

Self-Study Report (SSR) - Criterion-1

Information to be submitted by Departments/Directorates/Centres for Each Programme Offered

1	Department/Directorate/Centre/Institute:	Centre of Research for Development (CORD)		
2	Name of the Programme Offered:	Msc. and Ph.D		
3	Departmental website link of the complete/updated syllabus:	https://cord.uok.edu.in/Files/4701b853-a330-4f94-a00e-0155532a0ff/Menu/MICROBIOLOGY_SYLLABUS_SEPTEMBER_2021_CORRECTED_d89050ab-a59e-4de4-ab85-f2819a2728d4.pdf		
4	Number of Courses in the Programme?	30		
5A	Number of New Courses introduced in the Programme since 2019?	9		
5B	List of New Courses introduced since 2019:			
	Course Code	Course Title	Brief Description	
	MIC-20004 GE	Medical Virology	It provides awareness about viruses, their transmission, infection and its management	
	MIC-20401CR	Research based project work, dissertation writing and submission in hard bound form	This component shall inculcate in students the scientific temperament for finding solutions to the research problems	
	MIC-20402CR	Presentation and Viva-voce	The students will make an open presentation defending their project work. Which will inculcate the presentation skills among the students	
	MIC-20404DCE	Designing and drafting a research proposal /Journal Club/Scientific paper writing	It will inculcate in a student to pick up a problem in biological sciences and develop a grant application on the theme under mentorship of allotted supervisor. The recent and advanced scientific papers in high profile journals will be chosen by the students in consultation with mentor teachers and then presented by the student. The presenter is supposed to have all the relevant knowledge of the article.	
	MIC-20001 GE	In vitro Plant Morphogenesis & Regeneration	It helps us in understanding the techniques for mass propagation of plants, creating disease resistant varieties and improving crop yields	
	MIC-20002 GE	Toxicogenomics	It helps us understand how genes respond to toxic substances & providing insights into the molecular mechanism of toxicity.	
	MIC-20207DCE	Industrial Tour	The industrial tours help individuals gain practical insights into real world applications of theoretical knowledge	
	MIC-20003 GE	Analytical Instrumentation	The subject aids in precise and accurate analysis of various substances, contributing to advancements in scientific research.	
	MIC-20303CR	Industrial Microbiology	It plays key role in providing awareness about the production of pharmaceuticals, chemicals, biofuels and how it involves the use of microorganisms in their production	
	MIC-20403DCE	Special Paper*	It provides an opportunity for in-depth exploration and research within a specific area of the subject	
5C	Departmental website link in support of New Courses introduced in the Programme since 2019.	https://cord.uok.edu.in/Files/4701b853-a330-4f94-a00e-0155532a0ff/Menu/MICROBIOLOGY_SYLLABUS_SEPTEMBER_2021_CORRECTED_d89050ab-a59e-4de4-ab85-f2819a2728d4.pdf		
6A	Dates of syllabus revisions during the last five years. (2019-2023)	2020		
6B	Departmental website link in support of syllabus revisions.	https://cord.uok.edu.in/Files/4701b853-a330-4f94-a00e-0155532a0ff/Menu/MICROBIOLOGY_SYLLABUS_SEPTEMBER_2021_CORRECTED_d89050ab-a59e-4de4-ab85-f2819a2728d4.pdf		
7	Are Programme Outcomes (POs) clearly mentioned in the syllabus? (Y/N)			Yes
8	Are the Course Outcomes (COs) mentioned for each course of the programme? (Y/N)			Yes
9A	Does POs & COs have relevance to local, regional & global developmental needs? (Y/N)			Yes
9B	List of courses addressing Local Needs:			
	Course Code	Course Title	Brief Justification	
	MIC-18302CR	Immunology	Provides awareness among people about immunization.	
	MIC-18305DCE	Agricultural Microbiology	It enable farmers to increase yield and productivity in an eco-friendly way.	
	MIC-18304DCE	Food Microbiology	It is important for the production, processing and preservation of nutritionally rich food products.	
	MIC-18104DCE	Environmental Microbiology	Enable us to pursue the goal of environment sustainability.	
	MIC-18206DCE	Extremophiles	Addresses local needs: environmental cleanup, agricultural advancements.	
9C	List of courses addressing Regional Needs:			
	Course Code	Course Title	Brief Justification	
	MIC-18305DCE	Agricultural Microbiology	Presence of certain microbial interactions (Lichens) indicates pollution free environment.	
	MIC-18401CR	Industrial Microbiology	It plays a crucial role in addressing regional needs by tailoring microbial processes to local industries, enhancing resource efficiency and promoting sustainable practices.	
	MIC-18102CR	Bacteriology and Virology	It plays crucial role in governing the regional health needs by helping diagnose, treat and prevent infectious disease specific to particular area.	
9D	List of courses addressing Global Needs:			
	Course Code	Course Title	Brief Justification	
	MIC-18104DCE	Environmental Microbiology	Helps to reduce environmental pollution through the biological degradation of pollutant into less toxic substances.	
	MIC-18401CR	Industrial Microbiology	To synthesize a number of products valuable to human beings and hence changed our lives and life spans.	
	MIC-18305DCE	Agricultural Microbiology	It aims to study the interaction of beneficial microorganisms with agriculturally important plants, thereby meeting the global demand of food in an eco-friendly manner.	
	MIC-18205DCE	Molecular Biology and Microbial genetics	Molecular biological techniques aids in understanding and combating infectious diseases contributing to global health.	

	MIC-18205DCE	Bioinformatics and Biostatistics	It helps in analyzing vast biological data sets and identifying pattern in disease prevalence.
10A	Does the Programme offer focus on Employability/ Entrepreneurship/ Skill development courses? (Y/N)		
10B	List of Employability Courses:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-184402CR	Medical Microbiology	creates a human resource for the establishment of pathological laboratories.
	MIC-18401CR	Industrial Microbiology	Offers a variety of work assignments including research projects, technical sales and production services. Industries like biotechnology, agriculture and environmental sciences demand skilled professionals with expertise in microbial applications
	MIC-18305DCE	Agricultural Microbiology	One can work as agricultural engineer, soil and plant scientist and farm manager.
	MIC-18301CR	Genetic engineering and genomics	It significantly impacts employability by creating opportunities across various pharmaceutical industries.
	MIC-18302CR	Immunology	It emphasises on immune-related diseases and treatments enhances the need for skilled immunologists.
10C	List of Entrepreneurship Development Courses:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-18304DCE	Food Microbiology	Production, cost-benefit analysis and marketing of single cell protein, beverages and dairy production.
	MIC-18401CR	Industrial Microbiology	For production, cost-benefit analysis and marketing of vaccines, diagnostic kits, biofuels, organic acids etc. It contributes significantly to entrepreneurship development by offering opportunities in areas like biotechnology, agriculture and environmental management.
	MIC-18301CR	Genetic engineering and genomics	It helps in development of many transgenic species.
	MIC-18305DCE	Agricultural Microbiology	It offers innovative solutions for sustainable farming.
10D	List of Skill development Courses:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-18305DCE	Agricultural Microbiology	It helps in formulation of biofertilizer, biopesticides and vermicomposting.
	MIC-18301CR	Genetic engineering and genomics	It provides us ways for the production of useful hybrid varieties.
	MIC-18401CR	Industrial Microbiology	Production of fermented products like pickles, wine, bread etc.
11A	Does the programme have courses addressing Professional ethics/ gender/ human values/ environment/ sustainability & other value framework enshrined in NEP2020/etc., (Y/N)		
11B	List of courses addressing Professional Ethics:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-18401CR	Industrial Microbiology	It ensures the responsible use of microorganisms in various industries.
	MIC-18305DCE	Agricultural Microbiology	It ensures crop improvement, disease control and soil fertility enhancement.
11C	List of courses addressing Gender Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
11D	List of courses addressing Human Value Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
11E	List of courses addressing Environment Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-18104DCE	Environmental Microbiology	Helps to reduce environmental pollution through the biological degradation of pollutant into less toxic substances.
	MIC-18305DCE	Agricultural Microbiology	It contributes to bioremediation efforts using microbes to clean up soil contaminated with pollutants.
11F	List of courses addressing Sustainability Issues:		
	<i>Course Code</i>	<i>Course Title</i>	<i>Brief Justification</i>
	MIC-18104DCE	Environmental Microbiology	Soil microorganisms helps to reduce global warming.
	MIC-18305DCE	Agricultural Microbiology	It promotes sustainable and eco-friendly practices in farming.

11G	List of courses addressing Other Value Framework enshrined in NEP2020/etc.:								
	Course Code	Course Title	Brief Justification						
12A	Does the Department/Directorate/Institute/ Centre offer Diploma Programme? (Y/N)								
12B	Details of the Diploma Programmes offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Programme Code	Name of Diploma Programme	Mode of Programme (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
13A	Does the Department/Directorate/Institute/ Centre offer Certificate Courses? (Y/N)								
13B	Details of the Certificate Courses offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of Certificate Course	Mode of Course (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
14A	Does the Department/Directorate/Institute/ Centre offer Value-Added Courses? (Y/N)								
14B	Details of the Value Added Courses offered by the institutions where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of Value-Added Course	Mode of Course (Online/Offline)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
15A	Does the Department/Directorate/Institute/ Centre offer Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms? (Y/N)								
15B	Details of Online Courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms where the students of the institution have enrolled and successfully completed during the last five years (2019-2023)								
	Course Code	Name of the Course	Mode of the Course-offered by the HEI or Online (Specify the platform like MOOCs, SWAYAM, etc.)	Year of Offering/enrolment	Contact hours of course	Number of students enrolled in the year	Number of Students completing the course in the year	Departmental website link to the relevant document	Number of students enrolled in the year
16A	Does the programme have Field Projects/ Research Projects /Internship in the programme? (Y/N)								
16B	Details of components of Field Projects / Research Projects / Internships implemented during last five years (2019-2023)								
	Course Code	Name of the course pertaining to field projects/ Research Projects /Internship		Number of Credits	Number of students undertaking course		Departmental website link to the relevant document		
	MIC-20401CR	Research based project work, dissertation writing and submission in hard bound form		12	15		https://cord.uk.edu.in/Files/4701b853-a330-4f94-a00e-01555a32a0ff/Menu/0_C_2019_TO_2024_RESEARCH_PROJECT_132ebf73-0ef6-4c89-b464-98a2bcad4ab9.pdf		
	MIC-20404DCE	Designing and drafting a research proposal /Journal Club/Scientific paper writing		2	15				

17	Any other Relevant Information:
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Signature of the Head/Director of the Department/Centre/Institute

General
Instructions:
1. Kindly format the syllabus in light of the instruction and discussions held in past meetings and upload the syllabus on the Departmental Website.
2. Upload valid proofs on the Departmental Website.