POKHARA UNIVERSITY
Faculty of Science and Technology
School of Engineering

M.Sc. in Structural Engineering

Master of Science in Structural Engineering

Pokhara-30, Kaski, Nepal

Program at a Glance

Program	**:** M.Sc. in Structural Engineering
Duration	**:** 2 Years / 4 Semesters
Location	**:** School of Engineering, Pokhara University
Mode	**:** Full-time
Established	**:** 2017
Focus	**:** Structural & Earthquake Engineering
Degree	**:** Master of Science in Structural Engineering
Total Credits	**:** 60

Program Overview

Recognizing the need for highly qualified structural engineering professionals to support post-earthquake reconstruction and build safer communities following the 2015 Gorkha Earthquake, Pokhara University launched the M.Sc. in Structural Engineering Program at the School of Engineering in 2017.
The program focuses on the analysis, design, construction, assessment, and rehabilitation of safe and resilient structures, with strong emphasis on research, innovation, and professional practice.

Program Highlights

- Specialized education in Structural and Earthquake Engineering
- Strong emphasis on research, innovation, and practical learning
- Exposure to modern structural analysis and design tools
- Expert lectures by national and international professionals
- Workshops, seminars, presentations, and project-based learning
- Opportunities for research and publication in national and international journals
- Field visits and practical exposure to major infrastructure projects

Curricular Structure and Course Cycle –Revised Curriculum 2026

Semester I			**Semester II**		
Course Code	Course Title	Credit Hours	Course Code	Course Title	Credit Hours
STR 521	Advanced Structural Analysis	4	STR 551	Finite Element Method	3
STR 522	Structural Dynamics	3	STR 552	Earthquake Engineering and Seismic-Resistant Design	3
STR 523	Advanced Solid Mechanics	3	ASM 553	Advanced Structural Materials	3
GTH 524	Soil Dynamics and Foundation Engineering	4		Elective I	3
STR 525	Computational Methods	3		Elective II	3

Semester III			Semester IV		
Course Code	Course Title	Credit Hours	Course Code	Course Title	Credit Hours
STR 621	Advanced Structural Design	4	STR 691	Thesis	12
STR 622	Structural Engineering Laboratory	3			
STR 623	Research Project Work	3			
	Elective III	3			
	Elective IV	3			

Elective Courses

Elective Courses I–IV (3 Credits Each)			
Course Code	Course Title	Course Code	Course Title
STR 631	Design of Bridge Structures	STR 639	Performance-Based Design
STR 632	Design of High-Rise Structures	STR 640	Prestressed Concrete Design
STR 633	Design of Hydraulic Structures	STR 641	Seismic Risk Assessment
STR 634	Design of Industrial Structures	STR 642	Structural Condition Assessment and Retrofitting
STR 635	Design of Masonry Structures	STR 643	Structural Control and Base Isolation
STR 636	Fracture Mechanics	STR 644	Structural Health Monitoring
STR 637	Nonlinear Structural Analysis	STR 645	Sustainable Engineering Materials
STR 638	Optimization Techniques in Structural Design	STR 646	Theory of Plates and Shells

Program Objectives

The M.Sc. in Structural Engineering program aims to produce graduates who are able to:

- Analyze and design a wide range of structural systems using appropriate materials, codes, and modern engineering principles.
- Plan, manage, and implement structural engineering projects independently using appropriate analytical and design tools.
- Conduct independent and innovative research and contribute to the advancement of structural engineering knowledge and practice.

Eligibility

Applicants must hold a Bachelor's degree in Civil Engineering or an equivalent qualification, with at least 16 years of formal education and a minimum CGPA of 2.0 or equivalent.

Academic and Learning Environment

The program provides a research-oriented, interactive, and practice-based learning environment. Students engage in advanced coursework, design projects, research activities, technical presentations, seminars, workshops, and interaction with experienced national and international experts.

Research and Publication

The M.Sc. in Structural Engineering Program has developed a strong culture of research and academic publication. Since its establishment in 2017, students have published more than 12 papers in Q1 journals, over 18 papers in Q2 journals, and more than 24 papers in reputed national and international non-Scopus journals. These achievements demonstrate the program's strong commitment to research excellence, innovation, and knowledge creation.

Field Visits & Practical Exposure

The School regularly organizes field visits to major structural engineering and infrastructure projects across Nepal, providing students with practical exposure to structural systems, construction practices, inspection, assessment, and modern engineering technologies.



Field Visit to Kathmandu–Terai/Madhesh Fast Track Road Project



Field Visits to Various Bridge Sites in and around Pokhara Valley

Workshops, Seminars & Expert Lectures

Students regularly participate in technical workshops, seminars, conferences, and guest lectures delivered by leading national and international experts. These activities broaden students' knowledge and provide exposure to current developments, emerging technologies, research trends, and professional practices in structural engineering.

Career Opportunities

Graduates of the M.Sc. in Structural Engineering can pursue careers as:

- Structural Design and Consulting Engineers
- Seismic and Earthquake Engineering Specialists
- Bridge and Infrastructure Engineers
- Construction and Project Engineers/Managers
- Researchers, Academics, and University Lecturers
- Government Engineers and Engineering Consultants
- PhD Scholars and Research Professionals

Alumni Success & Career Pathways

Our graduates have successfully pursued diverse career pathways after completing the M.Sc. in Structural Engineering. Several have advanced to doctoral studies and research at leading international universities and research institutions in countries including Italy, Canada, the United States, and Australia**.** Others are engaged in government services, engineering industries, private companies, consulting firms, and academic institutions, while some have established their own engineering consultancy practices. Many graduates are contributing to structural engineering practice, research, academia, infrastructure development, and professional services in Nepal and abroad**.**

Students by Batch



Batch 2017: Anand Dev Bhatta • Bikash Subedi • Binod Bastola • Bishal Baral • Deepak Raj Kandel • Dipesh D.C. • Govind Khatri • Krishna Ghimire • Kshitiz Lamichhane • Pharam Singh Thapa • Prajwal Giri • Ram Krishna Acharya • Ramesh Subedi • Rewati Baruwal • Ram Giri



Batch 2018: Ananda Poudel • Anil Bhujel • Badri Adhikari • Bharat Khanal • Bibek Baral • Dirgha Pd. Acharya • Mahendra K.C. • Narayan Ghimire • Neeraj Kumar Chhetri • Prabin Thapa • Rajan Gautam • Ram Chandra Gautam • Shishir Pandey • Sulata Dhakal • Tekkan Pandit



Batch 2019: Amrit Regmi • Gangalal Yadav • Jyoti Thapa • Krishna Chapagain • Manoj Gautam • Pratima Acharya • Rabindra Godar • Ramji Tripathi • Ranjit Mahato • Samrat Poudel • Sarad Adhikari • Suman Subedi • Sunam Shakya • Sunil Adhikari • Suraj Shakya



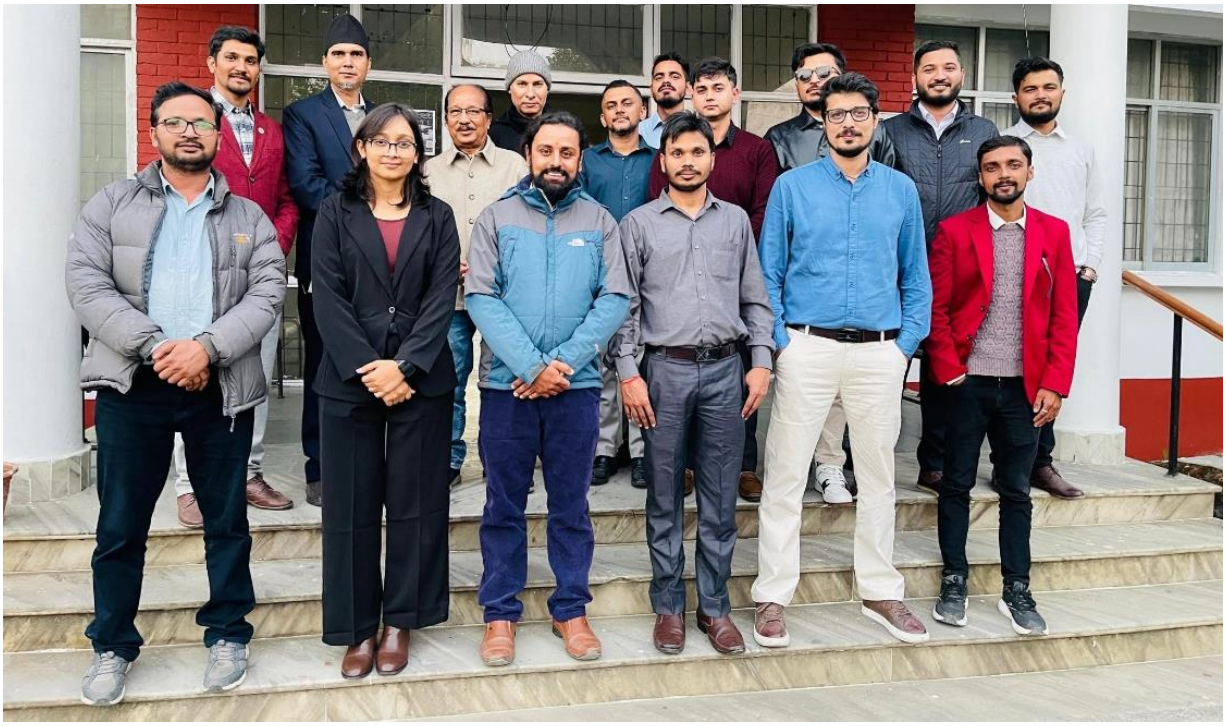
Batch 2020: Ashok Sapkota • Bibek Kumar Khartri • Binay Ligal • Deepak Raj Pathak • Pawan Acharya • Prabin Acharya • Pradip Adhikari • Prakash Timilsina • Prem Narayan Adhikari • Ramesh Kumar Paikara • Sagar Acharya • Sailesh Chhetri • Suraj Bahadur Timilsina • Suyog Bhandari • Sweata Dhakal



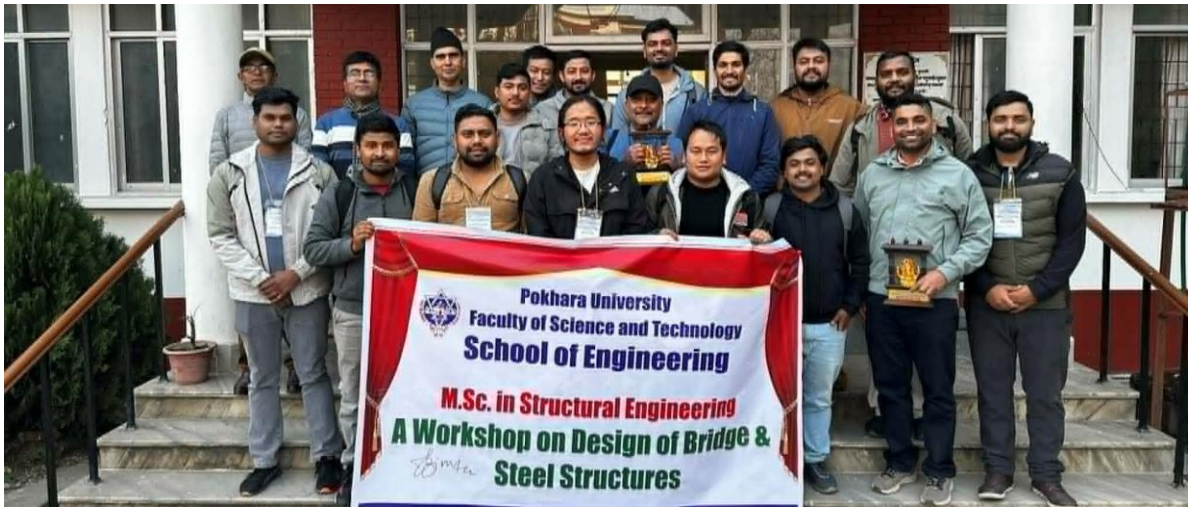
Batch 2021: Amit Poudel • Dipesh Jaisi Poudel • Ek Raj Khanal • Jiwan Paudel • Kiran Thapa • Nolaraj Poudel • Parash Kumar Khand • Prakash Poudel • Pratish Aryal • Prayas Karki • Sagar Aryal • Sudip Gautam • Suraj Sedai • Surjan Tiwari



Batch 2022: Akshay Kumar Chaudhary • Bikash Bhandari • Buddhi Rana Magar • Hemanta Raj Poudel • Kamana Lamsal • Laxman Bhujel • Md. Tamanna Aalam • Prabhat Baral • Rabin Bastola • Sagar Ranabhat • Sandesh Thapa • Saroj Subedi • Suman Dhakal • Sushanta Singh Khadka



Batch 2023: Abhinav Gautam • Aroj Poudel • Biliya Sharma • Binod Giri • Deviraj Neupane • Dinesh Poudel • Pintu Kumar Sah • Pradip Baral • Prinshu Subedi • Rahul Raj Pandey • Research Thapa • Sarad Regmi • Sudio Ghimire • Suraj KC



Batch 2024: Amrit Timilsina • Avishek Kr. Mandal • Bibek Dip Chalise • Bijay Chapagain • Dharmendra Kr. Singh • Fabin Gurung • Kaushal Chandra G.C. • Krishna Kumar Gupta • Manoj Bhandari • Nabin Bista • Rijan Marahatha • Rupesh Man Pradhan • Sandip Gurung • Saugat Paneru • Sunil Rana



Batch 2025: Bijay Subedi • Bipin Deep Darlamee • Bishal Thapa • Krishna Khadka • Naresh Baral • Prabesh Bhandari • Pradhumna Poudel • Sabita Acharya • Sachin Lamichhane • Sameer Tripathi • Sandeep Kshetri • Sandhya Bhujel • Sanskriti Sharma • Sidartha Pandey • Smriti Pant

Faculty and Academic Experts

Core Faculty – Structural Engineering

SN	Name	Designation	Qualification
1	Govind Prasad Lamichhane	Professor	PhD in Civil Engineering (Specialization: Structural Engineering)
2	Hemchandra Chaulagain	Associate Professor	PhD in Civil Engineering (Specialization: Structural Engineering)
3	Rajendra Aryal	Assistant Professor	MSc in Civil Engineering (Specialization: Structural Engineering)
4	Anand Dev Bhatt	Assistant Professor	MSc in Structural Engineering
5	Badri Adhikari	Assistant Professor	MSc in Structural Engineering
6	Prakash Devkota	Assistant Professor	PhD in Civil Engineering (Specialization: Structural Engineering)

Supporting Faculty – Civil Engineering

SN	Name	Designation	Qualification
1	Prakash Bahadur Adhikari	Associate Professor	MSc in Geotechnical Engineering

Interdisciplinary Faculty

SN	Name	Designation	Qualification
1	Yagya Nath Rimal	Assistant Professor	PhD in Computer Science
2	Hem Raj Pandey	Assistant Professor	PhD in Mathematics

For Admission & Further Information

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