



## अधिष्ठाता अकादमिक / Dean-Academics

राष्ट्रीय प्रौद्योगिकी संस्थान – रायपुर  
NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR  
(Institute of National Importance)  
G.E. Road, Raipur – 492010 (C.G.)

No./NITRR/Dean (Academic)/2022/26

Raipur, dated: 10.01.2022

### List of Open Electives offered in VI<sup>th</sup> Semester (CBCS Scheme)

#### Architecture

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Earthquake Resistant Architecture	AR206301AR	Dr. Debashis Sanyal Associate Professor	None	None
2	Universal Design	AR206302AR	Ms. Shruti Sharad Nagdeve Assistant Professor	None	None
3	Disaster Management and Mitigation Systems	AR206303AR	Mrs. Kabita Biswas Sharma Assistant Professor	None	None

#### Biomedical Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Biomicrofluidics (Open elective)	BM106322BM	Dr. M. Marieswaran	Biomechanics/ Fluid mechanics	Nil

#### Biotechnology

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Intellectual Property Rights	BT106302BT	Dr Chinmaya Mahapatra, Asst. Prof.	NIL	NIL

#### Chemical Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Non - conventional energy sources	CH106301CH	Dr. Vijyendra Kumar	NIL	NIL

#### Civil Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Air & Noise pollution and Control	CV106301CV	Dr. A.V. Ahirwar, Assistant Professor	None	None

2	Construction Management	CV106302CV	Dr. S.V. Deo, Associate Professor	None	None
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### Computer Science & Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Information Retrieval	CS106304CS	Dr. Jitendra Kumar Rout, Assistant Professor	NIL	NIL
2	Applied Machine Learning	CS106302CS	Dr. Pradeep Singh, Assistant Professor & Dr. Dilip Singh Sisodia, Assistant Professor	NIL	8.5 $\geq$ CPI

### Electrical Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1.	Design of Photovoltaic Systems	EL106301EL	Dr. Varsha Singh	Basic Electrical Engineering	NA
2.	Advanced Digital Signal Processing	EL106303EL	Dr. N D Londhe	Signals & Systems	NA
3.	Basics of Electrical Machines	EL106304EL	Dr. Ebha Koley	Basic Electrical Engineering	Not for B.Tech (Electrical Engineering) students

### Electronics & Communication Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Machine learning and pattern recognition	EC106301EC	S. Majumder, Asst. Professor	None	None

### Information Technology

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1.	Machine Learning	IT106301IT	Dr. Chandrashekar Jatoth (Assistant Professor)	Data Mining, DBMS, Data Structure	NA

## Mathematics

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1.	Algebra	MA106301MA	Dr. Arvind Kumar Sinha	Mathematics-I, Mathematics-II	NA
2.	Linear Algebra	MA106302MA	Dr. Debasisha Mishra	Mathematics-I, Mathematics-II, Mathematics-III	NA
3.	Engineering Optimization	MA106303MA	Dr. Sujit Kumar Samanta	Mathematics-I, Mathematics-II, Mathematics-III	NA
4.	Mathematical Biology	MA106304MA	Dr. Sharada Nandan Raw	Mathematics-I, Mathematics-II, Mathematics-III, MathematicsIV	NA
5.	Discrete Mathematics with Graph Theory	MA106305MA	Dr, Deepmala Sharma	Mathematics-I, Mathematics-II	NA
6.	Advanced Sampling Theory	MA106306MA	Dr. Anup Kumar Sharma	Mathematics-III, MathematicsIV	NA

## Mechanical Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Design Thinking and Product Innovation	ME106301ME	<b>Dr. N V Swamy Naidu</b> , Associate Professor	Nil	NA
2	Robotics	ME106303ME	<b>Dr. S Sanyal</b> , Professor and HOD	Nil	CPI/SPI
3	Smart Materials and Systems	ME106304ME	<b>Dr. R K Sahu</b> , Assistant Professor	Nil	NA

## Metallurgical & Materials Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Fracture Mechanics and Failure Analysis	MM106301MM	Dr. Mukesh Roshan, Assistant Professor	Physical Metallurgy, Mechanical Behaviour of Materials (May be relaxed for other departments)	None
2	Tribology of Materials	MM106302MM	Dr. M K Manoj, Assistant Professor	None	None

## Mining Engineering

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Mineral Processing	MI106301MI	Prof. B. R. Parate Associate Professor	No	No

## Humanities & Social Sciences

S.no	Open Electives Offered	Subject Code	Name of the Faculty and designation	Prerequisites, if any	Exclusion criterion if any
1	Basic Entrepreneurship for Engineers	HS1063 03HS (Open Elective)	Dr. Saurabh Gupta	None	CPI/SPI

### Note:-

1. The faculty offering the open elective and/or the department may restrict registration to an elective on the basis of CPI, pre-requisites or any other as may be deemed fit.

**Dean-Academics NIT  
Raipur**