The Fatorda Salesians Society's

DON BOSCO COLLEGE OF ENGINEERING

FATORDA, MARGAO - GOA 403 602

(Approved by AICTE, DTE Goa & Affiliated to Goa University)

Date: 16/08/2024

NOTIFICATION

GOA UNIVERSITY – QUALIFYING ENTRANCE TEST (GU-QET) 2024-25
ADMISSIONS TO MASTER OF ENGINEERING PROGRAMMES

Applications for admission to the Master of Engineering Programmes offered for the academic year 2024-25 as per notification bearing Ref. No.: GU/Acad-Admissions/CAC/2024-25/56 dated 14/08/2024 shall be accepted by Don Bosco College of Engineering, Fatorda. Interested candidates are informed to visit the College website for details.

Sr.No.	MASTER OF ENGINEERING PROGRAMMES	COLLEGE
1	M.E. Computer Aided Structural Engineering	DON BOSCO COLLEGE OF ENGINEERING, FATORDA, MARGAO.
2	M.E. Data Sciences	

Application schedule	20th August 2024 to 26th August 2024
Admission Date	28th August 2024 (Without GU-QET)
Goa University - Qualifying Entrance Test (GU-QET) Schedule	02nd September 2024 & 03rd September 2024
Admission Date	10th September 2024 (for candidates with qualifying marks at GU-QET)
Last date for Cancellation of Seats with Full Refund as per AICTE	11 September 2024.
Last date for commencement of classes for First year students as per AICTE	15 September 2024

(A) ELIGIBILITY

Students with the Bachelor of Engineering (B.E.) Degrees (as per **Annexure I**) are eligible to seek admission to above mentioned M.E. programmes, provided they have 50% marks in Bachelor's Degree (45% marks in case of candidates belonging to SC/ST/OBC(NCL) or equivalent CGPA (as per AICTE Handbook 2024-27) **WITHOUT** the Goa University - Qualifying Entrance Test (GU-QET). The merit list will be based on candidates with GATE score followed by candidates with total marks from Sem V to VIII or equivalent CGPA. Candidates who have qualified GATE (valid score) shall be given preference. The merit list for non-GATE candidates shall be prepared based on Sem V to VIII marks or equivalent CGPA. **Seats remaining vacant shall be offered to candidates from other Disciplines**.

(B) ELIGIBILITY FOR GOA UNIVERSITY-QUALIFYING ENTRANCE TEST

(1) Candidates who have completed 4 year UG Programme in Engineering or 3 year UG and 2 year PG programme or 5 year Integrated programme (UG+PG) in Science-Technology-Engineering-Mathematics (STEM) Programmes shall be eligible for admission to Master of Engineering Programmes in other discipline provided the candidate qualifies in the Goa University - Qualifying Entrance Test (GU-QET), as per the Curriculum & Credit Framework for Postgraduate Programme of University Grants Commission.

(2) Eligibility of 50% marks in Bachelor's degree or Master's degree (45% marks in case of candidates belonging to SC/ST OBC (NCL) category) or equivalent CGPA are eligible to take the GU-QET.

(3) Merit list for such candidates shall be prepared based on marks obtained in the GU-QET. If more than one candidate has the same score in GU-QET, then candidate having higher total marks/CGPA in Master's Degree (MSc (Sem I-IV)) /BE (Sem V to VIII) will be considered **for admission against the vacant seats available, if any, after students from the merit lists of programmes mentioned in Sl. No. (A) are given admission.**

(C) ADMISSION

(i) Candidates shall refer to the college website or contact college administration:

1. Mr. Nevil Soares   Designation: Deputy Registrar   Mob. No. 9420977971

Sr. No.	Course	Contact Person	Mobile No.
1	M.E. Data Sciences	Dr. Vivek Jog	+91 9168215303
2	M.E. Computer Aided Structural Engineering	Prof. Shruti Jambhale	+91 9923749268

Application fees for admission to be paid to the college.

(ii) The GU-QET fees for candidates eligible under Sl.No. (B) is as follows, and to be paid to the colleges at the time of submission of applications:
- INR 700 in case Un-reserved/ EWS/OBC * per subject/specialization.
- INR 350 in case of SC/ST of Goa. * per subject/specialization.
- No fees shall be charged from Persons with Disability.

*Candidates applying for admission under these categories shall be required to submit a valid certificate to that effect issued by the Officer of the rank of the Deputy Collector or any other authorized officer as notified by the Government of Goa.

(iii) Candidates will be permitted to apply for a maximum of TWO programmes for GU- QET.

(iv) The GU-QET will be for a duration of TWO hours. The question paper will be of 100 marks. The question paper pattern will be Multiple Choice Question (MCQ) type. There will be no NEGATIVE marking. The minimum qualifying marks is 40 marks. The syllabus for GU-QET is given at **Annexure-II.**

(v) The venue and time of the GU-QET will be notified by the Goa University.

(D) SEAT MATRIX

Sr. No	Name of Programme	Intake
1)	M.E. Data Sciences	18
2)	M.E. Computer Aided Structural Engineering	18

Reservation of seats for admission to the various Programmes of study will be based on the Reservation Policy of the Goa State Government and will be notified on the college prospectus.

(E)   DURATION OF THE PROGRAMME

The duration of the above programmes will be for TWO years. However, students registered as per Goa University curriculum (either for all the courses of that semester or part of them and hence take longer time to complete the programme) it is a regular Programme with a duration of THREE years. The college authorities reserve the right to provide either or both options depending on the faculty and infrastructure availability.

In case of queries, the candidates may contact the respective officials as per Sl. No. C(i).

Sd/-
(Dr. Neena Panandikar)
Principal

Copy: to
1. Director DBCE
2. Registrar
3. Deputy Registrar
4. HOD, Computer Engineering
5. HOD, Civil Engineering
6. Accounts
7. College Website

ANNEXURE-I

(A) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET for M.E. in Computer Aided Structural Engineering.
1. Building and Construction Technology
2. Civil and Rural Engineering
3. Civil Engineering
4. Civil Engineering with Computer Application
5. Civil Engineering and Planning
6. Structural Engineering
7. Civil Environmental Engineering
8. Civil Engineering (Construction Technology)
9. Civil and Infrastructure Engineering
10. Civil Technology
11. Civil Engineering (Public Health Engineering)
12. Environmental Planning
13. Construction Automation
14. Construction Engineering
15. Construction Engineering and Management
16. Construction Technology
17. Construction Technology and Management
18. Geospatial Technology and Geoinformatics
19. Geo Informatics
20. Environment Engineering
21. Civil and Environmental Engineering
22. Civil Engineering (Environmental Engineering)
23. Civil Engineering Environment and Pollution Control
24. Environment Engineering
25. Environmental Engineering
26. Energy and Environmental Management
27. Environmental Science and Engineering
28. Environmental Science and Technology
29. Civil Engineering (Environmental Engineering)
30. Civil and Water Management Engineering

(B) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET for M.E. in Data Sciences.
1. Artificial Intelligence (AI) and Data Science
2. Artificial Intelligence and Machine Learning
3. Computer and Communication Engineering
4. Computer Science and Applied Mathematics
5. Computer Engineering
6. Computer Engineering (Software Engineering)
7. Computer Engineering and Application
8. Computer Science and Biosciences
9. Computer Science and Design

10. Computer Networking
11. Computer Science and Engineering
12. Computer Science and Social Sciences
13. Cyber Physical Systems
14. Computer Science
15. Computer Science and Business Systems
16. Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology)
17. Computer Science and Medical Engineering
18. Computer Science and Technology
19. Robotics and Artificial Intelligence
20. Computer Science and Systems Engineering
21. 3-D Animation and Graphics
22. Advanced Computer Application
23. Computer Science and Engineering (Internet of Things)
24. Computer Science and Engineering and Business Systems
25. Computer Science and Information Technology
26. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
27. Computer Science and Engineering (Cyber Security)
28. Computer Science and Engineering (Networks)
29. Computer Science and Engineering (Data Science)
30. Computer Science and Engineering (Artificial Intelligence)
31. Computer Technology
32. Computing in Computing
33. Computing in Multimedia
34. Computing in Software
35. Electrical and Computer Engineering
36. Electronics and Computer Science
37. Electronics and Computer Engineering
38. Mathematics and Computing
39. Software Engineering
40. Information and Communication Technology
41. Information Engineering
42. Information Science and Engineering
43. Information Science and Technology
44. Information Technology
45. Information Technology and Engineering

SYLLABUS FOR GU-QET

(A) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Civil Engineering) for the following M.E. program

▪ **M.E. in Computer Aided Structural Engineering**

Equilibrium of Forces, Analysis of trusses by method of joints and method of sections, Simple lifting machines – Calculation of mechanical advantage, Velocity ratio and efficiency, determination of deflection of beam by using Macaulay's method, Moment Area method and Conjugate beam method, Shear force & bending moment diagrams for various types of beams and loadings – determination of point of zero shear, points of contraflexure and maximum bending moment, direct & bending stresses, stresses in an element, principal stresses and planes; degree of indeterminancy, Analysis of beams and frames by using Moment Distribution, Slope Deflection methods, Kani's method and matrix methods, Various types of loads on structures, Properties of Concrete, mix design, concrete composition and admixtures; Limit state theory of RC design, Design of reinforced Concrete, beams, columns, slabs, footings, Prestressed Concrete members; Steel Structures, tension , compression and flexural members , bolted and welded connections, Three phase relationships of soil, Index properties of soils, shear strength of Soils, permeability and seepage, Flow net, compaction, consolidation, Boussinesq and Westergaard theory of stress distribution in soils, Stress distribution on a horizontal and vertical plane in soils, pressure bulb, Concept of Effective stress and pore pressure in soils, bearing capacity definitions, estimation of bearing capacity by Terzaghi's, Meyerhof's and IS method, Estimation of earth pressure, Estimation of settlement of soils; Types of shallow and deep foundations, proportioning of shallow foundations, estimation of load carrying capacity of single pile and pile groups, Ground Improvement Techniques for weak soils, stability analysis of finite and infinite slopes.

(B) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Computer Engineering) for the following M.E. program

• **M.E. in Data Sciences**

Programming in C: Data Types, variables, constants, operators, expressions, input and output, Decision making and branching, and Arrays. Digital Electronics: Decimal, binary, octal, hex number systems and their inter conversions, Binary arithmetic, Introduction to BCD codes, Gray codes, Excess-3 codes & ASCII codes, Basic Gates-NOT, OR, AND, Universal Logic Gates-NOR, NAND, Combinational Logic Circuits, Boolean Laws and Theorems, Reducing Boolean Expressions, Converting AOI to NAND/NOR Logic. Operating Systems: Operating System Structure, Operating System Services, Types of System calls. Process scheduling, Inter-process communication. Multithreading models, Threading issues. CPU Scheduling Algorithms: FCFS, SJF, SRTF / SRTN, Priority Scheduling, Round Robin Scheduling. Computer Networks: The OSI and TCP/IP Reference Models. Theoretical Basis for Data Communication. The Maximum Data Rate of a Channel. Data Link Layer Design Issues, Framing, Error Control, Flow Control Error-Correcting Codes, Error – Detecting Codes. Sliding Window protocol.