Name of the Institute: Symbiosis Institute of Geoinformatics
Name of the Programme: M.Sc. (Geoinformatics)
Revision of syllabus

Institute Code	Institute Name	Programme Code	Program Name	Catalog Course Code	Catalog Course Name	Course Type	Batch 2020	Batch 2021	Change in T-Code Yes / No	Change in course/Nature	Change in Pedagogy	Change in evaluation	Change in instruction method	Add on course	Changes Yes: Revised No: Not Revised
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	F7008	Cloud based Application Development	Core	Base PS	Dropped	Yes						Yes
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	F7024	Smart Mapping	Core	Base PS	Dropped	Yes						Yes
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	GEN002	Project	Core	Base PS	Dropped	Yes						Yes
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	GEN005	Non Catalog Courses	Core	Base PS	Dropped	Yes						Yes
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T0100	Research Publication	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T2239	Business Communication	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T2573	Organizational Behaviour	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T3010	Essentials of Internet and Web Technologies	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T4005	Integrated Disaster Management	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7039	Geoinformatics Applications in Natural Resource Management	Elective	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7041	Global Navigation Satellite System	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7049	Spatial Data Base Management	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7053	Surveying & Cartography	Core	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7155	Urban Planning and Rural Development	Elective	Base PS	Dropped	Yes						Yes
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7156	Disaster Scenario mapping	Elective	Base PS	No Change	No						No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7161	Principles of Database Management System	Core	Base PS	No Change	No						No

702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7163	Spatial Analysis	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7165	GIS Application Design	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7167	Spatial Modeling	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7168	GIS Project Management	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7169	Mobile GIS	Elective	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7174	Applied Statistics	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7175	Computer Fundamental and Cyber security	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	T7370	Research Methodology in GIS	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7147	Principles of GIS	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7148	Principles of Remote Sensing	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7149	Geo Image Processing	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7150	Geospatial Application in Agriculture	Elective	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7151	Web GIS	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7152	R for Spatial Science	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7158	Geoinformatics Applications in Facility and Utility Management	Elective	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7397	Photogrammetry	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7440	Advance Python Programming for Spatial Analytics	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7474	Programming for Enterprise GIS	Core	Base PS	No Change	No								No
702	SIG, Pune	70241	M.Sc. (Geoinformatics)	TE7475	Python for Geospatial Technology	Core	Base PS	No Change	No								No

| 702 | SIG, Pune | 70241 | M.Sc. (Geoinformatics) | TE7527 | Application of Geospatial Technology in Urban Development | Elective | | Added | Yes | | | | | Yes | Yes |
| 702 | SIG, Pune | 70241 | M.Sc. (Geoinformatics) | TH4272 | Certificate in COVID-19 Care for the Community | Core | | Added | Yes | | | | | Yes | Yes |

Total No. of courses	39
Revision in No. of courses	7
Revision %	17.95

Vidhhya

Dr. Vidya Patkar.
(Deputy Director,)
SIG

Percentage of Programmes where syllabus revision was carried out from AY 2021-2023

Name of the Institute: Symbiosis Institute of Geoinformatics

Name of the Programme: M.Sc. (Geoinformatics)

Academic Year	Particulars	Page Numbers
2021-2022	Revision Letter	5-6
2020-2021	Revision Letter	**7**
	Circular of CBCS	8
2021-2022	Approved programme structure	9-13
2020-2021	Approved programme structure	14-18

SYMBIOSIS
INTERNATIONAL UNIVERSITY

Dr.Vidya Patkar <deputydirector@sig.ac.in>

Fwd: Revision Lettter

Dr.T.P Singh <director@sig.ac.in>   Thu, Aug 4, 2022 at 4:00 PM
To: "Dr.Vidya Patkar" <deputydirector@sig.ac.in>

---------- Forwarded message ---------
From: **head_academics@siu.edu.in** <head_academics@siu.edu.in>
Date: Thu, Aug 4, 2022 at 3:09 PM
Subject: Revision Lettter
To: <director@sig.ac.in>, <coe@siu.edu.in>, <dyregistrar@siu.edu.in>, <abhijeet.panmand@siu.edu.in>, <head_academics@siu.edu.in>, <ar_academics@siu.edu.in>

SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)
(Established under Section 3 of the UGC Act, 1956)
Re-accredited by NAAC with 'A' grade (3.58/4) | Awarded Category – I by UGC

SIU/ACAD/2022/3856   Date: 04/08/2022

To
The Director
Symbiosis Institute of Geoinformatics, Pune

Subject: Revised Programme Structure.

Dear Sir/Madam,

Reference to SIU letter no SIU/U-110(SIG, Pune)/2021/4297 dated 25/10/2021 regarding approval of programme structure of batch 2021-2023. The details of the revision are as follows:

Academic Year : 2021-2022

Sr.No.	Programme	Batch
1	Master of Science (Data Science & Spatial Analytics) (Revision 02)	2021-2023

The revised programme structure supersedes the previously approved programme structures referred in the above letters.

You are requested to download the same using your Login Credentials the link is :

http://eduwiz.intechsolutionspune.in/eduwiz/login.html

Path: Academics->Catalogue->Programme Structure-> View Course Structure -> Select Institute -> Select Academic Year -> Select Programme -> Select Batch -> Select Revision-> Show Course Structure -> Print Programme Structure.

Thanking you.

Sincerely,

Dr. Pravin Dange
Head- Academics

Copy to: Controller of Examinations, SIU

1 Of 1

--
Prof. (Dr.) T.P. Singh
PhD., M.Phil. (Engg.), M.Sc.,MS (Paris University VI)
Chairman ISG Pune
Professor and Director | Symbiosis Institute of Geo-informatics | Symbiosis International (Deemed University) (SIU) | 5th Floor, Atur Centre, Model Colony | Pune, 411016, India | Ph : 91 20 25672841/43 Ext. 111 | Fax: 91 20 25672842

Vidwan : _https://vidwan.inflibnet.ac.in/profile/277383
ResearcherID : https://publons.com/researcher/GLQ-7008-2022/
ORCiD : https://orcid.org/0000-0002-9375-3495
GoogleScholar : https://scholar.google.com/citations?hl=en&user=IVeDeYkAAAAJ

SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act 1956)
Re - accredited by NAAC with 'A' Grade
Founder: Prof. Dr. S. B. Mujumdar, M.Sc.,Ph.D. (Awarded Padma Bhushan and Padma Shri by President of India)

SIU/U-110(SIG, Pune)/2020/27   Date: 04/01/2021

To
The Director
Symbiosis Institute of Geoinformatics, Pune

Subject: Revised Programme Structure.

Dear Sir/Madam,

Reference to SIU letter no SIU/U-110(SIG, Pune)/2020/2338 (A) dated 22/07/2020 regarding approval of programme structure of batch 2020-2021. The details of the revision are as follows:

Academic Year : 2020-2021

Sr.No.	Programme	Batch
1	**Master of Science (Data Science and Spatial Analytics)**	2020-2021

The revised programme structure supersedes the previously approved programme structures referred in the above letters.

http://eduwiz.intechsolutionspune.in/eduwiz/login.html

Path: Academics->Catalogue->Programme Structure-> View Course Structure -> Select Institute -> Select Academic Year -> Select Programme -> Select Batch -> Select Revision-> Show Course Structure -> Print Programme Structure.

Thanking you.

Sincerely,

Dr. Pravin Dange
Head- Academics

Copy to: Controller of Examinations, SIU

SYMBIOSIS
INTERNATIONAL UNIVERSITY
(Established under section 3 of the UGC Act 1956 vide notification No. F.9-12/2001-U.3 of the Govt of India)

Accredited by NAAC with 'A' Grade

FOUNDER : PROF. DR. S. B. MUJUMDAR M.Sc. Ph.D.
(Awarded Padma Bhushan by President of India)

Notification No.SIU/28/565 dated 13 July 2015

Sub: Implementation of Choice Base Credit System from Academic year 2015-16

It is hereby notified for the information of all the concerned that as proposed by University Grant Commission vide letter D.O.No. F.1-1 (Secy) dated 12th November 2014, the Board of Management of Symbiosis International University in its meeting held on 25th February 2015 vide resolution no.   A 15 has resolved to adopt the Choice Base Credit System (CBCS) to all programmes offered by Symbiosis International University in its Constituents / Departments from the academic year 2015- 16.

As per CBCS, grade point will be allotted to each letter grade on a 10 point grade scale with grades denoted by letters O, A+, A, B+, B, C, P, F and AB.
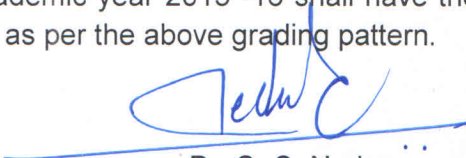
Letter Grade	Proportion	Grade Point
O (Outstanding)	Top 3%	10
A+ (Excellent)	12%	9
A (Very Good)	21%	8
B+ (Good)	28%	7
B (Above Average)	21%	6
C (Average)	12%	5
P (Pass)	Bottom 3%	4
F (Fail)		0
AB (Absent)		0

Standard of Passing: A student has to pass both Internal and External Examination separately i.e. obtain minimum Grade Point of 4.00. A Grade Point less than 4.00 will be treated as Grade 'F'.

The Programme structure of all the programmes of academic year 2015 -16 shall have the assessment, slandered of passing and award of degree as per the above grading pattern.

SIU/28/15/ 3508
Dated: 13 July 2015

Dr. S. C. Nerkar
Registrar

Copy for information to:-

Hon'ble Chancellor, Vice Chancellor, Principal Director, Symbiosis Society, Sr. Advisor to Vice Chancellor, Directors of Constituents and Departments of SIU, Officers of Symbiosis International University, Officers of Symbiosis Society.

Gram.: Lavale, Tal.: Mulshi, Dist.: Pune - 412 115, Maharashtra, India.

Tel.: +91-20-3911 6200 Fax.: +91-20-3911 6206 ● Email.: registrar@siu.edu.in ● Web.: www.siu.edu.in

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2021-23

1.	**OBJECTIVE**	To create the professional human resource in the field of Geospatial Technology; equipped with IT and information management skills to cater to the global Geo-Informatics industry requirements.			
2.	**DURATION (IN MONTHS)**	24 (Full Time)			
3.	**INTAKE**	60			
4.	**RESERVATION**	**I.Within the sanctioned intake**	**a) SC (In Percentage)**	**b) ST (In Percentage)**	**c) Differently abled (In Percentage)**
			15	7.5	3
		II.Over and above the sanctioned intake	**a) Kashmiri Migrants (In Seats)**	**b) International Students (In Percentage)**	
			2	15	
5.	**ELIGIBILITY**	Graduate in Engineering, IT, Science, Computer Science, Agriculture, Geography, Commerce and Management from any recognised University/ Institution of National Importance with a minimum of 50% marks or equivalent grade (45% Marks or equivalent grade for Scheduled Caste/ Scheduled Tribes)			
6.	**SELECTION PROCEDURE**	Personal Interaction and Writing Ability Test			
7.	**MEDIUM OF INSTRUCTION**	English			
8.	**PROGRAMME PATTERN**	Semester			
9.	**COURSE & SPECIALIZATION**	As per Annexure A			
10.	**FEE**		**Academic Fee p.a**	**Institute Deposit**	**Total**
		Indian Students	242000	20000	262000
		International Students (USD equivalent to INR)	365000	20000	385000
11.	**ASSESSMENT**	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 60% internal component and 40% component as external [University] exam			
12.	**STANDARD OF PASSING**	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum			

		CGPA of 4 out of maximum of 10 CGPA for the programme
13.	**AWARD OF DEGREE/ DIPLOMA/ CERTIFICATE**	Master of Science (Geoinformatics) will be awarded at the end of semester IV examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.

| 14. | **CLASSIFICATION OF CREDITS** |

Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	20	0	0	0	0	2*	20
2	23	0	0	0	0	0	23
3	21	4	0	0	0	1*	25
4	12	0	0	0	0	0	12
Total	**76**	**4**	**0**	**0**	**0**	**0**	**80**

* Satisfactory completion of the non letter grade courses 'Integrated Disaster Management', 'Research Publication''Certificate in COVID-19 Care for the Community' is mandatory for award of degree.

The revised programme structure supersedes the previously approved programme structure dated 19/04/2021 for the programme.

This Programme Structure is aligned with the norms laid down by the University and is approved by the Academic Council.
Hereafter changes (if any) which conform to the policy on "Curriculum Development and Review" would be permissible, subject to revision of the Programme Structure, following the specified processes.

Head - Academics

THIS IS SYSTEM GENERATED DOCUMENT AND REQUIRES NO SIGNATURE.

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2021-23

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
Semester : 1							
Generic Core Courses							
TE7147	0702410101	Principles of GIS		4	120	80	200
TE7148	0702410102	Principles of Remote Sensing		4	120	80	200
T7174	0702410103	Applied Statistics		3	90	60	150
TE7475	0702410104	Python for Geospatial Technology		3	90	60	150
T7175	0702410105	Computer Fundamental and Cyber security		2	60	40	100
T7370	0702410106	Research Methodology in GIS		2	100	0	100
T7053	0702410107	Surveying & Cartography		2	60	40	100
T4005	0702410108	Integrated Disaster Management *		0	0	0	Non Letter Grade
TH4272	0702410109	Certificate in COVID-19 Care for the Community *		0	0	0	Non Letter Grade
		Total		**20**	**640**	**360**	**1000**
Semester : 2							
Generic Core Courses							
TE7149	0702410201	Geo Image Processing		4	120	80	200
TE7397	0702410202	Photogrammetry		4	120	80	200
TE7440	0702410203	Advance Python Programmingfor Spatial Analytics		3	90	60	150
T3010	0702410204	Essentials of Internet and Web Technologies		2	60	40	100
T7041	0702410205	Global Navigation Satellite System		2	60	40	100
T7161	0702410206	Principles of Database Management System		2	60	40	100
T7163	0702410207	Spatial Analysis		2	60	40	100
TE7152	0702410208	R for Spatial Science		2	60	40	100
TE7474	0702410209	Programming for Enterprise GIS		2	60	40	100
		Total		**23**	**690**	**460**	**1150**
Semester : 3							
Generic Core Courses							
T7903	0702410301	Summer Project		4	120	80	200
T7165	0702410302	GIS Application Design		2	60	40	100
T7168	0702410303	GIS Project Management		2	60	40	100
T2573	0702410304	Organizational Behaviour		2	60	40	100
T2239	0702410305	Business Communication		2	100	0	100
T7167	0702410306	Spatial Modeling		2	60	40	100
T7049	0702410307	Spatial Data Base Management		2	60	40	100

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2021-23

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
F7041	0702410308	Citizen Science and Geospatial Technology		2	100	0	100
TE7151	0702410309	Web GIS		2	60	40	100
F7008	0702410310	Cloud Based Application Development		1	50	0	50
T0100	0702410311	Research Publication *		0	0	0	Non Letter Grade
		Total		**21**	**730**	**320**	**1050**
Generic Elective Courses Group-I							
T7169	0702410312	Mobile GIS		2	100	0	100
T7039	0702410313	Geoinformatics Applications in Natural Resource Management		2	100	0	100
TE7158	0702410314	Geoinformatics applications in Facility and Utility management		2	100	0	100
		Total Required Credits		**2**	**100**	**0**	**100**
Generic Elective Courses Group-II							
TE7150	0702410315	Geospatial Application in Agriculture		2	100	0	100
TE7527	0702410316	Application of Geospatial Technology in Urban Development		2	100	0	100
T7156	0702410317	Disaster Scenario mapping		2	100	0	100
		Total Required Credits		**2**	**100**	**0**	**100**
Semester : 4							
Generic Core Courses							
T7812	0702410401	Industry Project		12	360	240	600
		Total		**12**	**360**	**240**	**600**

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2021-23

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester 1	2	18	20	1000
Semester 2	0	23	23	1150
Semester 3	9	16	25	1250
Semester 4	0	12	12	600
Total	**11**	**69**	**80**	**4000**

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2020-22

1.	**OBJECTIVE**	To create the professional human resource in the field of Geospatial Technology; equipped with IT and information management skills to cater to the global Geo-Informatics industry requirements.		
2.	**DURATION (IN MONTHS)**	24 (Full Time)		
3.	**INTAKE**	60		
4.	**RESERVATION**	**I.Within the sanctioned intake**	**a) SC (In Percentage)**	**b) ST (In Percentage)**	**c) Differently abled (In Percentage)**

		I.Within the sanctioned intake	**a) SC (In Percentage)**	**b) ST (In Percentage)**	**c) Differently abled (In Percentage)**
			15	7.5	3
		II.Over and above the sanctioned intake	**a) Kashmiri Migrants (In Seats)**	**b) International Students (In Percentage)**	
			2	15	

5.	**ELIGIBILITY**	Graduate in Engineering, IT, Science, Computer Science, Agriculture, Geography,Commerce and Management from any recognised University/ Institution of National Importance with a minimum of 50% marks or equivalent grade (45% Marks or equivalent grade for Scheduled Caste/ Scheduled Tribes)
6.	**SELECTION PROCEDURE**	Personal Interaction and Writing Ability Test
7.	**MEDIUM OF INSTRUCTION**	English
8.	**PROGRAMME PATTERN**	Semester
9.	**COURSE & SPECIALIZATION**	As per Annexure A

10.	**FEE**		**Academic Fee p.a**	**Institute Deposit**	**Total**
		Indian Students	242000	20000	262000
		International Students (USD equivalent to INR)	365000	20000	385000

11.	**ASSESSMENT**	All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 60% internal component and 40% component as external [University] exam
12.	**STANDARD OF PASSING**	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum

		CGPA of 4 out of maximum of 10 CGPA for the programme
13.	**AWARD OF DEGREE/ DIPLOMA/ CERTIFICATE**	Master of Science (Geoinformatics) will be awarded at the end of semester IV examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.

14. NATURE WISE DISTRIBUTION OF CREDITS

Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	15	0	0	0	0	1*	15
2	26	0	0	0	0	0	26
3	23	4	0	0	0	1*	27
4	12	0	0	0	0	0	12
Total	**76**	**4**	**0**	**0**	**0**	**0**	**80**

* Satisfactory completion of the non letter- grade courses 'Integrated Disaster Management' and 'Research Publication' is mandatory for award of degree.

The revised programme structure supersedes the previously approved programme structure dated 23/07/2020 for the programme.

Programme Structure is approved by the Academic Council subject to its norms & conditions. Any provision in the Programme Structure which violates the basic rules & regulations is deemed to be termed "Null & Void".

Head-Academics

THIS IS SYSTEM GENERATED DOCUMENT AND REQUIRES NO SIGNATURE.

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2020-22

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
Semester : 1							
Generic Core Courses							
T2239	0702410101	Business Communication		2	100	0	100
T2573	0702410102	Organizational Behaviour		2	60	40	100
T7174	0702410103	Applied Statistics		3	90	60	150
T3010	0702410104	Essentials of Internet and Web Technologies		2	60	40	100
T7175	0702410105	Computer Fundamental and Cyber security		2	60	40	100
T7370	0702410106	Research Methodology in GIS		2	100	0	100
T7053	0702410107	Surveying & Cartography		2	60	40	100
T4005	0702410108	Integrated Disaster Management *		0	0	0	Non Letter Grade
			Total	**15**	**530**	**220**	**750**
Semester : 2							
Generic Core Courses							
TE7147	0702410201	Principles of GIS		4	120	80	200
TE7397	0702410202	Photogrammetry		4	120	80	200
TE7148	0702410203	Principles of Remote Sensing		4	120	80	200
TE7475	0702410204	Python for Geospatial Technology		3	90	60	150
T7041	0702410205	Global Navigation Satellite System		2	60	40	100
T7161	0702410206	Principles of Database Management System		2	60	40	100
T7163	0702410207	Spatial Analysis		2	60	40	100
T7168	0702410208	GIS Project Management		2	60	40	100
F7024	0702410209	Smart Mapping		2	100	0	100
F7008	0702410210	Cloud Based Application Development		1	50	0	50
			Total	**26**	**840**	**460**	**1300**
Semester : 3							
Generic Core Courses							
T7903	0702410301	Summer Project		4	120	80	200
T7165	0702410302	GIS Application Design		2	60	40	100
TE7149	0702410303	Geo Image Processing		4	120	80	200
TE7440	0702410304	Advance Python Programming for Spatial Analytics		3	90	60	150
TE7152	0702410305	R for Spatial Science		2	60	40	100
T7167	0702410306	Spatial Modeling		2	60	40	100
T7049	0702410307	Spatial Data Base Management		2	60	40	100

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2020-22

Annexure A

Catalog Course Code	Course Code	Course Title	Specialization	Credit	Internal Marks	External Marks	Total Marks
TE7151	0702410308	Web GIS		2	60	40	100
TE7474	0702410309	Programming for Enterprise GIS		2	60	40	100
T0100	0702410310	Research Publication *		0	0	0	Non Letter Grade
		Total		**23**	**690**	**460**	**1150**
		Generic Elective Courses Group					
T7169	0702410311	Mobile GIS		2	100	0	100
T7039	0702410312	Geoinformatics Applications in Natural Resource Management		2	100	0	100
TE7158	0702410313	Geoinformatics applications in Facility and Utility management		2	100	0	100
		Total Required Credits		**2**	**100**	**0**	**100**
		Generic Elective Courses Group					
TE7150	0702410314	Geospatial Application in Agriculture		2	100	0	100
T7155	0702410315	Urban Planning and Rural Development		2	100	0	100
T7156	0702410316	Disaster Scenario mapping		2	100	0	100
		Total Required Credits		**2**	**100**	**0**	**100**
		Semester : 4					
		Generic Core Courses					
T7812	0702410401	Industry Project		12	360	240	600
		Total		**12**	**360**	**240**	**600**

Symbiosis Institute of Geoinformatics, Pune
Master of Science (Geoinformatics)
Programme Structure 2020-22

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester1	4	11	15	1000
Semester2	3	23	26	1150
Semester3	4	23	27	1250
Semester4	0	12	12	600
Total	**11**	**69**	**80**	**4000**