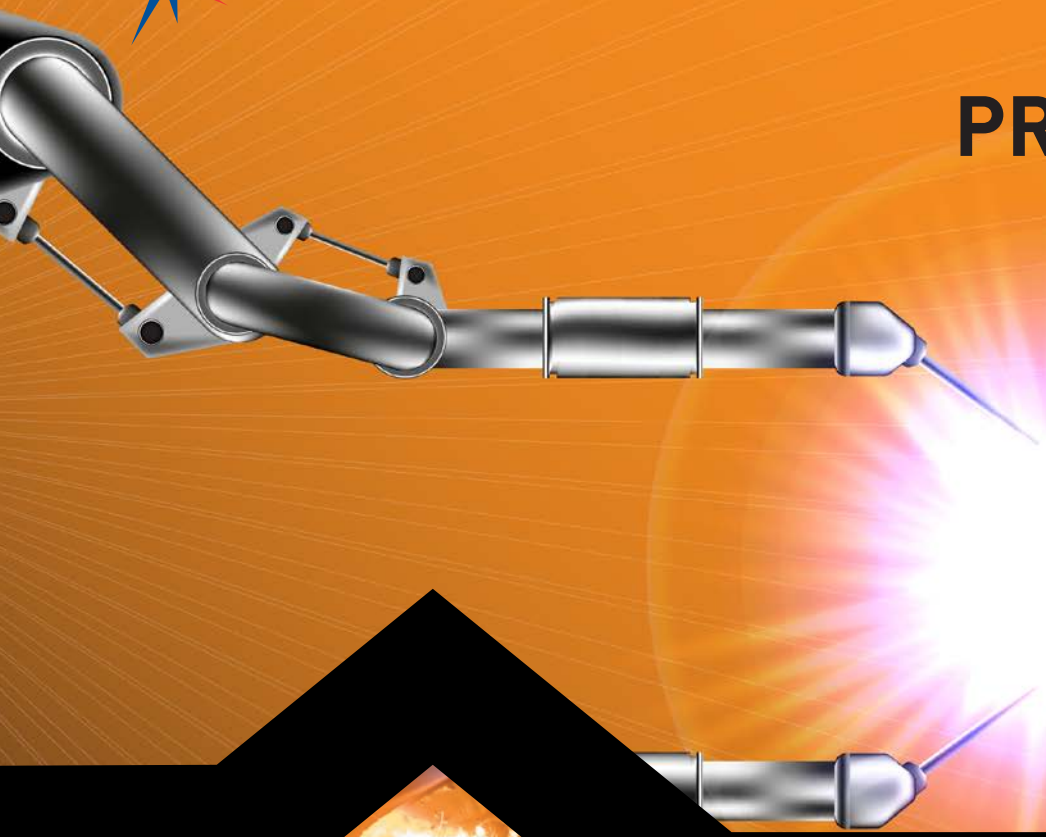
SAIW

Southern African Institute of Welding

COURSE PROSPECTUS 2022



Promoting World Class Excellence in Welding, Non-Destructive Testing and Allied Technology

About Practical Welder Training

Welding is a critical process that is controlled by both national and international standards and specifications to control the quality of the deposited weld metal and the skill of the welder. Welders can work in a unit or factory which produces fabrications and/or structures for industries as diverse as civil engineering, mechanical engineering, transport, marine engineering, construction, service, and leisure industries.

A welder prepares, assembles, and joins a wide range of metals and metal alloys using various welding processes. A welder will use mainly processes where the heat utilized for welding will be an electric arc to join a range of materials. Electric arc processes utilise a gas shield or a flux to protect the molten weld area from contamination by the surrounding atmosphere. The most used welding processes are listed below, and practical training programs can be tailored to suit the individual's needs.

1. Manual Metal Arc welding/Shielded Metal Arc welding
2. Metal Active Gas Arc welding/Gas Metal Arc welding,
3. Gas Tungsten Arc welding/ Tungsten Inert Gas welding
4. Flux Cored Arc welding.
5. Submerged Arc Welding (Automated process)

A welder needs to be able to interpret engineering drawings, standards and symbols and correctly translate these requirements into accurate structures and fabrications. They need to gain specific knowledge of how welding will affect the structure of the material being welded.
Welders join sections, pipe and plate and fabricate large and small pressure vessels. They must be able to select the correct equipment, process variables and welding technique depending upon the material being joined, and they use grinding and cutting equipment to prepare welded joints.

Practical welder training can be booked on a week-by-week basis, either at SAIW or in-house, for the purpose of upskilling the workforce and/or certification to code of construction levels using SAIW welding procedures or employer procedures. The SAIW also offers the International Institute of Welding's (IIW) International Welder (IW) qualification programme. In addition, SAIW is an approved QCTO skills provider for the theoretical and simulated practical learning requirements of the Welder apprenticeship.

Practical Welder Training

COURSE INFORMATION

The SAIW is dedicated to providing world-class practical welder training benchmarked against international welding standards and international welder programmes. SAIW therefore strives to ensure that when a candidate exits any of our tailormade programmes he/she can be assured of good prospects in securing employment with excellent financial rewards.

These highly sought-after courses can be developed to suit company or individual needs and are conducted at the SAIW practical welding school. They can also be offered in-house.

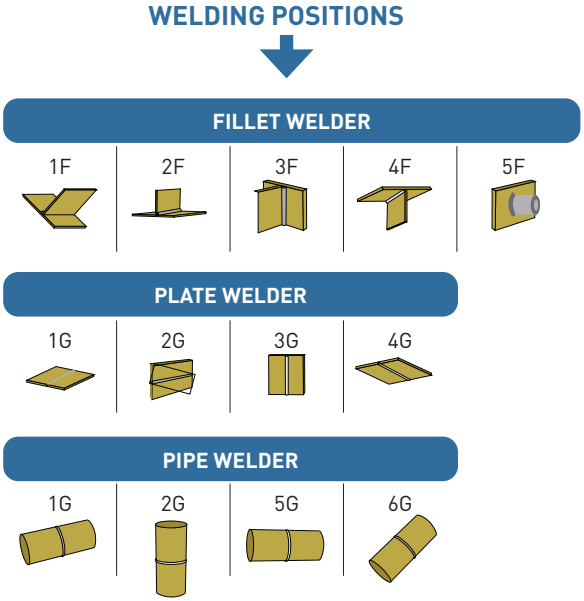
ENTRY REQUIREMENTS

Good hand-eye coordination is the most important aspect to allow one to excel in welding. Appropriate health as well as physical and mental capability is also required.

COURSE INFORMATION

Practical welding courses are tailored to accommodate any welding skill level, from beginner to experienced. Training is thus designed to meet the needs of the individual taking into account the entry skill level and the desired end result. The pace of progress is determined through practical assessments and hence the duration will vary from one person to the next.

Examples of the welding positions commonly used in welder training can be seen in the diagram below.



COURSE DURATION

Individuals seeking to learn how to weld or those wishing to acquire a new skill or upskill themselves can attend any Monday through Friday once a booking is confirmed.

ASSESSMENT

Outcomes of training will depend on the individual's ability to successfully undertake a Welder Performance Certification test as mandated by the various construction standards i.e. ASME section IX (required by Petrochemical Industry), (ISO 9606 required by Power Generation Industry) and AWS D1.1 - 6 (required for Structural Fabrication Industries).

PRICING (Including VAT)

The price of the course is **R 6 888**, and this is discounted by 5% for each successive week to 12 weeks. The pricing is thus as follows:

Week	Pricing
Week 1	**R 6 888**
Week 2	**R 6 543**
Week 3	**R 6 216**
Week 4	**R 5 905**
Week 5	**R 5 610**
Week 6	**R 5 329**
Week 7	**R 5 063**
Week 8	**R 4 810**
Week 9	**R 4 569**
Week 10	**R 4 341**
Week 11	**R 4 124**
Week 12	**R 3 918**

The above pricing includes certification testing (Coding) to the desired Construction Standard most applicable to the work.

Should only a welder competency test be required, **R2 905** will be charged per welding process, per position, per material.

PERSONAL PROTECTIVE EQUIPMENT

Students are required to supply their own personal protective equipment (safety boots, flame retardant overall).

Please note that any comments, compliments or complaints related to:
1. Training can be forwarded to quality@saiw.co.za 2. Examination and Certification can be forwarded to quality@saiw.co.za

Free spirited. Passionate. Talented. Artistic. Expert Surfer. Dad.

I'm an International Welder

We think of welding as a 'dirty' job, of loud factories, workshops, of noise, heat and risk. After all, it's merely a tradesman's job, right? Think again, being a **qualified International Welder** is a highly skilled career and your expert welding skills are one of the most internationally sought after, highly paid and essential trades. But being an **International Welder** isn't just a trade, it's a craft, an art and a science and you'll be able to work in over 60 countries and do a lot more than simply fuse metals together. You'll be building a better world, a better life for you and the generations to come.

SAIW

Southern African Institute of Welding

Contact SAIW on (011) 298 2100 or visit www.saiw.co.za

IIW International Welder

COURSE INFORMATION

The International Institute of Welding (IIW) has adopted the International Welder (IW) programme to address the need for highly skilled welders and to achieve global harmonisation in the training, examination and qualification testing of welders.

Training and assessment in the IW programme are linked to the requirements of the international standard, ISO 9606 qualification testing of welders. The ISO 9606 standard is widely used in South Africa, but it is important to note that it is similar to other standards which are relevant in South Africa, eg. ASME IX and AWS D1.1.

The IW programme provides a combination of theoretical knowledge and high-level practical skills assessed by tests of increasing difficulty and by theoretical examinations.

The programme is presented at three levels - fillet, plate, and pipe welder. Trainees are required to start with fillet welding and must pass a practical competency test before progressing to the next level. Training periods for practical welding vary from person to person.

Experienced welders are not required to undertake unnecessary practical training and may enter the IW programme at any level subject to completing the relevant level practical qualification test including those required for lower levels. A welder fully competent in fillet, plate and pipe welding would undertake the practical test for all three levels and would then undertake only the relevant theory components.

It is important that at each level there is an associated level of theory, plus there may be process specific and material specific theory modules which are applicable.

ENTRY REQUIREMENTS

Good hand-eye coordination is the most important aspect to allow one to excel in welding. Appropriate health as well as physical and mental capability is required to enter at Fillet Welder level. Access to higher levels may be allowed upon passing of relevant theoretical examinations and demonstration of required practical skill.

PRICING – 12 WEEK MODULE (Including VAT)

The price of the course is **R 6 888** per week, and this is discounted by 5% for each successive week to 12 weeks. Week 1 starts with each new process and with each new level (fillet, plate or pipe). The pricing is thus as follows:

Week	Pricing
Week 1	**R 6 888**
Week 2	**R 6 543**
Week 3	**R 6 216**
Week 4	**R 5 905**
Week 5	**R 5 610**
Week 6	**R 5 329**

Week	Pricing
Week 7	**R 5 063**
Week 8	**R 4 810**
Week 9	**R 4 569**
Week 10	**R 4 341**
Week 11	**R 4 124**
Week 12	**R 3 918**

A 25% surcharge is applied if the material is stainless steel or aluminium.

The above pricing includes certification testing (coding).

Should only a welder competency test be required, **R2 905** will be charged per welding process, per position, per material.

PRICING – TYPICAL DURATIONS

The estimated time required for the various processes and levels is shown below, but this is dependent on the individual.

Process	SMAW (MMA) Stick Welding		GTAW (TIG) Argon Welding		GMAW (MAG) & FCAW CO_2 & Flux Core	
Level	**Weeks**	**Price**	**Weeks**	**Price**	**Weeks**	**Price**
Fillet	12	R 60 590	12	R 60 590	12	R 60 590
Plate	10	R 52 894	8	R 44 368	8	R 44 368
Pipe	6	R 34 920	4	R 24 452	On request	
TOTAL	**28**	**R148 404**	**24**	**R 129 409**	**20**	**R 104 958**

The above pricing includes practical welding training, welder certification testing (coding), theoretical training and examination fees. If the material is stainless steel or aluminium, a 25% surcharge will apply.

A free one-week Robotics Welding Course will be awarded to the student should he/she complete a Process (e.g. MMA in Fillet, Plate and Pipe).

IIW International Welder

THEORY MODULES AND WELDER QUALIFICATION TESTS

The theory modules and welder qualification tests are included in the price of the International Welder qualification programme. However, an experienced welder may wish to become an International Welder through recognition of prior learning. In this case, the theory modules and welder qualification tests can be taken separately to the practical training:

	Course Duration	Pricing (including VAT)
International Fillet Welder – Module A	4 days	**R 5 600**
International Plate Welder – Module B	3 days	**R 4 200**
International Pipe Welder – Module C	1 day	**R 1 400**
Process Specific – Modules SA, ST and SM	1 day	**R 1 400**
Material Specific- Modules PSS and PAL	1 day	**R 1 400**
Welder Qualification Tests		**R 3 010 each**

COURSE SCHEDULE | IIW International Welder

JOHANNESBURG	
	JHB 1
Week 1	Upon request
Week 2	Upon request

Scan this QR code to download the SAIW Course Prospectus App onto your cellular phone.

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Robotic Welding

COURSE INFORMATION

ACCESS CONDITIONS

You should be a holder of a valid Code Certification as a Gas Metal Arc Welder (GMAW) in the 1F and 1G welding positions respectively to gain access to the course. Should you not meet these requirements you need to attend a one-week practical welding course enabling you to weld a Fillet and Plate in the 1F and 1G positions.

COURSE DURATION

5 days

PRICING (Including VAT)

Practical welding (if required)	**R 6 888**
Corporate Member	**R 17 100**
Non-Corporate Member	**R 18 490**

COURSE CONTENT

1. Safety around a robot
2. Welding procedures
3. Operating the pendant
4. Linear motion programming
5. Circular motion programming

About Robotic Welding

Individuals wishing to do robotic arc welding must understand the various issues that will be encountered when moving from manual application methods. Therefore, it is important for the individual to understand what must be controlled and by whom to produce sound welds

The Robotic Welder training course is designed to give the candidate the necessary theoretical and practical knowledge on welding technology by equipping him/her with the skills to manage all aspects of a robotic welding operation including design and programming of the welding task, safety and troubleshooting of the welding operation.

The course also serves as a foundation to more advanced robotic welder training.

JOHANNESBURG				
HRS	GROUP 1	GROUP 2	GROUP 3	GROUP 4
40	24 - 28 Jan	07 - 11 Mar	06 - 10 Jun	25 - 29 Jul
	GROUP 5	GROUP 6	GROUP 7	GROUP 8
40	05 - 09 Sep	19 - 23 Sep	17 - 21 Oct	05 - 09 Dec

For non-welders, a two week introduction to GMAW/Mig welding is required to teach the student how to operate the robotic welder, and also to give them a degree of welding skill.

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