced Smart Grid
EE-5220	Power System Transients
EE-5221	Power Quality
EE-5117	Nanophotonics and Metamaterials
EE-5222	Modeling and Simulation of Power System Components
EE-5223	Artificial Intelligence Techniques in Power System
EE-5224	Advanced Power System Protection
EE-5225	Digital Signal Processing in Power System
EE-5226	Insulation Coordination in Power Systems
EE-5227	Energy Management
EE-5228	Energy Audit
EE-5229	Advanced Renewable Energy Systems
EE-5230	Distributed Generation
EE-5231	Condition Monitoring Techniques
EE-5232	Advanced Electrical Machines and Drives
EE-5233	Advanced Power Electronics
EE-5234	Modeling and Simulation of Electrical Machines
EE-5235	Special Purpose Electrical Machines
EE-5236	Advanced Electrical Machine Design
EE-5237	Maintenance and Troubleshooting of Electrical Machines
EE-5126	Advanced Control Systems
EE-5238	Photovoltaic Systems
EE-5239	Power System Planning
EE-5240	Integration of Green Energy sources with power system
EE-5241	Optimization techniques in power systems
EE-5242	Advanced topics in power system
EE-5243	Power Electronic Converters
EE-5244	Advanced Power Distribution
EE-5245	Fault Tolerant Power System
EE-5246	Energy and Environment

EE-5247	Energy Informatics

Course Code	Thesis
EE-6001	Thesis

Link:
https://upr.edu.pk/downloads/prospectus-2022-23