



Advanced Diploma in Foundry Technology



VISION

Shaping a better future for mankind by developing effective and socially responsible individuals and organizations.

OUR MISSION

Institute of Technology emphasizes the all round development of its students. It aims at not only producing good professionals, but also good and worthy citizens of a great country, aiding in its overall progress and development.

It endeavors to treat every student as an individual, to recognize their potential and to ensure that they receive the best preparation and training for achieving their career ambitions and life goals.

NIRMA UNIVERSITY

In 1994, the founder of Nirma Industries and internationally famous entrepreneur Dr. Karsanbhai K Patel crystallized his long cherished dream of providing world class facilities for world class education. He established Nirma Education and Research Foundation (NERF).

Nirma University of Science and Technology was established as a Statutory University under the Gujarat State Act at the initiative of Nirma Education and Research Foundation.

ABOUT THE INSTITUTE

Institute of Technology is a constituent of Nirma University of Science and Technology. It offers Technology offers UG programmes in eight disciplines and PG in six disciplines and MCA. It also offers Ph.D. programmes in various engineering disciplines.

Under Nirma University of Science and Technology, other institutions co-existing with Institute of Technology are Institute of Management, Institute of Diploma Studies, Institute of Pharmacy, Institute of Science and Institute of Law.

The main emphasis centers around the following thrust areas:

- Creating an environment for promoting industry-institute partnership, applied research and familiarity with emerging trends in science, technology and management.
- Achieving excellence in Teaching-Learning process in the respective disciplines.

ABOUT THE DEPARTMENT

Mechanical Engineering Department offers Undergraduate Programme of Bachelor of Technology in Mechanical Engineering and Postgraduate Programme in Computer Aided Design/Computer Aided Manufacturing. The department comprises of major areas viz. Thermal Engineering, Design & Dynamics and Production Engineering.

Establishment of National Thermal Insulation Testing Laboratory is another major important initiative taken up by the department. This laboratory, being unique in the country is developed in Collaboration with All India Council for Technical Education under its Scheme National Facilities in Engineering and Technology with Industrial

Collaboration (NAFETIC). The laboratory has all facilities for testing of Thermal Insulation.

The faculty of the department is highly qualified and motivated. They are provided latest technical knowledge by deputing them for various Faculty Development programmes including seminar, conferences, summer/winter schools and higher studies. For the benefit of the students and staff, expert lectures are regularly arranged by inviting field experts. Apart from regular teaching activity, students periodically visit various industries in order to reinforce classroom learning.

The department has conducted so far several ISTE sponsored/approved short term training programmes at national level for the faculty of Degree/Diploma engineering colleges and industry professionals.

ABOUT THE COURSE

The Indian Foundry industry, witnessing an unprecedented boom and the foreign outsourcing on the Indian foundries, is showing rapid growth. The present turnover of Indian Foundry Industry is about 5.0 million tons and is growing at an annual rate of 5 – 7 %. The ever-increasing global competitiveness, vast potential of castings export, and growing demand for castings in domestic market have resulted in an increase in the demand for skilled foundry engineers on the shop floor. A comparison of performance of Indian foundries with those in the developed countries indicates that even though we are excellent in several areas, including metallurgy, we need improvement in many spheres. There is vast scope for improvement in the productivity, capacity utilization, and rejection rates. Lack of proper marketing strategy, trained manpower, R&D back-up and quality awareness make the situation more complex.

It was realized that there is acute shortage of suitable trained manpower in the area of Foundry Technology in the State like Gujarat and its neighboring states. Many foundries are demanding either part time training facility for their employees or focused short duration training in specific areas of foundry processes. Today, there is no properly designed training course in Foundry Technology for young engineers. With this idea in mind, Nirma University, in collaboration with the Gujarat Foundry Industry has decided to offer a one year full time course in **“Advanced Diploma in Foundry Technology”**.

Striking features of the course:

- A course designed by Nirma University in consultation with the foundry industry and experts from this area for fulfilling the man-power need of the foundry industry.
- Faculty - An optimum blend of experts from academia and industry.
- Excellent placement
- Exposure to industry by way of conducting visits, training, and deliberations by experts.

COURSE CONTENT

The duration of the course is one year comprising of three trimesters.

Trimester - I (Duration: 4½ months, 23 Credit)

- Physical Metallurgy – I
- Material Technology
- Furnaces, Refractories & Pyrometry
- Foundry Technology – I
- Testing of Material and Quality Assurance
- Communication Skills
- Seminar

Trimester - II (Duration: 4½ months, 21 Credit)

- Foundry Technology – II
- Physical Metallurgy – II
- Instrumental Methods of Analysis
- Casting Defects - Analysis and Remedies
- Industrial Engineering and Production Management
- Reporting Skills
- Seminar

Trimester - III (Duration: 3 months, 11 Credit)

- Industrial Training

FEE STRUCTURE

- Tuition Fee: Rs. 25,000/- per annum
- Registration and other Fees : Rs. 800/-
- Caution Money and Library Deposit : Rs. 1350/- (Refundable)

RESOURCE FACULTY

Apart from faculty drawn from Nirma University, other resource persons are drawn from research centers and various reputed foundry industries -both ferrous and non-ferrous. To name a few:

- Dr. P. N. Bhagwati, Chairman, Bhagwati Group of Foundries.
- Dr. P. K. Basutkar, Ex. Div. Manager, TELCO, Pune.
- Mr. R. C. Kothari, Director, Rhino Machines Pvt. Ltd., Baroda.
- Mr. I. A. Vasanwala, Gen. Manager (Operations), Bhagwati Spherocast Pvt. Ltd., Ahmedabad.
- Mr. Prakash Vaishnav, Executive (Foundry purchase) Dresser-Rand (India) Pvt. Ltd., Ahmedabad.
- Mr. Farrok S. Katpitia, Ex. Gen. Manager(Foundry), Jyoti Ltd., Baroda
- Mr. M. R. Shah, Editor, FOUNDRY Magazine, Ahmedabad.
- Prof. P. L. Jain, Ex. Director, NIFFT, Ranchi. ,Jodhpur,
- Mr. Kamlesh B. Solanki, Gen. Manager(Works) I.P.C.L., Bhavnagar
- Mr. D. C. Firake, Director, Kevin Metal Cast, Ahmedabad.
- Mr. D.B.Dahotre, Foseco India Ltd., Pune.
- Mr.Gandhi, General Manager, D. C. Engg., Ahmedabad.

INDUSTRY VISITS

A Number of leading foundries, foundry equipment manufacturers and foundry materials suppliers have collaborated with this programme to provide exposure through visits. To name a few:

- Bhagwati Spherocast Ltd., Ahmedabad.
- AIA Engineering Ltd., Ahmedabad.
- Electrotherm (India) Ltd., Ahmedabad.
- Kastwel Foundry, Ahmedabad
- Investment & Precision Casings Ltd., Bhavnagar
- Rhino Machines Pvt. Ltd., Vadodara
- Dresser-Rand India Pvt. Ltd., Ahmedabad.
- Baroda Machinery Manufacturers Pvt. Ltd., Vadodara.
- RBD Engineers, Khatraj, Ahmedabad

- Foseco India Ltd, Pune.
- D.C. Engineering, Ahmedabad.
- InspirOn Engineering Pvt. Ltd., Ahmedabad

MAJOR SPONSORERS:

The total intake strength in this programme is 30. Some seats are reserved for industry sponsored candidates. Many industries have sponsored students. To name a few:

- Bhagwati Spherocast Ltd., Ahmedabad
- Shell Hazira Gas Pvt. Ltd. (SHGPL), Surat
- Menon & Menon Ltd., Kolhapur
- AIA Engineering Ltd., Ahmedabad
- Steel Cast Ltd., Bhavnagar
- Electrotherm (India) Ltd., Ahmedabad
- Dresser-Rand (India) Pvt. Ltd., Ahmedabad.

ELIGIBILITY

Degree /Diploma in Mechanical Engineering, Production Engineering, Metallurgical Engineering, Fabrication Technology or equivalent course passed from recognized institutes/universities.

OR

B. Sc. with Physics/Chemistry from recognized University with minimum three years foundry experience.

HOW TO APPLY

Applications forms can be obtained by paying Rs. 500/- as form fee from Nirma University campus. The application form can be also downloaded from the institute website. Interested candidates are required to send their applications duly filled in on or before _____ at the following address.

Head

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