

FARWESTERN UNIVERSITY
FACULTY OF ENGINEERING
OFFICE OF THE DEAN
MAHENDRANAGAR, KANCHANPUR, NEPAL

Admission Guidelines
For
MSc in Construction Project Management 2023
(with latest amendment)

1.0 Introduction

Far Western University (FWU) was established in 2010 through an Act of Parliament as a government funded university. Its main vision is to become a top-tier academic institution in the country through an academic excellence, creative innovation and research based education. The strategic location of the University at the Sudurpaschim province does not only support improving the access of local people to higher education but also creates dynamism on the overall development of the region. The central office of the university is located at Bhimdatta Municipality of Kanchanpur district. Since its inception, FWU has been striving to fulfill its responsibility of making higher education accessible to the people of this region. Adopting the principle of "everyone has the right to education, and higher education shall be equally accessible to all", the Far Western University has extended its constituents campuses in the nine districts of the Sudurpaschim Province to deliver diverse educational programs, both in undergraduate and graduate level, through nine faculties including Humanities and Social Sciences; Education; Management; Science and Technology; Engineering; Agriculture; Law; Health Sciences and Natural Resource Management.

2.0 Faculty of Engineering: Vision, Mission and Core Principles

2.1 Vision:

To become a center of excellence in engineering education and research, and produce globally competent professional minds upholding human values and ethics to serve the society by taking part in industrial, scientific innovation, academic and entrepreneurship activities within the country and abroad.

2.2 Mission:

The mission of the Faculty of Engineering is to:

- Deliver quality education and achieve excellence in teaching-learning and research activities through the state-of- the art, high technology engineering educational programs
- Provide students the innovative and entrepreneurial skills to meet the need of the industry and society, and make them able to compete successfully in a global economy.
- Build a culture of collaborative efforts and facilitate effective interactions of engineering students, faculty and management with the industry personnel, alumni, academicians of premier institutions and local, national and international community.

- Develop partnership with the government institutions, private sector, and academic institutions in Nepal and abroad specifically to enhance teaching-learning activities, research, mutual exchange programs and creation of new engineering knowledge and technology transfer.
- Achieve excellence in application-oriented research in the selected areas of technology to contribute to the development of the Sudurpaschim Province and the nation.

2.3 Values and Core Principles:

The culture of Faculty of Engineering (FOE) is a shared system of values, beliefs and attitudes that shapes and influences behaviour. These values are adhered and expressed through actions and activities of the FOE specifically to continuously improve the teaching-learning environment. The core operating principles of FOE are (i) **Academic excellence;** (ii) **Respect and commitment towards diversity and inclusiveness;** (iii) **Integrity, accountability, and ethical decision making;** (iv) **Lifelong learning;** (v) **Innovation, creativity and academic Freedom;** and (vi) **Sustainability**

2.4 Academic Programmes at Faculty of Engineering

With its aim to provide quality technical education and expand the capacity of the university, Faculty of Engineering at FWU started Bachelor of Civil Engineering Program (4 Year Program) in 2014, Bachelor of Computer Engineering (4 Year Program) in 2021 and Master of Science Degree in Construction Project Management (MSc CPM) from the academic year 2023 (2079/80) at School of Engineering. All the academic programs in engineering education are run under the Faculty of Engineering.

3.0 Details of Master of Science Degree in Construction Project Management (MScCPM) at Faculty of Engineering

The academic council of Far Western University has approved the course structure and syllabus of the Master of Science in Construction Project Management in 2076 BS. The Far Western University offers the Master of Science (M.Sc.) program in Construction Project Management with an aim to produce highly qualified human resource capable of carrying out professional works and conducting independent research in Construction Project Management. The key

objective of the programme is to provide the students the technical and analytical skills of Construction Project Management and acquaint them with advanced methods of Construction Project Management. The graduates of the program will be able to (i) carry out higher studies and independent research; and (ii) practice professionally as a Project Manager in construction projects. The minimum period for completion of the M.Sc. in Construction Project Management Programme is 4 semesters for full time students; however the maximum period a student is allowed to complete the program is 8 semesters (4 years).

SN	Programme	Duration		Number of Students
		Year	Semester	
1	MSc in Construction Project Management	2	4	30

4.0 Entry Requirements

4.1	Requirements for score/grade
	<ul style="list-style-type: none"> • Candidates should have studied Bachelor of Engineering Degree in Civil or Civil and Rural or Hydropower or Agriculture or Architecture from the recognized academic institutions. • Candidates should have scored a minimum of 45% or CGPA of 2 (in a scale of 4) in undergraduate level.

5.0 Number of Seats in MSc CPM Programme

Altogether 30 students will be admitted in the MSc Construction Project Management programme in each academic year. Students can apply for admission in different categories (i) Regular, (ii) Full-Pay and (iii) Sponsored.

SN	Programme	Regular	Full-Pay	Sponsored	Total
1	Construction Project Management	4 (2 Open, 1 Woman and 1 Staff)	18	8	30
	Total	4	18	8	30

Regular Category: Altogether 4 students will be admitted in regular category including 2 in open, 1 woman and 1 staff quota. For staff quota, the applicant must be a staff/teacher of FWU. The staff/teacher must be in a permanent tenure at FWU or as a Full-Time Contract Based service with at least 5 years of continuous working experience at FWU.

Full-Pay Category: Altogether 18 students will be admitted in Full-Pay category

Sponsored Category: Altogether 8 students will be admitted in Sponsored category

6.0 Application Submission Process

6.1	Publication of entrance notice: The entrance notice shall be published usually in 30 days ahead of the entrance schedule /date
6.2	Mode of application submission: The application shall be submitted physically or online
6.3	Application processing fee: Application processing fee shall be NRs 3000. Far Western University may increase application fee by up to 10% per year.
6.4	Application submission pack: The application submission pack shall include: <ul style="list-style-type: none">○ Citizenship certificate in case of Nepali citizen and copy of passport and/or national identity document in case of foreign students.○ Attested copies of certificates (transcript/mark-sheet/grade-sheet, provisional certificate, transfer certificate, and character certificate) of SEE (or equivalent), 10+2 examination of NEB (or equivalent classes), and BE degree.○ Candidates applying for staff quota must submit a proof of FWU staff currently working at Far Western University.○ Equivalence certificate of academic degrees received from foreign countries.

7.0 Scholarship Provision

Far Western University offers Scholarship to 4 (four) students in MSc degree in Construction Project Management programme under different categories including merit-based scholarship, woman and staff quota.

Scholarship category and selection criteria:

7.1	Merit list of students who pass the Entrance Examination will be prepared first, and then students will be selected for scholarship and admission on the basis of their entrance score/merit list.
7.2	Two students will be provided merit-based scholarship (Top Rank Holders)
7.3	One student will be provided scholarship in woman category
7.4	One student will be provided scholarship on staff-quota. For staff quota, the candidate must be a staff/teacher of FWU. The staff/teacher must be in a permanent tenure at FWU or as a Full-Time Contract Based service with 5 years of continuous working experience at FWU.
7.5	Candidates should fill the application form appropriately and must be readable.
7.6	Scholarship will not be provided if a student does not satisfy the criteria defined for the scholarship for woman and staff quota. If a scholarship-quota remains vacant (i.e. no one is eligible to receive scholarship on any one of designated quotas), the scholarship will not be transferred to other scholarship quotas.
7.7	For Full-Pay category, merit list of students will be published based on their scores secured in the entrance examination.
7.8	Candidates applying for sponsored quota must have submitted the necessary documents including Letter of Intent for sponsoring the candidates from the registered organization. For sponsored quota, merit list of students will be published based on their scores secured in the entrance examination.

7.9	If the sponsored quotas are not fulfilled, the remaining number of vacant sponsored seats will be transferred to Full-Pay quota.
7.10	If two or more students secure similar marks in the Entrance Examination, and happen to have similarity in other criteria, the merit list of these students will be published based on their overall grade received in undergraduate degree. If the overall grades in undergraduate level are also same along with similar entrance scores and other criteria, the highest score on the subjects (i) Mathematics, (ii) Professional Practice, and (iii) Engineering Economics in undergraduate level will be considered respectively for preparing the merit list.
7.11	If any scholarship-quota remains vacant due to none or lower number of applicants, or if none of the applicants pass the entrance examination, the vacant seat of the scholarship-quota will be added to the list of Full-Pay category.
7.12	The Admission Committee publishes a list of successful students in each category, and calls for admission within the designated date and time. If the students from the first admission list do not admit within the designated date and time, the students from the waiting list will be provided an opportunity for admission, specifically based on their merit scores. Publication of a list of successful students in each category will be continued until the seats are fulfilled within the designated time-period.

8.0 Fee Structure

The fee arrangement for Master's Programme is listed in the table below.

Descriptions	Regular	Full-Pay	Sponsored	Remarks
Tuition fee (Per Semester)	20000	70000	120000	
In Semester Exam Fee (Per Semester)	1000	1000	1000	
Seminar/ Workshop fee	2000	2000	2000	
Student welfare fund	1000	1000	1000	
Sport fee	500	500	500	
Union Fee	200	200	200	
Lab Deposit	1000	1000	1000	
Library Deposit	3000	3000	3000	
Institution Development Fund	4500	4500	4500	
ID Card Fee	200	200	200	
At the time of Admission	33,400	83,400	133,400	Students under sponsored category should have to pay the fee for full course duration (4 semesters) at the time of admission.
Total (for 4 semesters)	96400	296,400	496,400	

FWU Registration fee and end semester examination fee will be charged as per the rules and regulation of the office of the Controller of Examination. Except the tuition and In- semester examination fee, other fees and deposits are charged once at the time of admission.

The candidates under sponsored category have to pay the fee for full course duration (two years) at the time of admission. The payment of fees by the candidate under sponsored category shall be received only by Cheque of the sponsoring agency. The cash transaction shall not be entertained.

The given fee structure is for completing the minimum specified courses within two years of academic session. Candidates failing to complete the courses within the specified time frame shall be charged additional fee as per the university regulation.

9.0 Admission Cancellation and Refund of Deposits

Students can apply for the cancellation of their admission to the MSc CPM programme only within the designated period of admission process. With valid reason, if a student applies for cancellation of admission within the given time period, the coordinator of Entrance Examination or Head of the School of Engineering may cancel admission, and call students for admission from the waiting list. If the admission of students is cancelled, they will be refunded back up to 30% of total tuition fee deposited during the time of admission. Application for cancelation of admission received after the designated time period (**one week after a student gets admitted**) will not be entertained.

10.0 Entrance Exam Implementation Model

10.1	Schedule for entrance exam: Regular (main or first) entrance exam shall be generally conducted within 3 months from the date of publishing results of BE at FWU.
10.2	Admission committee: An Admission Committee (or Entrance Examination Committee) headed by Dean or Assoc./Deputy/Asst. Dean or Head of School of Engineering or a Prof./Assoc. Prof./Senior Asst. Professor, and consisting of maximum of 7 members shall be formed to implement the MSc CPM entrance examination.
10.3	Number of questions: Total number of questions shall be of 100.
10.4	Duration of exam: A minimum duration of entrance exam shall be of 2 hours
10.5	Types of questions: All the questions shall be multiple-choice question (MCQ)
10.6	Provision for re-entrance examination: University may conduct re-entrance examination if needed.
10.7	Provision for the international students: University allows foreign students to the entrance examination

11.0 Evaluation and Results Publication Process

11.1	Weightage of entrance examination for merit list: The merit list shall be prepared with 100% weightage to the score secured by a student in the entrance examination.
11.2	Threshold to include in merit list: A minimum threshold to include in the merit list shall be 45%. However, in special circumstances, the university may re-visit the threshold based on the decision of the decision-making authority of the University.
11.3	Time-line for publishing results: Results shall be published within 7 working days after completion of the entrance exam.
11.4	Medium for publishing results: Results of the entrance examination shall be published on the website of the Faculty of Engineering and the notice board of the School of Engineering.

12.0 Framework and Contents of Entrance Examination Syllabus

Section	Course	Weightage
A	Mathematics	25
B	Fundamentals of Construction	25
C	Construction Planning and Management	25
D	Structure and others	25
		100

Section A: Mathematics [25 Marks]

1. Probability and Statistics - Probability, Mean, Median, Mode, Standard deviation, Variance
2. Algebra - Basic algebraic techniques, Matrix algebra, Linear equation, Inequalities, Basics of Vector Algebra.
3. Geometry and Mensuration - Angles, Triangles, Pythagorean theorem, Parallelogram, Trapezoid, Area, Volume, Surface area, Quadrilateral, Circle, Graph, Y-intercept.
4. Calculus – Differentiation, Integration, several variables including applications with coordinate geometry, trigonometry, differential equations and other branches of mathematics.

Section B: Fundamentals of Construction [25 Marks]

1. Surveying – Compass, Levelling, Traversing, Contouring, Setting out of horizontal and vertical curves, GPS and GIS.
2. Building materials and technology - ABC classification of construction materials, Benefits of technology, Impact of technology on culture, tradition, social values, environment and society.
3. Estimating and costing - Type of estimate, Analysis of rates, Detailed estimate of two

storied building and Earthwork in road construction, Property valuation.

- 4. Geotechnical engineering** – Soil classification, permeability and seepage, Shear strength, Earth pressure, Stability of slopes and retaining wall, Soil exploration, Bearing capacity, Foundation types and uses of piles.

Section C: Construction Planning and Management [25 Marks]

- 1. Project engineering** - Characteristics and classification of project, Techniques of project formulation, Project proposal and project appraisal, Project planning, Project scheduling with Bar chart, CPM and PERT, Elements of project monitoring and control, Project management information system, Project risks and its management, Project finance, Capital budgeting techniques.

- 2. Construction management** - Construction planning, Resources management, Time cost tradeoff, Tendering process, Contract document, , Conditions of contract, Construction equipment, Selection of appropriate equipment, Site management, Personnel management, Health and safety at work place, Purpose and importance of specification, Payment of bill, Contract administration, Conflict and dispute management.

- 3. Professional practice** - Ethics and profession, Nepal engineering council Act, Code of conduct, Duties of an engineer/architect, Liability and negligence, Building code and bylaws, Labor Act of Nepal, Intellectual property right.

- 4. Engineering economics** - Interest and time value of money, Net present value, Internal rate of return, Method of engineering economic analysis, Methods of depreciation.

Section D: Structure and others [25 Marks]

- 1. Structure** - Stress and strain, Shear force and bending moment diagram, Single and double reinforced section, Design criteria of foundation, short column, beam, slab and trusses. Concrete types and uses, Mix design, Quality control, Strength, Testing, Corrosion of reinforcement bars in concrete.

- 2. Transportation** - Classification of roads (NRS), Road alignment, Geometric elements of roads and design parameter, Road materials, Hill roads, Flexible pavements, Rigid pavement, Drainage system.

- 3. Water resources** – Fundamentals of hydrology (The hydrological cycle, water balance components, unit hydrograph, flood hydrology); Fundamentals of fluid flow and pressure

- 4. Water supply and sanitary** - Sources of water, Quality of water, Water treatment process, Reservoir and distribution system. Sewage, Sewers, Sewage disposal, Solid waste management.