

ಮಂಗಳೂರು
MANGALORE



ವಿಶ್ವವಿದ್ಯಾನಿಲಯ
UNIVERSITY

(Accredited by NAAC)

ಕ್ರಮಾಂಕ/ No. : MU/ACC/CR 13/2021-22/A2

ಕುಲಸಚಿವರ ಕಛೇರಿ

ಮಂಗಳಗಂಗೋತ್ರಿ - 574 199

Office of the Registrar

Mangalagangothri - 574 199

ದಿನಾಂಕ/Date: 25.11.2021

NOTIFICATION

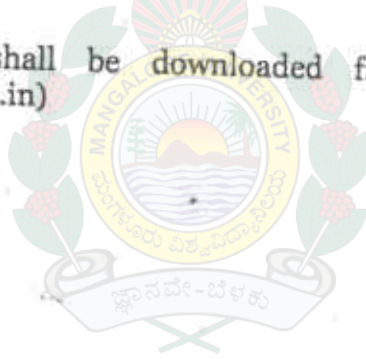
Sub: Revised syllabus of M.Sc. Marine Geology programme.

Ref: Academic Council approval vide agenda

No.: ಎಸಿಸಿ.ಶ್ಯ.ಸಾ.ಸ.2:20(2021-22) dtd 27.10.2021.

The Revised syllabus of M.Sc. Marine Geology programme which is approved by the Academic Council at its meeting held on 27.10.2021 is hereby notified for implementation with effect from the academic year 2021-22.

Copy of the Syllabus shall be downloaded from the University Website
(www.mangaloreuniversity.ac.in)



REGISTRAR

To,

1. The Chairman, Dept. of Marine Geology, Mangalore University.
2. The Chairman, BOS in Marine Geology, Mangalore University.
3. The Registrar (Evaluation), Mangalore University.
4. The Superintendent (ACC), O/o the Registrar, Mangalore University.
5. The Asst. Registrar (ACC), O/o the Registrar, Mangalore University.
6. Guard File.

30/11/21

Revision of the Syllabus for MSc course in Marine Geology

Preamble

The recently approved syllabus during the last year has been revised by keeping in view of the main objectives (*skills, employability and entrepreneurship*) of the New Education Policy 2020. Nevertheless, this syllabus retains the major part of the Choice Based Credit System introduced in 2016, revised with minor changes in 2018 and revamped during the special BoS Meeting on 28th January 2020 with the expertise opinion from Dr. N. Maran, Deputy Director-General, Geological Survey of India (GSI), and HOD, MCSD, Mangalore and Dr. A.C. Dinesh, Director, MCSD, GSI, Mangalore. Similarly, the expertise opinions were sought from the external BoS members. This syllabus not only enriches knowledge to students, but also aimed for uplifting societal conditions, but also underscores (a) the latest developments in different branches of the subject, (b) increases students teacher interactions, (c) encouraged to undergo internships after the regular offline classes as well as during the vacation, (d) motivate students develop the confidence and expertise on the subject, (e) internships during vacation and carry out the IV Semester dissertation/project work (at national research institutions and multi-national companies), (f) perform better in competitive examinations, interviews to get employment, research positions and (g) overseas fellowships/employment.

Program learning outcomes

Marine Geology is one of the interdisciplinary branches of Earth Science that deals with the origin and evolution of ocean basins, including paleoclimate and paleoceanography, and natural resources exploration. Nevertheless, the course includes also the earth, atmospheric (meteorology and climatology) and ocean sciences including remote sensing and geographic information system (GIS), and global positioning system (GPS) in three semesters followed by intense fieldwork, visit to R & D labs./institutes related to the curriculum prescribed and carry out dissertation/project work in the IV semester. The outcomes of the programme of MSc in Marine Geology are given below:

- PO01 Acquiring of sustainable knowledge in different fields of earth, atmosphere and ocean sciences to take up any work related to the earth science.
- PO02 Skills development to learn, monitor and understand the spatio-temporal variability of vast data/big data pertaining not only to the earth system science but also those collected by satellites by using advanced remote sensing and processing data in geographic information system techniques.

- PO03** Dissertation/project work either in the parent university or outside R & D labs, MNCs in any one of the aspects of the curriculum in order to help students to take up independent work after the course. This will help them in research / managerial positions in their employment career.
- PO04** Experience gained during fieldwork, visiting R & D labs and visiting Oceanographic Research Vessels / Ships will motivate students to choose the career after the M.Sc. course.
- PO05** Water, next to air is an important requirement for the sustenance of life. Skills developed during the course will help students to take up the work related to water harvesting methods and different exploration techniques to tap water and mineral resources, and
- PO06** Due to population explosion and advancement of civilization, the earth's environments are under stress. The knowledge gained from subjects like environmental geology, geochemistry, and meteorology / climatology is useful to work on impact assessment and offer suggestions for mitigation.

Program specific outcomes

The syllabus of MSc, Marine Geology is quite unique as compared to other courses related to earth science, geology, geophysics, meteorology and oceanography, as it covers most of the syllabus prescribed for the NET and the UPSC geologist's examination. The successful students are able to get employment either in government (universities, undergraduate colleges, engineering institutes) and private companies including MNCs, research position in universities/research institutes. Based on the knowledge acquired over two years, students can start consultancies/take up an independent project as well as chances to get overseas research fellowships and employment.

Programme structure along with the percentage of Hard Core, Soft Core and Elective Paper:

Hard Core	Soft Core	Open Elective	Total credits
56 (60.87%)	30 (32.61%)	6 (6.52 %)	92(100 %)

Semester	Paper (Theory and Laboratory)	Instruction hrs/Week Lectures / Practicals	Duration of Exam (hrs)	Marks			Credits
				IA	Exam	Total	
First Semester: Five Hard Cores and One Soft Core							
MGH 401	Mineralogy and Geochemistry	4	3	30	70	100	4
MGH 402	Petrology	4	3	30	70	100	4
MGH 403	Stratigraphy and Palaeontology	4	3	30	70	100	4
MGP 404	Mineralogy and Geochemistry (Lab, hard core)	8	4	30	70	100	4
MGP 405	Petrology (Lab, hard core)	8	4	30	70	100	4
MGS 406	Geomorphology and Geodynamics	3	3	30	70	100	3
Semester Total						600	23
Second Semester: Two Hard Cores, Four Soft Cores and One Open Elective							
MGH 451	Structural Geology and Hydrogeology	4	3	30	70	100	4
MGP 452	Structural Geology and Palaeontology (Lab, hard core)	8	4	30	70	100	4
MGS 453	Environmental Geology	3	3	30	70	100	3
MGS 454	Meteorology and Climatology	3	3	30	70	100	3
MGS 455	RS and Photogrammetry	3	3	30	70	100	3
MGP 456	Hydrogeology and Geostatistics and Comp. Appl. (Lab, soft core)	6	3	30	70	100	3
MGE 457	Geo-sciences (Open Elective)	3	3	30	70	100	3
Semester Total						700	20 + 3
Third Semester: Two Hard Cores, Five Soft Cores and One Open Elective							

MGH 501	Oceanography - I (Physical and Chemical)	4	3	30	70	100	4
MGH 502	Oceanography - II (Geol and Biological)	4	3	30	70	100	4
MGS 503	Exploration and Engineering Geology	3	3	30	70	100	3
MGS 504	Economic Geology and Mining Geology	3	3	30	70	100	3
MGS 505	GIS and GPS	3	3	30	70	100	3
MGP 506	Remote Sensing and GIS (Lab.)	6	3	30	70	100	3
MGP 507	Physical Oceanography and Surveying (Lab, soft core)	6	3	30	70	100	3
MGE 508	Ocean and Atmospheric Science (Open Elective)	3	3	30	70	100	3
Semester Total						800	23 + 3
Fourth Semester:							
MGP 551	Project Work - Dissertation					300	12
	Viva - Voce					100	4
	Field Work and Field Report					100	4
Semester Total						500	20
Grand Total						2600	86+6*

Note: MG - Marine Geology, H - Hard core, S - Soft core, P - Practical / Project Work, and E - Elective.
Course / Credit Pattern:

Semester Credits	Hard Core (H)	Soft Core (S)	Elective (E)	Practical / Project Work (P)	Total Credits
First	12	3	--	8 (H)	23
Second	4	9	3	4 (H), 3 (S)	20 + 3
Third	8	9	3	--, 6 (S)	23 + 3
Fourth	--	--	--	20 (H)	20
Total	24	21	6*	32 + 9	86 + 6*

Total Credits from all the Four Semesters = 23 + 23 + 26 + 20 = 92

Total Hard Core Credits = 24 (T) + 12 (P) + 20 (Project) = 56 = 60.87%

Total Soft Core Credits = 21 (T) + 9 (P) = 30 = 32.61%,

*Open Elective Credits = 6 = 6.52% (Not to be considered for CGPA calculation)

MANGALORE UNIVERSITY

NO : MU/REG/SYN(S4)/59/2021-13112

Office Of the Registrar
Mangalagangothri- 574199

Date:18.09.2021

TO,

1. Prof. B. R. Manjunath, Chairman P.G BOS in Marine Geology and Professor, Department of Marine Geology, Mangalore University, Mangalagangothri – 574 199.
2. Prof. R. Shivanna, Professor, Department of Marine Geology, Mangalore University, Mangalagangothri – 574 199.
3. Prof. K. S. Jayappa, Professor, Department of Marine Geology, Mangalore University, Mangalagangothri – 574 199.
4. Prof. Syed Ashfaq Ahmed, Professor, Department of Applied Geology, Kuvempu University, Shankaraghatta, Shivamogga – 577 451.
5. Dr. Thamban Meloth, Scientist, Department of Physical Oceanography, NCAOR, Headland Sada, Vasco-da-Gama, Goa – 403 804.

Sir,

Sub: Regular Meeting of P.G Board of Studies in Marine Geology– reg.

Ref: Letter from the Chairman of Board of Studies dtd. 08.09.2021.

With reference to the subject cited above, I am directed to state that the regular meeting of the **PG Boards of Studies in Marine Geology** for the year 2021-22 will be held on **23.09.2021 at 10.30 A.M** in the Department of Marine Geology, Mangalore University, Mangalagangothri – 574 199.

The following matters will be discussed in the meeting:

1. Preparation of a Panel of Examiners for M.Sc and PhD course work exams,
2. Assesment of previous years question papers and results.
3. Any other matters reffered by the University to the Board.

I request you to make it convenient to attend the meeting.

If you wish to move any resolution pertaining to the matter within the powers of the Boards, it shall be sent to the Chairman before the date of the meeting.

T.A/D.A will be paid as per University rules.

(Draft Approved By Registrar)

Yours faithfully,


FOR REGISTRAR

Copy to:

1. The Registrar (Evaluation), Mangalore University, Mangalagangothri.
2. The Finance officer, Mangalore University, Mangalagangothri.
3. Assistant Registrar, Academic Section, Mangalore University, Mangalagangothri.

Mangalore University
Department of Marine Geology
Mangalagangothri-574199

No. MU/DMG/BoS/2021-2022

26th September 2021

The Registrar
Mangalore University
Mangalagangothri

Sir,

Sub: Submission of the **Proceedings BoS Meeting**
and **revised syllabus of M.Sc. in Marine Geology**

Ref: MU/REGSYN(S4)/59/2021-13112, DTD. 18TH Sept. 2021.

With reference to the above, the online meeting was convened at the BoS Chairman Room, Department of Marine Geology on 23rd Sept. 2021, at 10.30 a.m.

The external members Prof. Syed Ashfaq Ahmed and Dr. Thamban Meloth have joined meeting online. The agenda was discussed in detail and provided in the proceedings attached along with the panel of examiners as well as the revised syllabus.

I am enclosing the e-mail copy of the approval of external members for your kind perusal.

Thanking you,

Yours faithfully,


B.R. Manjunatha

2/
13/10/21

Proceedings of the P.G. Board of Studies in Marine Geology, meeting held online at the BoS Chairman Room in the Department of Marine Geology on 23rd Sept. 2021, at 10.30 a.m.

Agenda:

1. Preparation of the panel of examiners for M.Sc. and PhD course work exams,
2. Assessment of previous year question papers and results,
3. Any other matter referred by the University to the Board

Members Present:

Prof. Syed Ashfaq Ahmed

: Member (online)

Dr. Thamban Meloth

: Member (online)

Prof. Shivanna

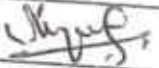
: Member, Chairman, Dept. of Marine. Geology

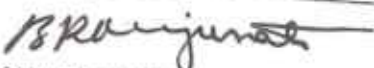
Member not present: Prof. K.S. Jayappa

The Chairman has welcomed members for the meeting. The agenda were discussed in detail and resolved the following recommendations to the university:

- The Board has scrutinized and updated the Panel of Examiners for the M.Sc. and PhD courses in Marine Geology for the year 2022-2023.
- Verified and approved the format of the question paper. Members expressed satisfaction of results as the grade ranges from 7.40 to 9.03.
- The incorporation of the Research and Publication Ethics (RPE) paper in the PhD course work has brought to the notice of members.
- The revised Syllabus of MSc in Marine Geology has been approved by keeping in view of main objectives of the New Education Policy (skills, employability and entrepreneurship), and
- Request the University to revive the geology subject for BSc course at the University Constituent College Mangaluru during this academic year, which was kept in abeyance.

The meeting was concluded with vote of thanks by the BoS Chairman.

Name	Position	Signature
Prof. T. S. Suresh	: Member	Not invited as he retired
Dr. Thamban Meloth	: Member	approved online
Prof. Syed Ashfaq Ahmed	: Member	approved online
Prof. Shivanna	: Member	
Prof. H. Gangadhara Bhat	: Member	Not invited as he as he retired

B.R. Manjunatha 
CHAIRMAN (BOS)
Department of Marine Geology
Mangalore University
Mangalagangothri - 574 199.