

Short Term course on welding technique

Duration: 30 HRS

Fees: Rs. 4000/ Student

PROGRAMME OUTCOMES

- Employment Opportunities
- Self employment
- Wage Employment
- Skills

About The Programme

Welding is now a day's extensively used in automobile industry, air craft, machine frames, structural work, machine repair work, pipeline fabrication in thermal power plants and also in day to day life welding of bicycle, scooters, grills, window fabrication, etc.



Abhishek
9565970078
Ravebdra
9794001009
Prateek
8171227571

Dated-11/04/2019

To,
The Dean
FET, Rama University, Kanpur

Sub: Regarding Grant and certificate Distribution for Short-Term Course

Dear Sir,

It is informed to you that a short term course on "Welding Techniques" had held between dated from 1 March to 15 May of 30 hrs. The fee for a short term course was Rs. 2000 per student. So the five students are registered for the same from the department of mechanical engineering. The total collection of short term fees was Rs.10000. Mr Devendra Kumar Lohia was convener for this course. As per the rule, the 30% amount will be distributed to engage faculty. So kindly grant the appreciation to engage faculty and certification for the participant. The student's list is attached.

With Regards,
Mr. Devendra Kumar Lohia
Head of Department (ME)

DL
4/11/19
HOD
Mechanical Engineering
FET, Rama University
Kanpur

**List of Student For Short Term Course On Welding Techniques
Session -2018-19**

S.No	Roll No.	Student Name	Course	Year	Branch
1	1804526210	Ashwani Kumar	Diploma	2nd	ME
2	1704526004	Devendra	Diploma	2nd	ME
3	1804526214	Divyansh Tripathi	Diploma	2nd	ME
4	1804526229	Vikalp Singh	Diploma	2nd	ME
5	1704526017	Vimal Pratap Singh	Diploma	2nd	ME

Mr. Devendra kumar Lohia
Hod (ME Deptt)
Medical Engineering
FET, Rama University
Kanpur

DEPARTMENT OF MECHANICAL ENGINEERING, FET OF MECHANICAL ENGINEERING, RAMA UNIVERSITY

RAMA UNIVERSITY

Welding Techniques(Short Term Course)

Conducted by : Anurag Kumar(Assistant Professor - Mechanical)

01/03/2019 - 15/05/2019

Time Table

S.No.	Date	Time	Topic
1	02/03/2019	4:00pm -5:00pm	Arc Welding: Fusing metals using an electric arc.
2	05/03/2019	4:00pm -5:00pm	MIG Welding: Using a wire electrode to join metals.
3	06/03/2019	4:00pm -5:00pm	TIG Welding: Using a tungsten electrode to weld metals with precise control.
4	07/03/2019	4:00pm -5:00pm	Stick Welding: Using a consumable electrode coated in flux.
5	08/03/2019	4:00pm -5:00pm	Gas Welding: Heating metals with a flame and joining them together.
6	09/03/2019	4:00pm -5:00pm	Flux-Cored Arc Welding: Similar to MIG welding but uses a tubular wire filled with flux.
7	11/03/2019	4:00pm -5:00pm	Spot Welding: Joining metal parts by applying pressure and electric current.
8	12/03/2019	4:00pm -5:00pm	Seam Welding: Continuous welding along a joint to create a sealed seam.
9	13/03/2019	4:00pm -5:00pm	Projection Welding: Joining metal parts by applying pressure and electric current at specific points.
10	14/03/2019	4:00pm -5:00pm	Stud Welding: Welding studs onto a metal surface.
11	15/03/2019	4:00pm -5:00pm	Electron Beam Welding: Using a focused beam of electrons to weld metals.
12	16/03/2019	4:00pm -5:00pm	Laser Welding: Joining metals using a highly concentrated beam of light.
13	18/03/2019	4:00pm -5:00pm	Plasma Arc Welding: Using a plasma arc to weld metals.
14	19/03/2019	4:00pm -5:00pm	Ultrasonic Welding: Joining metals using ultrasonic vibrations.
15	22/03/2019	4:00pm -5:00pm	Friction Welding : Joining metals by rubbing them together under pressure.
16	23/03/2019	4:00pm -5:00pm	Forge Welding: Heating metals and hammering them together.
17	25/03/2019	4:00pm -5:00pm	Resistance Welding: Joining metals by applying pressure and electric current through electrodes.
18	26/03/2019	4:00pm -5:00pm	Carbon Arc Welding: Using a carbon electrode to create an arc for welding.

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19	27/03/2019	4:00pm -5:00pm	Atomic Hydrogen Welding: Welding metals in a hydrogen atmosphere.	Welding metals
20	28/03/2019	4:00pm -5:00pm	Electroslag Welding: joining metals using a molten slag to shield the weld.	Welding metals
21	29/03/2019	4:00pm -5:00pm	Electro-gas Welding: A variation of MIG welding using a gas shield.	Welding metals
22	30/03/2019	4:00pm -5:00pm	metal Inert Gas (MIG) Welding: Welding with a shielded gas to protect the weld from atmospheric Contamination.	Welding metals
23	01/04/2019	4:00pm -5:00pm	Metal Active Gas(MAG) Welding: Similar to MIG welding but uses active gases.	Welding metals
24	02/04/2019	4:00pm -5:00pm	Metal-Cored Arc Welding: Combines elements of MIG and flux-cored arc welding.	Welding metals
25	03/04/2019	4:00pm -5:00pm	Submerged Arc Welding: Welding metals under a layer of flux of protect the weld from atmospheric contamination.	Welding metals
26	04/04/2019	4:00pm -5:00pm	Gas Metal Arc Welding(GMAW) Another name for MIG welding.	Welding metals
27	05/04/2019	4:00pm -5:00pm	Gas Tungsten Arc Welding(GTAW) Another name for TIG Welding.	Welding metals
28	08/04/2019	4:00pm -5:00pm	Oxyfuel Gas Welding: Using a combination of oxygen and a fuel gas to weld metals.	Welding metals
29	09/04/2019	4:00pm -5:00pm	Plasma-MIG Welding: Combining plasma arc and MIG welding techniques.	Welding metals
30	10/04/2019	4:00pm -5:00pm	Plasma-TIG Welding: Combining Plasma arc and TIG Welding techniques.	Welding metals
31	11/04/2019	4:00pm -5:00pm	Plasma-MIG Welding: MIG welding with pulsed current for better control.	Welding metals
32	15/04/2019	4:00pm -5:00pm	Pulsed TIG Welding: TIG welding with pulsed current for better control.	Welding metals
33	16/04/2019	4:00pm -5:00pm	Carbon Dioxide Welding: Using carbon dioxide gas as a shielding agent in welding.	Welding metals
34	20/04/2019	4:00pm -5:00pm	ElectrodeWelding: Welding with a consumable electrode that also serves as filler metal.	Welding metals
35	22/04/2019	4:00pm -5:00pm	Inert Gas Welding: Welding with a shielding gas to prevent atmospheric Contamination.	Welding metals
36	23/04/2019	4:00pm -5:00pm	Metal insert Gas Welding: Another name for Mig Welding.	Welding metals
37	24/04/2019	4:00pm -5:00pm	MIG Brazing: Using MIG welding techniques for brazing.	Welding metals
38	27/04/2019	4:00pm -5:00pm	Submerged MIG Welding: Combining submerged arc welding with MIG welding.	Welding metals
39	02/05/2019	4:00pm -5:00pm	Submerged TIG Welding: Combining submerged arc welding with TIG welding.	Welding metals
40	03/05/2019	4:00pm -5:00pm	Alomic Hydrogen Gas Welding: Welding in a hydrogen atmosphere to prevent contamination.	Welding metals


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41	04/05/2019	4:00pm -5:00pm	41	04 Manual metal Arc Welding: Another name for stick welding	Manual metal Arc Welding: Another name
42	06/05/2019	4:00pm -5:00pm	42	Consumable insert gas Welding: A variation fo MIG welding with a consumable insert.	Consumable insert gas Welding: A variation fo MIG welding with a consumable insert.
43	08/05/2019	4:00pm -5:00pm		Resistance spot Welding: Another name for spot welding.	
44	09/05/2019	4:00pm -5:00pm		Shielded Gas Welding: Another term for gas welding.	
45	10/05/2019	4:00pm -5:00pm		Gas Shileded Arc Welding: Another term for gas welding.	
46	11/05/2019	4:00pm -5:00pm		Shielded Metal Arc Welding (SMAW): Another name for stick welding.	
47	13/05/2019	4:00pm -5:00pm		Metal inert Gas shielded Welding: Another term for MIG welding.	
48	15/05/2019	4:00pm -5:00pm		Metal inert Gas Gas Sheleled Welding: Another term for MIG Welding.	

4/7/19

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Karakoram

DEPARTMENT OF MECHANICAL ENGINEERING ,FET

RAMA UNIVERSITY

Welding Techniques(Short Term Course)

Conducted by : Anurag Kumar(Assistant Professor - Mechanical)

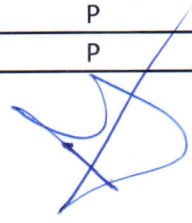
01/03/2019 - 15/05/2019


ATTENDENCE SHEET

S.No.	Dates	Students Name				
		Ashwani Kumar	Devendra	Divyansh Tripathi	Vikalp Singh	Vimal Pratap Singh
	4:00pm -5:00pm					
1	02/03/2019	P	P	P	P	P
2	05/03/2019	P	P	P	P	P
3	06/03/2019	P	P	P	P	P
4	07/03/2019	A	P	P	P	P
5	08/03/2019	P	P	P	P	P
6	09/03/2019	P	P	P	P	P
7	11/03/2019	P	P	A	P	P
8	12/03/2019	P	P	P	P	P
9	13/03/2019	P	P	P	P	P
10	14/03/2019	P	P	P	A	P
11	15/03/2019	P	P	P	P	P
12	16/03/2019	A	P	P	P	P
13	18/03/2019	P	P	P	P	P
14	19/03/2019	P	A	P	P	P
15	22/03/2019	P	P	P	P	P
16	23/03/2019	P	P	P	P	P
17	25/03/2019	P	P	P	P	P
18	26/03/2019	P	P	P	P	P
19	27/03/2019	P	A	P	P	P
20	28/03/2019	P	P	P	P	P
21	29/03/2019	P	P	P	P	P
22	30/03/2019	P	P	P	P	P
23	01/04/2019	P	P	P	P	P
24	02/04/2019	P	P	P	P	P
25	03/04/2019	P	P	P	P	A
26	04/04/2019	P	P	P	P	P
27	05/04/2019	P	P	P	P	P
28	08/04/2019	P	P	P	P	P
29	09/04/2019	P	P	P	P	P
30	10/04/2019	P	P	P	P	P
31	11/04/2019	P	P	P	P	A
32	15/04/2019	A	A	P	P	P
33	16/04/2019	P	P	P	P	P
34	20/04/2019	P	P	P	P	P
35	22/04/2019	P	P	P	P	P
36	23/04/2019	P	P	P	P	A
37	24/04/2019	P	P	A	P	P
38	27/04/2019	P	P	P	P	P
39	02/05/2019	P	P	P	P	P
40	03/05/2019	P	P	P	P	P
41	04/05/2019	P	P	P	P	P
42	06/05/2019	P	P	P	P	P

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43	08/05/2019	P	P	P	P	P
44	09/05/2019	A	P	P	P	P
45	10/05/2019	P	P	A	P	P
46	11/05/2019	P	P	P	P	P
47	13/05/2019	P	P	P	P	P
48	15/05/2019	P	P	P	P	P




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Kanpur



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

ORDINANCES GOVERNING CAREER ORIENTED

SHORT-TERM COURSES *Offered by*

Department of Mechanical Engineering

Faculty of Engineering and Technology

RAMA UNIVERSITY UTTAR PRADESH, KANPUR



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

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RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

Part: 1

Ordinance Governing Career Oriented Short Term Courses



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

I. General Provisions

1. The program of study leading to Career Oriented Short Term Course (Certificate Program) of Department of Mechanical Engineering, Faculty of Faculty of Engineering and Technology of Rama University Uttar Pradesh, Kanpur shall be of Eight weeks, and shall be basically for the persons who are having interest in this field or they want to build their career in the web development field. The program shall have the status of Add-on Skill Oriented Program under Career Oriented Sort Term Course.
2. The Certificate programs shall have the status of "Short Term Courses" of Rama University Uttar Pradesh, Kanpur and shall be governed by the general rules of the Short Term Courses.
3. The intake to the Certificate Courses shall be 30, which may be increased to 60 (Two Batches) in due course of time by a resolution of the University.
4. The Program of study leading to Career Oriented Short Term Course (Certificate Program) of the Rama University Uttar Pradesh, Kanpur shall be conducted in the Department of Mechanical Engineering under the Faculty of Engineering and Technology in the evening hours or during any such duration which would be appropriate.
5. The admission to Career Oriented Short Term Course (Certificate Program) shall be dealt with by the Dean, Faculty of Engineering and Technology. The last date for the receipt of the application form shall be fixed by the Dean of the Faculty.
6. The candidate seeking admission will have to apply on a prescribed format available from the University/ Faculty on payment of prescribed fee.
7. The candidate may be required to pay the processing fee as directed by the Faculty from time to time. No Application Form shall be considered for admission unless it is complete in all respects including attested copies of the photographs of the candidates containing his/her signature thereon and all necessary documents attached thereto, such as:
 - a) Attested copies of mark-sheets of all the examinations passed;
 - b) Certificate from an appropriate authority certifying that the candidate belongs to Scheduled Caste/Scheduled Tribe/OBC or that the candidate is Physically Challenged.
8. The provisional admission to the Program shall be made in order of merit based or on the candidate's performance in TEST/GD/PI, and academic record.
9. The completed Application Forms for registration at Faculty of Engineering and Technology, Rama University Uttar Pradesh, Kanpur along with documents required under ordinance at above point 6 shall be sent to the Registrar.
10. Provisional admission cannot be claimed by any applicant as a matter of right. The provisional admission or readmission of an applicant shall be entirely at the discretion of the Admission Committee, which may refuse to admit any candidate without assigning any reason thereof.
11. Provisional admission will be made strictly on combined merit and availability of seats on the
 - ii) If the candidate is found at a later stage to have provided any false information, and /or
 - iii) If he/she has been punished for an act of gross misconduct, indiscipline or an act involving moral turpitude.
13. There shall be an Admission Committee for Career Oriented Short Term Course (Certificate Programs) admission, constituted under the provisions of Ordinances and consisting of the Dean or his nominee. Admission shall be made in accordance with these ordinances and the rules made there under.



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

A. Eligibility:

1. The candidate seeking admission to Career Oriented Short-Term Course must be completed 10+2 from any recognized board/Institute in any stream. B. Intake & Reservations:
2. The intake to Career Oriented Short-Term Course shall be 30. The reservation in admission shall be as per rules.

3. Reservations:

3.1. SC Candidates 15 % of the intake ST Candidates 7.5% of the intake PC Candidates 3% of the intake (on horizontal reservation basis) OBC Candidates 27% of the intake

3.2. The candidates seeking admission under the above categories must fulfill the minimum eligibility conditions and qualifying requirements.

3.3. The SC/ ST/OBC candidates must enclose attested copy of the caste certificate along with their Application Form stating that the candidate belongs to SC/ST/OBC Category.

3.4. The following are empowered to issue SC/ST/OBC Certificates:

3.4.1. District magistrate/ Additional District Magistrate/ Collector/ Deputy Commissioner/ Addl. Deputy Commissioner/Deputy Collector /1st Class Stipendiary Magistrate/City Magistrate/Sub Divisional magistrate/ Taluka Magistrate/ Executive Magistrate /Extra Assistant Commissioner.

3.4.2. Chief Presidency Magistrate/ Addl. Chief Presidency Magistrate/ Presidency Magistrate. (ii) Revenue Officer not below the rank of Tehsildar. (iv) Sub- Divisional Officer of the area where the candidate and/or his family normally resides. (v) Administrator/Secretary to the Administrator/ Development Officer (Lakshadweep Islands). (vi) Candidate must note that certificate from any other person/authority shall not be accepted in any case.

3.4.3. 3% seats on horizontal reservation basis shall be reserved for Physically Challenged Candidates (i) 1% for Visually Impaired (ii) 1% for Hearing Impaired (iii) 1% for Orthopedically Handicapped. In case no candidate is available in any of the above three sub-categories, the unfilled seats shall be filled by the candidates belonging to the remaining sub-categories.

3.5. A candidate applying under PC category must attach a certificate by CMO, District Hospital.

3.6. However, he/she will be considered under PC category only after verification from the University Medical Board. Admit cards for admission shall be issued to such candidates only on production of the above-mentioned verification certificates from the Medical Board constituted by the University for the purpose.

3.7. Separate final merit list will be prepared for the candidates under each of the above categories.

3.8. Vacant seats, if any, may be filled up as per rules.

B. Course Fee:

1. The Program will run as a Short Term Course of Study as prescribed under the Career Oriented Short Term Course (Certificate Programs) of Rama University Uttar Pradesh, Kanpur.

2. The Short Term Course fee may vary as per the course.

II. ADMISSION PROCEDURE

1. Admission to Career Oriented Short Term Course (Certificate Programs) shall be made in order of merit.

2. The admission process may be reviewed as per need from time to time.



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

III: CONDUCT OF THE COURSE

1. To qualify for the Career Oriented Short Term Course (Certificate Programs), the candidate must submit the assignments/projects as contained in the Course structure / syllabus detailed herein after.
2. The students shall be permitted to simultaneously pursue any one of the proposed program at a time along with their regular diploma/degree program.

IV. ATTENDANCE RULES

1. A student is required to have full, i.e., 100%, attendance and exemption up to 25% can be considered for specific cogent reasons. Out of this 25%, only 10% exemption will be permitted without taking any application from the student. Rest 15% exemption may be given by the Dean. The cogent reasons for exemption are given below:
 - 1.1. Participation in NCC/NSC/NSS Camps duly supported by certificate.
 - 1.2. Participation in University or College Team Games or Interstate or Inter University tournaments, duly supported by certificate from the Secretary of the University Sports
 - 1.5. Prolonged illness duly certified by the Medical Officer or the Superintendent, Rama Hospital, Rama University or any other Registered Medical Practitioner, provided such certificate is submitted to the Dean, Faculty of Engineering and Technology in time.
 - 1.6. No relaxation beyond 25% shall be considered in any case.
2. The attendance of a newly admitted candidate shall be counted from the date of his/her admission, or date of beginning of classes whichever is later, while in the case of promoted candidates, attendance shall be counted from the date on which respective class begins.
3. There shall be an Attendance Monitoring Committee in the Faculty under the Chairmanship of the Dean.



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

Part: 2

Course Detail Career Oriented Short-Term Courses



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

I. COURSE STRUCTURE AND EVALUATION:

Candidates for the Career Oriented Short-Term Course (Certificate Programs) shall be evaluated on the basis of Assignments/Projects in accordance with the syllabi or course prescribed in the Ordinance.

A. Course Structure

The Career Oriented Short-Term Course (Certificate Programs) duration may vary on the basis course category. A student is required to complete the syllabus offer Certificate Program as per the details given below.

B. Course Syllabus:

Welding Techniques

Here are a few things you must know about the course that will help you understand the relevance and admission-related details about the course.

ABOUT THE COURSE:

This course is designed for the students of Mechanical and Processing Engineers who want to learn all the welding processes for their Examination point of for or for the Students who want to prepare them for the Welding Interview as this course covers all the welding processes in detail. This Course Includes the following topics.

- Understand about the history of welding in details that you can from where this technology start from.
- Understand difference between joining and welding with the advantages and disadvantages of welding.
- Get idea about the components used in welding (Consumable and Non Consumable).
- Understand all type of welding joints and type of welds.
- Welding as commercial operations and the safety requirement for the welding processes.
- Understand in detail about the arc and the shield welding processes.
- Deeply Understand all type of welding processes that are used in industries.
- Understand about the solid state welding and its types and defects.
- Understand all the concepts about the soldering and brazing processes.

ELIGIBILITY:

- Any Diploma or Bachelor Degree or M.Tech of any branch and studying in any year. Although its preferable to have students of final year as they will be benefitted maximum.

COURSEWARE:

- Course material is provided in printed / electronic form.

MODE:

- Online Lecture and Practice.



RAMA UNIVERSITY UTTAR PRADESH, KANPUR

(vide U.P. Act No. 1 of 2014 as passed by State Legislature and recognized by UGC U/s 2(f))

EVALUATION SYSTEM:

- Based on the Assignments and Final project report.

EMPLOYMENT OPPORTUNITY:

Most employers require you to have a welding certificate, which you receive when you complete the Certified Welder program. This program tests welders on procedures that are used in the sheet metal, structural steel, petroleum pipelines and chemical refinery welding industries.

- Master jeweler
- Mig welder
- Sheet metal worker
- Fabricator/Welder
- Structural iron and steelworker
- Welding inspector
- Tool and die maker
- Master plumber
- Oil rig welder
- Pipefitter
- Auto body welder/technician
- Industrial boilermaker

TARGET AUDIENCE

Key Management personnel who are involved in

- o Research & Development,
- o Engineering,
- o Quality,
- o Product Design,
- o Process Design,
- o And New Product Development

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RAMA
Institute of Technology

CERTIFICATE OF SHORT TERM COURSE

Presented to

M. S. Ankit Srivastav

for completion of the course

Welding Techniques

conducted from 01.03.2019 to 15.04.2019

at Dept. of Mechanical Engg. Faculty of Engineering & Technology

Dean Engineering

Registrar