



# हरकोर्ट बटलर प्राविधिक विश्वविद्यालय

नवाबगंज, कानपुर - 208002, उ.प्र., भारत

**HARCOURT BUTLER TECHNICAL UNIVERSITY**

NAWABGANJ, KANPUR - 208002, U.P., INDIA

**(Formerly Harcourt Butler Technological Institute, Kanpur)**

**100 YEARS**  
1921 - 2021

Phone : +91-0512-2534001-5, 2533812, website : <http://www.hbtu.ac.in>, Email : [vc@hbtu.ac.in](mailto:vc@hbtu.ac.in)

**Department: Chemical Engineering**

**School: Chemical Technology**

**Name of Programme: B. Tech. Chemical Engineering**

### List of Programme Elective

CBCS / ECS courses	Semester	Name of Course
Programme Elective I	VII	Nano Technology
Programme Elective I	VII	Colloids & Interface Science and Engineering
Programme Elective I	VII	Corrosion Science and Engineering
Programme Elective I	VII	Electrochemical Technology
Programme Elective II	VII	Petroleum Refining & Petrochemical Technology
Programme Elective II	VII	Principles of Polymer Engineering
Programme Elective II	VII	Bio-System Process
Programme Elective II	VII	Management of R&D
Programme Elective III	VIII	Optimization: Theory and Practices
Programme Elective III	VIII	Advanced Chemical Process Control
Programme Elective III	VIII	Mathematical Methods in Chemical Engineering
Programme Elective III	VIII	Statistical Design of Experiments
Programme Elective IV	VIII	Advanced Separation Processes
Programme Elective IV	VIII	Conceptual Design of Chemical Processes
Programme Elective IV	VIII	Energy Resources & Energy Conservation
Programme Elective IV	VIII	Industrial Pollution Control and Waste Management
Open Elective I	VII	Energy Resources and Utilization
Open Elective II	VIII	Air Pollution Monitoring and Control

**(Anand Kumar)**

Dean of Academic Affairs



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**Department: Oil Technology**

**School: Chemical Technology**

**Name of Programme: B. Tech Oil Technology**

**List of Programme Elective**

CBCS / ECS courses	Semester	Course Code	Name of Course
Programme Elective I	VII	TOT 455	Advanced Oil Chemistry & Oleochemicals
Programme Elective I	VII	TOT 457	Petroleum Products & Petrochemicals
Programme Elective II	VII	TOT 459	Commerce, Process Economics, and Safety Management in Oil Industries
Programme Elective II	VII	TOT 461	Lipid Biotechnology
Programme Elective III	VII	TOT 452	Packaging of Oils, Fats & Allied Industries
Programme Elective III	VII	TOT 454	Fuel & Green Lubricants
Programme Elective IV	VIII	TOT 456	Food Packaging & Storage Engineering
Programme Elective IV	VIII	TOT 458	Process Modeling & Simulation
Open Elective I	VII	OOT 491	Computer Aided Equipment Design
Open Elective II	VIII	TCH 492	Transport Phenomenon

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1921 - 2021

**Department: Food Technology**

**School: Chemical Technology**

**Name of Programme: B. Tech Food Technology**

**List of Programme Elective**

CBCS / ECS courses	Semester	Course Code	Name of Course
Programme Elective I	VII	TFT 403	Traditional & Fermented Foods
Programme Elective I	VII	TFT 405	Food Product & Process Development
Programme Elective II	VII	TFT 407	Food Processing & Waste Management
Programme Elective II	VII	TFT 409	Quality Management of Frozen Foods
Programme Elective III	VII	TFT 411	Technology of Milk & Milk Products
Programme Elective III	VII	TFT 413	Nutraceutical & Functional Foods
Programme Elective IV	VIII	TFT 406	Food Packaging & Storage Engineering
Programme Elective IV	VIII	TFT 408	Principles of Food Analysis
Open Elective I	VII	TFT 415	Nutritional Aspect of Natural and Processed Foods
Open Elective II	VIII	TFT 402	Innovative Techniques in Food Processing
Open Elective II	VIII	TFT 404	Application of Computer in Food Processing

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**100** YEARS  
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**Department: Paint Technology**

**School: Chemical Technology**

**Name of Programme: B. Tech. Paint Technology**

**List of Programme Elective**

CBCS / ECS courses	Semester	Course Code	Name of Course
Programme Elective I	VII	TPT 455	Technology of Architectural & Eco-friendly Coatings
Programme Elective I	VII	TPT 457	Corrosion Control Technology
Programme Elective II	VII	TPT 459	Technology of Industrial and Automotive Coatings
Programme Elective II	VII	TPT 461	Nanotechnology in Surface Coatings
Programme Elective III	VIII	TPT 452	High Polymeric Engineering
Programme Elective III	VIII	TPT 454	Technology of Packaging & Waste Management
Programme Elective IV	VIII	TPT 456	Process Modeling & Simulation
Programme Elective IV	VIII	TPT 458	Computer Aided Process Equipment Design
Open Elective I	VII	OPT 433	Basic Paint Technology
Open Elective II	VIII	OCH 444	Transport Phenomenon

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**Department: Electronics Engineering**

**Name of Programme: B. Tech. Electronics Engineering**

### List of Programme Elective

CBCS / ECS courses	Semester	Name of Course
Programme Elective I	VII	Biomedical Signal Processing
Programme Elective I	VII	Satellite Communication
Programme Elective I	VII	Digital System Design using VHDL
Programme Elective I	VII	Data Communication Networks
Programme Elective II	VII	Artificial Intelligence
Programme Elective II	VII	Wireless Communication
Programme Elective II	VII	VLSI Device Modelling
Programme Elective II	VII	Microwave and Radar Engineering
Programme Elective III	VIII	Architecture And Applications Of Digital Signal Processors
Programme Elective III	VIII	Information Theory and Coding
Programme Elective III	VIII	Advanced Semiconductor Devices
Programme Elective III	VIII	RF Systems
Programme Elective IV	VIII	Image Processing
Programme Elective IV	VIII	Neural Networks
Programme Elective IV	VIII	Embedded Systems
Programme Elective IV	VIII	Data Analytics
Open Elective I	VII	Mobile Communication
Open Elective I	VII	Biomedical Electronics
Open Elective II	VIII	Image Processing
Open Elective II	VIII	Fuzzy Logic with electronics engineering applications

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