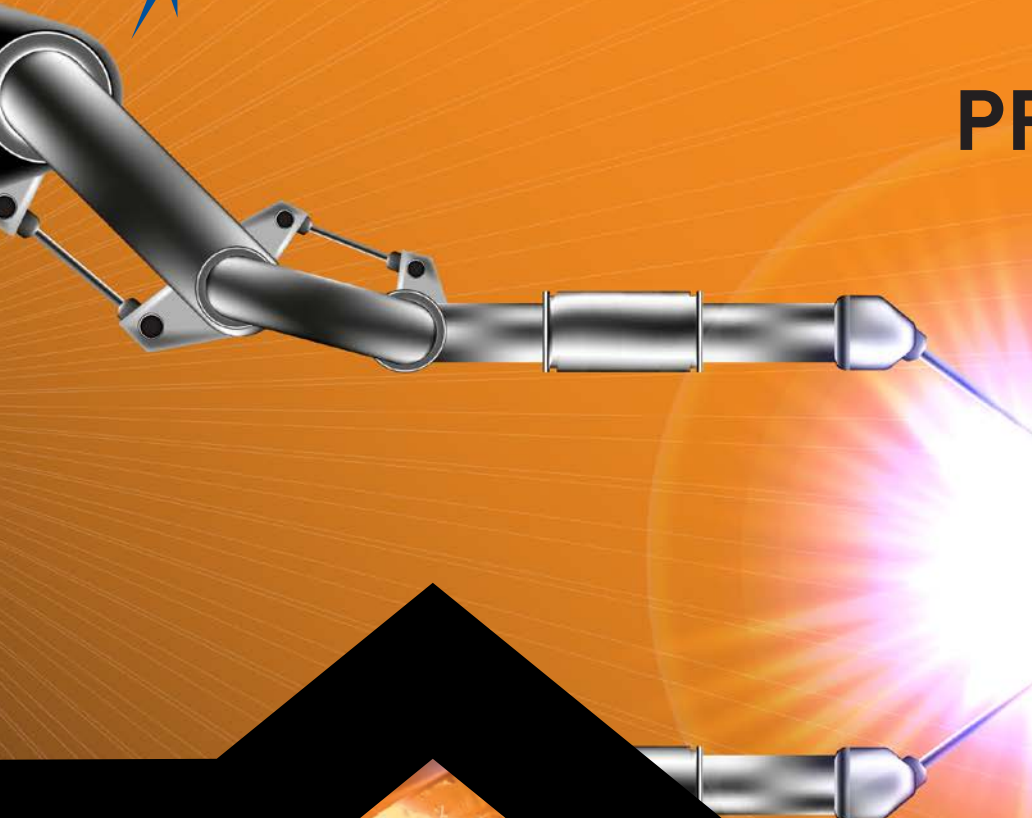




Southern African Institute of Welding

COURSE PROSPECTUS 2022



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

About Welding Co-ordinator Courses

SAIW welding supervisor courses were first introduced in the 1980s. They were designed with the help of industry representatives to ensure that welding supervisory personnel had adequate technical knowledge to develop suitable welding practices and procedures for their fabrication responsibilities and to provide the necessary support and instruction for production personnel.

The SAIW Welding and Fabrication Supervisor Level 1, 2 and 3 courses served industry well for about twenty years. In 2002 SAIW joined the IIW International Authorisation Body (IAB) and converted to the IIW system for education and training of welding personnel which is aimed at addressing the requirements of relevant ISO standards such as ISO 14731 welding coordination – tasks and responsibilities and ISO 3834 quality requirements for fusion welding. In the IIW system there are four levels of welding coordinator qualification namely, Practitioner, Specialist, Technologist and Engineer. SAIW offers courses leading to the International Welding Practitioner (IWP), International Welding Specialist (IWS) and International Welding Technologist (IWT) qualifications. SAIW provides support for the International Welding Engineer (IWE) programmes which are offered at the University of Pretoria and the University of Witwatersrand.

The IWP qualification is ideal for first line supervisory personnel such as a charge-hand in a fabrication shop or on a construction site. It is also ideal for a practical welding instructor. The IWS qualification has an increased level of theoretical content and is aimed at more senior production supervisors such as a senior foreman. It is also ideal for welding school instructors presenting theory and practical training modules. Welding and fabrication companies intent on producing high quality levels should consider these qualifications as mandatory requirements for their staff. The added knowledge gained by staff will reduce rejection rates and at the same time give confidence to clients. The IWT qualification is ideal for staff involved in production and technical management. IWT and IWE qualifications are suitable for staff with the overall responsibility for managing quality through approving the welding processes and procedures used in construction and manufacturing as well as leading teams of supervisors.

IIW Welding Practitioner

COURSE INFORMATION



Welding supervisors are tasked with the responsibility of improving the productivity of welders. With the correct training, welding supervisors will provide adequate support for welders, ensuring high quality production at minimal cost. The International Welding Practitioner (IWP) course is ideal for welding personnel who wish to progress their career and improve their knowledge of welding technology and quality control.

ENTRY REQUIREMENTS

1. A valid welder qualification certificate to weld in all positions without backing in at least one process, eg. 6G (H-L045) pipe weld without backing, or horizontal and vertical groove weld without backing.
2. The recommended minimum age of 20 years including 2 years working experience as a welder.
3. Welder qualification tests will be conducted on completion of the theory in the 6G positions and PF plate positions, in a choice of processes or materials.

COURSE OUTLINE

This course has both a theoretical and a class practical component and covers:

- Welding processes and equipment.
- Materials and their behaviour during welding, construction and design.
- Fabrication applications engineering.

Practical Welder training is carried out on an individual basis with the main processes being MMA, MIG/MAG, FCAW, TIG and Oxy-Fuel welding. Forty (40) hours are reserved to broaden the student's knowledge and skill in other relevant materials within this main process. An additional twenty (20) hours shall be reserved to give the student basic understanding of the possibilities of other processes.

On completion of the course, students will have an understanding of:

- The characteristics and main components of the most common arc welding power sources.
- The fundamentals of common and special welding processes and their applications.
- Consumables used in the different processes.
- Joint designs and weld configurations for specific materials, thicknesses, accessibility, different loadings and allowable tolerances.
- Basic metallurgy of steels, testing of materials and heat treatments.
- Defects encountered with the various welding processes.
- And more – see dedicated course brochure for additional details.



THE COURSE IS INTENDED FOR

Welding personnel who wish to improve their welding skills and knowledge to enable them to take on welding supervision tasks and positions.

COURSE DURATION

Theory 10 days
Exams 2 hours

PRICING (Including VAT)

Theory Only
Corporate Member **R 14,400**
Non-Corporate Member **R 15,135**

PLEASE NOTE

Students may be exempt from practical training provided they hold a welder qualification for multiple materials and can demonstrate experience of all the major welding processes.

COURSE SCHEDULE | IIW Welding Practitioner

JOHANNESBURG					
WEEK 1 AND 2	HRS	GROUP 1	GROUP 2	GROUP 3	GROUP 4
Welding Processes and Equipment	29	14 - 18 Feb	16 - 20 May	15 - 19 Aug	14 - 18 Nov
Materials and their behaviour during welding	23				
Construction and Design	6	21 - 25 Feb	23 - 27 May	22 - 26 Aug	21 - 25 Nov
Fabrication, application and Engineering	28				
Examination	2				



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IIW Welding Specialist



COURSE INFORMATION

The Welding Specialist course is aimed at equipping personnel with the necessary skills and technical knowledge to plan, execute, supervise and test welding operations within a limited technical field involving welded constructions. The course has been designed to meet the requirements of welding co-ordination personnel

ENTRY REQUIREMENTS

1. The recommended minimum age is 20 years.
2. A senior certificate (matric, N3) with a pass in mathematics and science or equivalent AND a minimum of 2 years of job related experience is required OR
3. Hold a General Education and Training Certificate (GETC – Grade 9) plus 5 years relevant metal working experience.

Candidates not meeting the above educational requirements will still be able to access the course through artisan qualification and experience. Contact the SAIW for more information.

COURSE OUTLINE

PRACTICAL

- The practical training component of the course is not intended to bring the skill of trainees to a specific competency level but is aimed at ensuring they are exposed to a number of different processes and are familiar with the reasons for typical defects arising during welding.
- Exemption is possible from the practical training module subject to a suitable CV showing experience with welding processes and is at the discretion of the Approved Training Body.

THEORY

- Welding Processes and Equipment.
- Materials and their behaviour during welding.
- Construction and Design.
- Fabrications, Applications Engineering.



Please contact client services on info@saiw.co.za or **011 298 2100** for further information

THE COURSE IS INTENDED FOR

Welding supervisors and coordinators and for personnel involved in training and technical sales.

COURSE DURATION

Practical 7 days
Theory 26 days
Exams 8 hours

PRICING (Including VAT)

	Theory Only	Practical Only	Combined
Corporate Member	R 48,600	R 9,505	R 58,105
Non-Corporate Member	R 52,540	R 9,505	R 62,045

COURSE SCHEDULE | IIW Welding Specialist

JOHANNESBURG DURBAN			
	HRS	JHB 1	JHB 2
Practical Welding	60	10 - 18 Jan	06 - 14 Jun
Welding Processes and Equipment	48	31 Jan - 07 Feb	18 - 25 Jul
Materials and their behaviour during welding	56	07 - 16 Mar	29 Aug - 07 Sep
Construction and Design	24	03 - 06 May	03 - 06 Oct
Fabrication, application and Engineering	54	30 May - 08 Jun	31 Oct - 09 Nov
Examination	8	27 Jun	02 Dec



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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

International Welding Specialist Courses

HYBRID (either physically at the SAIW or virtually)

To improve access to the International Welding Specialist course, the SAIW will be offering this virtually after hours. This will be conducted virtually online on Mondays to Thursdays from 6pm to 8pm and hybrid (either physically at the SAIW or virtually) from 8am to 3pm. The course will run for one week per month over 12 months.

PRICING (Including VAT)

International Specialist

Corporate Member	R 4 050 per month
Non-Corporate Member	R 4 378 per month

International Specialist Bridging

Corporate Member	R 4 167 per month
Non-Corporate Member	R 4 505 per month



AFTER HOURS COURSE SCHEDULE | IIW Welding Specialist

JOHANNESBURG | HYBRID

MODULE 1

WEEK 1	WEEK 2	WEEK 3	WEEK 4	EXAMS
09 - 12 May & 13 May	06 - 09 Jun & 11 Jun	11 - 14 Jul & 16 Jul		12 Aug

MODULE 2

15 - 18 Aug & 20 Aug	12 - 15 Sep & 17 Sep	10 - 13 Oct & 15 Oct	07 - 10 Nov & 12 Nov	05 Dec
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Module 3 & 4 dates will be issued at a later stage after completion of the first two modules.

AFTER HOURS BRIDGING COURSE SCHEDULE | IIW Welding Specialist

JOHANNESBURG | HYBRID

AFTER HOURS GROUP 1

WEEK 1	WEEK 2	WEEK 3	EXAMS
07 - 10 Feb & 12 Feb	07 - 10 Mar & 12 Mar	04 - 07 Apr & 09 Apr	23 - 26 May

AFTER HOURS GROUP 2

29 Aug - 01 Sep & 03 Sep	26 - 29 Sep & 01 Oct	24 - 27 Oct & 29 Oct	05 - 08 Dec
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Inspector to Specialist Bridging Course

COURSE INFORMATION

ENTRY REQUIREMENTS

1. SAIW Welding Inspector Level 2 qualification
AND
2. Meet the access conditions for Welding Specialist
3. Metalworking experience required

COURSE OUTLINE

PRACTICAL

- The practical training component of the course is not intended to bring the skill of trainees to a specific competency level but is aimed at ensuring they are exposed to a number of different processes and are familiar with the reasons for typical defects arising during welding.
- Exemption is possible from the practical training module subject to a suitable CV showing experience with welding processes and is at the discretion of the Approved Training Body.

THEORY

- Welding Processes and Equipment.
- Materials and their behavior during welding.
- Fabrications, Applications Engineering.



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or **011 298 2100** for further information

Welding Inspector route to obtain the **Specialist Diploma**

This bridging course is suitable for candidates who have completed SAIW Welding Inspector Level 2 and have been working in a welding supervisor/coordinator role. It enables these candidates to obtain the IIW International Welding Specialist diploma.

This course has a practical component and a one-week theory training module covering Welding Specialist syllabus requirements that are not covered in the SAIW Welding Inspector Level 1 and Level 2 courses.

This course is aimed at equipping personnel with the necessary skills and technical knowledge to coordinate welding activities within a fabrication environment. Welding supervisors and coordinators make a valuable contribution to welding operations especially with regards to cost, quality, productivity and safety.

The Bridging course provides a route for personnel to increase their welding knowledge and skills to fulfil welding supervision and coordination. role.

The normal access requirements for Welding Specialist apply and candidates will be required to write examinations for the four Welding Technology modules. Candidates will also be required to undertake the practical module. Exemption from practical welding may be possible if the candidate can demonstrate the requisite experience and knowledge of welding processes.

COURSE DURATION

5 days and 60 hours practical

PRICING (Including VAT)

	Theory Only	Practical Only	Combined
Corporate Member	R 12,500	R 9,505	R 22,005
Non-Corporate Member	R 13,515	R 9,505	R 23,020

PLEASE NOTE

Practical Welding Module may be exempt on application if the candidate has a welder qualification for multiple materials and can demonstrate experience of all the major welding processes.

COURSE SCHEDULE | Inspector to Specialist Bridging Course

JOHANNESBURG			
	HRS	JHB 1	JHB 2
IIW Specialist Bridging Courses	54	21 - 25 Feb	10 - 14 Oct
Examination	8	11 - 12 Apr	28 - 29 Nov

To obtain the Specialist Diploma, Level 2 plus IIW Specialist Bridging Courses must be completed



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IIW Welding Technologist



COURSE INFORMATION

ENTRY REQUIREMENTS

1. National diploma in Engineering from a Technical University (Technikon) OR
2. Higher level Engineering qualification OR
3. IWS diploma with 6 years work experience as a Welding Coordinator at an appropriate level within 8 years after receiving the IWS diploma OR
4. N6 Mechanical Engineering with 5 years welding experience on Technologist level in the last 10 years.

COURSE OUTLINE

- Welding Processes and Equipment including advanced welding processes.
- Materials and their behavior during welding including advanced materials.
- Construction and Design of welded fabrications.
- Fabrications, Applications Engineering covering welding standards & their use.

THE COURSE IS INTENDED FOR

Engineering personnel with a National diploma in engineering or an equivalent qualification, intending to pursue a career in welding fabrication and for engineers working in site and workshop fabrication.



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or **011 298 2100** for further information

An International Institute of Welding IIW Course

The welding technologist course is aimed at equipping personnel with the necessary skills and technical knowledge for the planning, executing, supervising and testing of the tasks and responsibilities in welding fabrication.

Engineering personnel intending to pursue a career in welding fabrication should apply for this course. It is suitable for engineers working on site and in fabrication workshops, in manufacturing, EPCM companies and end users. The qualification is referenced as suitable for employees with welding coordination responsibilities in ISO 3834 and ISO 14731 standards addressing welding.

It is also an excellent qualification for Welding Coordination Personnel with the responsibility for confirming the acceptability of welding procedures used in welded fabrications.



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COURSE DURATION

Practical 7 days
Theory 37 days
Exams 16 hours

PRICING (Including VAT)

	Theory Only	Practical Only	Combined
Corporate Member	R 78,000	R 9,505	R 87,505
Non-Corporate Member	R 84,325	R 9,505	R 93,830

PLEASE NOTE

The practical component aims to provide a candidate with knowledge on the control of the different welding processes. The candidate will become familiar with the problems and typical defects associated with incorrect use of the different welding methods.

Exemption is available from the practical training module on application with a suitable CV showing experience with all the welding processes, subject to the discretion of the Approved Training Body.

COURSE SCHEDULE | IIW Welding Technologist

JOHANNESBURG		
	HRS	JHB 1
Practical Welding	60	03 - 11 May
Welding Processes and Equipment	81	30 May - 10 Jun
Materials and their behaviour during welding	96	11 - 26 Jul
Construction and Design	44	15 - 19 Aug
Fabrication, application and Engineering	81	12 - 23 Sep
Examinations are held on 1 st day of the following module	4 x 4	17 Oct

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