IRSE Professional Examination / Advanced Diploma in Railway Control Engineering and Certificate in Railway Control Engineering Fundamentals: Guidance for all candidates and sponsors

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The Advanced Diploma is:
The high level that the professional exam always has been
A fast-track route to corporate membership of IRSE (AMIRSE / MIRSE / FRSE)*
A "top up" for approved qualifications to demonstrate knowledge and understanding for RIEng and CEng*
* Experience and responsibility required

Stand alone qualification and mandatory pre-qualification for anyone wishing to take Advanced Diploma*
* or has pass in numbered module or for 2021 only have sponsorship from senior member of IRSE

Advanced Diploma in Railway Control Engineering (aka the IRSE professional exam) requires passes in all four modules (or agreed combinations of numbered modules)
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1. Introduction

The IRSE professional examination has altered significantly in the last few years, adapting to changes within the profession, methods of examining and in 2020 to the challenges that the Covid-19 global pandemic brought.

IRSE’s Education and Professional Development (E&PD) Committee in March 2021 has agreed changes to previously announced rulesets to ensure that the maximum number of candidates can sit their chosen module(s).

Potential exam candidates are expected to read this document in full to ensure their understanding of the requirements of the exam. They are asked also to share this document with their exam sponsor (if required, see section 3.4).

2021 is a unique year, with new modules A to D available to be sat, along with module 2 for those who had booked to sit it in 2020.

All exam modules will be available to be sat online remotely in a suitable location for the candidate.

The candidate is responsible for ensuring that they have a suitable computer and internet access and is recommended to use the practice sessions to check this, see section 3 for requirements.

For logistical reasons, candidates can take a maximum of four (4) modules on the exam day.

For those wishing to sit modules B, C and/or D without a previous pass in any module, E&PD Committee have agreed an exemption for 2021 only, such that candidates can so with the agreement of a sponsor. The sponsor must declare that the candidate is capable of passing the exams in the relevant module(s) by signing the Sponsorship Declaration Form (SDF), see section 4.3.2.

Candidates for the Certificate (Module A) and those who have already passed any module (A or 1-7)) do not need a sponsor for 2021’s exams.

Exam day for everyone is Saturday 2 October 2021 at times allocated to candidates based on their geographic location, see Appendix B. Terms and conditions are given within the exam booking process and are additionally listed in Appendix A.
1.1. Certificate in Railway Control Engineering Fundamentals (Module A)

Anyone (members and non-members of the IRSE) can sit the Certificate in Railway Control Fundamentals (module A). There is no requirement to have a sponsor, although all candidates are encouraged to study with a buddy and/or gain the support from a more experienced colleague.

This module is a qualification in its own right. Anyone passing this module will gain the ‘Certificate in Railway Control Fundamentals’.

From 2022 onwards, for anyone who has not passed at least one current module (modules 1 to 7), a pass in the Certificate (module A) will be a compulsory requirement before modules B to D can be sat. E&PD Committee have agreed to an exemption from this requirement in 2021 only, such that anyone wishing to sit modules B, C and/or D without already having a pass in any module, they can do so with the agreement of a sponsor, see section Error! Reference source not found.

The module tests the candidate’s breadth of understanding of the fundamentals of the subject. The syllabus is available on the module A support resources page of the website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources/Module-A.

This module is 90 minutes duration in total. It is a computer-based exam.

1.2. Signalling the layout (module 2)

It is the intention that candidates who were registered to sit module 2 in 2020 and whose monies IRSE still hold will be offered the opportunity to sit module 2 on exam day 2021. This is subject to final confirmation by E&PD Committee.

The module tests the depth of understanding of the candidate. The syllabus is available on the module 2 support resources page of the website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources/Module-2.

This module is 90 minutes duration plus 10 minutes reading time and an additional period (duration to be confirmed) for uploading photographs of your answers. E&PD Committee have not yet decided what this additional upload times is – this will be announced later.

Whilst the module questions will be delivered by the exam software, candidates will be expected to signal the layouts by hand and will be able to type other answers directly into the exam software or hand write their answers and upload these.
1.3. Modules B to D

Only members of the IRSE who have no debt with the IRSE (including subscription fees) can sit modules B, C and D.

From 2022 onwards, for anyone who has not passed at least one current module (modules 1 to 7), a pass in the Certificate in Railway Control Fundamentals (module A) will be a compulsory requirement before modules B to D can be sat. E&PD Committee have agreed an exemption from this requirement in 2021 only, such that anyone wishing to sit modules B, C and/or D without an existing pass in any module, then they can do so with the agreement of a sponsor, who must be a Member (MIRSE) or Fellow (Fellow) of the IRSE and have no debt with the IRSE (including subscription fees). The sponsor must declare that the candidate is capable of passing the exams in the relevant module(s) using the Sponsorship Declaration Form (SDF), see later.

Those candidates who already have an existing pass in any module do not require a sponsor for the 2021 exams.

To complete the Advanced Diploma in Railway Control engineering, candidates must pass all four new modules (A to D) or have passed an agreed combination of old (numbered) and new (lettered) modules identified via the online calculator [irse.info/exam].

Modules B, C and D test the depth of understanding of the candidate. The syllabi are available on the support resources page of the website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources.

Each module is 90 minutes duration plus reading time and an addition period (duration to be confirmed) for uploading handwritten / hand drawn answers / diagrams. E&PD Committee have not yet decided what these additional reading / upload times are – these will be announced later.

Module questions will be delivered by the exam software and candidates will be able to type answers directly into the exam software or hand write their answers and upload these. Hand drawn diagrams can also be uploaded.
1.4. Introduction summary

Certificate in Railway Control Engineering Fundamentals (Module A)

• Available for anyone to sit (IRSE members and non-members)
• Stand alone qualification
• Tests the breadth of the candidate’s understanding
• No requirement for a sponsor
• Computer based exam
• 90 minutes duration total

Signalling the Layout (Module 2)

• Subject to E&PD's agreement that this will be available to sit in 2021
• Only available for those candidates who applied to sit module 2 in 2020 and whose monies IRSE still hold
• Questions will be delivered via exam software, answers can be typed directly and hand written answers and hand drawn diagrams will be able to be uploaded into the software
• 90 minutes plus reading and uploading time (to be agreed)

Modules B, C and D

• Only available to IRSE members
• Candidates must have an existing pass in a module or (for 2021 only) have agreement of a sponsor that they are capable of passing their module(s) by signing a Sponsorship Declaration Form (SDF)
• Questions will be delivered via exam software, answers can be typed directly and/or hand written answers and hand drawn diagrams will be able to be uploaded into the software
• Each module is 90 minutes duration plus reading and uploading time (to be agreed)
2. Key dates

The key dates for 2021 are listed below.

- **April**
  - Booking for 2021 exam opens for all

- **31 July 2021**
  - Deadline for all applications
  - Deadline for all SDFs (where required)
  - Deadline for all payments

- **September**
  - Practice papers available

- **2 October 2021**
  - Exam day (see Appendix B for timings, subject to confirmation)
3. Preparation and requirements

Our professional examination is prepared for and marked by IRSE volunteers who give a great deal of time and effort to assist in the professional development of others. It is therefore expected that candidates are fully prepared to sit their module(s) on Saturday 2 October 2021.

Support resources including syllabi for all modules can be found on the module pages of the IRSE website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources. In addition, the Younger Members section continue to provide exam preparation workshops which are advertised via social media and on the IRSE events page https://www.irse.org/Get-Involved/Events and which are recorded and available to view on the IRSE Vimeo page https://vimeo.com/showcase/study. In addition, there is an independent exam forum, run by volunteers, at https://irseexam.co.uk/. Further ideas for preparation are listed in section 7.

In 2021, all exams will be sat remotely and online.

3.1. Preparation and requirements for all candidates

All candidates need to be registered on the IRSE website if they are not already. If you have previously registered but cannot remember login details, please contact membership@irse.org and await their assistance. Please do not re-register.

All candidates must inform exam@irse.org of any special requirements they have for sitting their module(s) by 15 August 2021, including details such as medical certificates even if they have been sent in for previous exams.

Candidates are advised to find a quiet location where they will sit the exam where there are few distractions, has required equipment (see below) and reliable internet access.

Candidates are strongly advised to prepare for exam day by using the online practice session(s) which will be made available to all candidates in September.

The requirements for all 2021 candidates for computer equipment, hardware and software are:

- Internet access which enables you to reach the appropriate site(s) (see below) without your / your employer’s firewall blocking it
- A device with a reasonable size screen. We recommend not using a tablet but a device with a keyboard and mouse, whether that is built-in (i.e. laptop) or external (i.e. PC or laptop with additional keyboard and/or mouse). (Certificate in Railway Control Fundamentals (module A) candidates please see below for recommended screen size.)
- A webcam (built-in or external) which you will need to ensure is switched on at all times while you are sitting the exam. Some candidates will be using a second screen – you will not be penalised for doing so
- Non-programmable calculator
3.2. Certificate in Railway Control Engineering Fundamentals (Module A)

Anyone can take the Certificate in Railway Control Engineering Fundamentals (Module A), whether an IRSE member or non-member.

Support resources for Certificate in Railway Control Engineering Fundamentals (Module A) candidates are available on the IRSE website [https://www.irse.org/Qualifications-Careers/Exam-Support-Resources/Module-A](https://www.irse.org/Qualifications-Careers/Exam-Support-Resources/Module-A)

A practice exam will be made available to all Certificate of Railway Control Engineering Fundamentals (Module A) candidates for them to become familiar with the exam software.

The requirements for Certificate of Railway Control Engineering Fundamentals (Module A) candidates for computer equipment, hardware and software are:

- Requirements defined in section 3.1 plus
- Your internet must reach [https://examonline1.co.uk/org/IRSE/](https://examonline1.co.uk/org/IRSE/) without your / your employer’s firewall blocking it
- Suitable internet browser (Exam Online is compatible with most modern web browsers). You will have the opportunity to test this with your practice sessions.
- We recommend a screen size of at least 13 inches (measured diagonally).
- Pen and paper to make notes on.

### Certificate (Module A) preparation:

- Register on the IRSE website (if you are not already)
- Find a quiet location for exam day
- Read, revise and practice
- Ensure that all you have all computer equipment, hardware and software and you are used to using them
- Book your place by 31 July 2021
- Inform [exam@irse.org](mailto:exam@irse.org) of any special requirements
3.3. Signalling the layout (module 2)

This is subject to final confirmation by E&PD Committee.

Only those candidates who successfully applied to sit module 2 in 2020 and did not withdraw from the exam can sit this module in 2021.

Support resources for module 2 candidates are available on the IRSE website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources/Module-2 (requiring members’ login).

A practice exam will be made available to all module 2 candidates for them to become familiar with the exam software, including the downloading of question papers and uploading of answers.

The requirements for module 2 2021 candidates for computer equipment, hardware and software are:

- Requirements defined in section 3.1 plus
- Your internet must reach https://irse.moodle.tituslearning.com/login/index.php without your / your employer’s firewall blocking it
- Suitable internet browser (Moodle is compatible with the following browsers at their latest versions: Chrome, Firefox, Safari, Edge and Internet Explorer. If you are using a mobile device (not recommended), then it is compatible with MobileSafari and Google Chrome. Moodle is known not to be compatible with legacy browsers Internet Explorer 10 and below and Safari 7 and below.) You have the opportunity to test this with your practice sessions.
- A digital camera / smartphone / tablet or scanning device and the means to send the photo(s) / scan(s) to yourself or copy it (them) onto your desktop to upload into the exam software. Note that the maximum file size is 1GB. The maximum number of files which can be added to each question is 20. You will be given instructions on how to do this along with your practice sessions.
- Paper to make notes, draw and / or handwrite your answers on. This can be any blank paper (ruled or not ruled), you do not need IRSE “answer sheets” this year.
- Access to printer prior to the exam day to print out a blank layout (either in layout format or on A4 sheets)
- Black pen to write with
- Ruler

**Signalling the Layout (Module 2) preparation:**

- Find a quiet location for exam day
- Read, revise and practice
- Ensure that all you have all computer equipment, hardware and software and you are used to using them
- Subject to confirmation - Confirm your place by 31 July 2021 and inform exam@irse.org of any special requirements
3.4. Modules B to D

Applications to take modules B to D are only accepted from members of the IRSE who have no debt with the IRSE (including subscription fees).

For candidates who have not previously passed an exam module, E&PD Committee have agreed that in 2021 only, candidates can do so with the agreement of a Sponsor, who must be a Member (MIRSE) or Fellow (Fellow) of the IRSE and have no debt with the IRSE (including subscription fees). The Sponsor must declare that the candidate is capable of passing the exams in the relevant module(s), see section Error! Reference source not found., 5, Appendix C and Appendix D.

Those candidates who already have an existing pass in any module do not require a sponsor for the 2021 exams.

Support resources for module B to D candidates are only available on the IRSE website https://www.irse.org/Qualifications-Careers/Exam-Support-Resources (requiring members’ login).

Whilst the exam is an online exam, candidates have the option of typing and/or handwriting / drawing their answers. The typing input is like any word processing package and has a basic spell check and formatting (bold, bullet points, table function, etc) – Candidates planning to type their answers are strongly advised to type directly into the online software rather than typing into Word and then uploading those files.

A practice exam will be made available to all module B, C and D candidates for them to become familiar with the exam software, including the uploading of handwritten / drawn answers.

The requirements for module B to D 2021 candidates for computer equipment, hardware and software are:

- Requirements defined in section 3.1 plus
- Your internet must reach https://irse.moodle.tituslearning.com/login/index.php without your / your employer’s firewall blocking it
- Suitable internet browser (Moodle is compatible with the following browsers at their latest versions: Chrome, Firefox, Safari, Edge and Internet Explorer. If you are using a mobile device (not recommended), then it is compatible with MobileSafari and Google Chrome. Moodle is known not to be compatible with legacy browsers Internet Explorer 10 and below and Safari 7 and below.) You have the opportunity to test this with your practice sessions.
- If you are intending to submit handwritten and/or hand drawn answers, a digital camera / smartphone / tablet or scanning device and the means to send the photo(s) / scan(s) to yourself or copy it (them) onto your desktop to upload into the exam software. Note that the maximum file size is 1GB. The maximum number of files which can be added to each question is 20. You will be given instructions on how to do this along with your practice sessions.
- Paper to make notes, draw and / or handwrite your answers on. This can be any blank paper (ruled or not ruled), you do not need IRSE “answer sheets” this year.
- Black pen to write with
- Ruler
Modules B, C and D preparation:

Register on the IRSE website (if you are not already)
For those who do not have an existing pass in any module: find a sponsor (MIRSE or FIRSE) and discuss your revision plans

Find a quiet location for exam day
Read, revise and practice
Ensure that all you have all computer equipment, hardware and software and you are used to using them
Confirm your place by 31 July 2021
Inform exam@irse.org of any special requirements
4. Registration Process

The registration process for the 2021 exam is complex.

To give candidates sufficient time to book themselves for their exam module(s) as well as study for the exam, the booking dates have been extended until 31 July 2021 for all candidates.

Terms and conditions for the 2021 exam are detailed in Appendix A.

- Candidates whose monies IRSE holds from 2020 exam: please go to section 4.1.
- Candidates for Certificate (Module A) only, please go to section 4.2
- Candidates for Advanced Diploma (Modules A, B, C and D), please go to section 4.3
4.1. Candidates whose monies IRSE hold from 2020 exam

All candidates whose monies IRSE hold from the 2020 exam should email the exam team (exam@irse.org) with the following information:

- Name and IRSE membership / database number
- Credit note information (date, number and amount)
- Which module(s) they wish to sit in 2021

The exam team will process these applications manually.

IRSE will honour the amount already paid per module by these candidates however any additional module(s) being booked will be charged at the 2021 rate of £110 per module.

Candidates will be asked to read and accept the terms and conditions, including those around the remote exam and declaring any additional needs for them sitting the exam, see Appendix A.

If candidates have not passed any exam module(s) previously, then they will be required to complete and submit a Sponsorship Declaration Form (SDF), see section 4.3.2, by 31 July 2021. It is the Candidate’s responsibility to do so, the IRSE exam team will not chase.

Please note – Module 2 is still subject to confirmation by Education & Professional Development Committee so at present (19 April 2021) bookings will be noted but not confirmed.
4.2. Certificate in Railway Control Engineering Fundamentals (Module A)

Candidates for the Certificate in Railway Control Engineering Fundamentals (Module A) should book through the online event system, requiring login, through the IRSE exam event [https://www.irse.org/Get-Involved/Events/Event-Details/eventDateld/1253 or irse.info/bookexam21]. See Appendix E for a step-by-step of your booking journey.

Candidates will be required to pay the full fee (£110) online.

Candidates will be asked to read and accept the terms and conditions, including those around the remote exam and declaring any additional needs for them sitting the exam, see Appendix A.

The opportunity to book the Certificate in Railway Control Engineering Fundamentals (Module A) closes on 31 July 2021 for all candidates.
4.3. Advanced Diploma in Railway Control Engineering
(Modules A, B, C and D)

Candidates sitting modules B, C and D must be members of the IRSE who have no
debt with the IRSE (including subscription fees).

Candidates working towards a pass in the Advanced Diploma in Railway Control
Engineering are normally expected to have passed at least one module before being
allowed to sit modules B, C and/or D. E&PD Committee have agreed to an exemption
from this requirement in 2021 only, such that anyone wishing to sit modules B, C
and/or D without a pass in any module, can do so with the agreement of a sponsor.
This section has therefore been split to reflect these requirements.

Candidates are permitted to sit up to four (4) modules in 2021, by agreement of E&PD
Committee.

4.3.1. Candidates who have previously passed one or more
modules

Candidates who have previously passed one or more exam modules should book
through the online event system, requiring login, through the IRSE exam event
[https://www.irse.org/Get-Involved/Events/Event-Details/eventDateld/1253 or
irse.info/bookexam21]. See Appendix E for a step-by-step of your booking
journey.

Candidates will be required to pay the full fee (£110 per module) online.

Candidates will be asked to read and accept the terms and conditions, including
those around the remote exam and declaring any additional needs for them sitting
the exam, see Appendix A.

The opportunity to book exam modules closes on 31 July 2021 for all candidates.

The IRSE exam team will check after bookings have been made that each
candidate has no debt with the IRSE and have passed at least one exam module.
Candidates are reminded that exam fees are non-refundable, as detailed within
the terms and conditions (see Appendix A).

4.3.2. Candidates who have not passed exam modules
previously

For 2021 only, candidates who have not passed exam modules previously may sit
exam modules B, C and/or D (plus module A if they chose to do so) with an
agreement from a Sponsor.

Candidates are responsible for finding a Sponsor (who must be an IRSE Member
(MIRSE) or Fellow (FIRSE)) and who, wherever possible, knows their capabilities.
Candidates may know their Sponsor through work or through other means such as
attending IRSE local events and/or study groups. If the candidate is struggling
to find a sponsor, then they should contact the IRSE exam team (exam@irse.org)
as soon as possible asking for assistance.

The candidate and Sponsor should discuss the module(s) to be taken and the
candidate’s written study plan (which should describe, with target dates, how they
would like to study and prepare for the exam).
intend to prepare for the exam). The Sponsor may recommend enhancements to the study plan, evidence of study, and any other requirements that the candidate must deliver before the Sponsor is willing to endorse the exam application by signing (or emailing their confirmation) the Sponsorship Declaration Form in Appendix D.

Once the Sponsor has agreed to endorse the exam application, candidates should book through the online event system, requiring login, through the IRSE exam event [https://www.irse.org/Get-Involved/Events/Event-Details/eventDateId/1253 or irse.info/bookexam21]. See Appendix E for a step-by-step of your booking journey.

Candidates will be required to pay the full fee (£110 per module) online.

Candidates will be asked to read and accept the terms and conditions, including those around the remote exam and declaring any additional needs for them sitting the exam, see Appendix A.

Candidates then should send their completed signed SDF along with any associated correspondence, if required, to the IRSE exam team (exam@irse.org).

The opportunity to book exam modules closes on 31 July 2021 for all candidates and all SDFs should be received by this date.

The IRSE exam team will check after bookings have been made that each candidate and Sponsor have no debt with the IRSE, that the Sponsor is MIRSE or FIRSE and the candidate has submitted a completed SDF. Candidates are reminded that exam fees are non-refundable, as detailed within the terms and conditions (see Appendix A)
Start of IRSE exam registration process

Does IRSE hold monies from 2020 exam?

NO

Are you applying for Module A only?

NO

Have you previously passed IRSE exam module(s)?

NO

Get your Sponsor (a MIRSE or FIRSE) to sign your SDF

YES

Email exam@irse.org with your details, credit note information and which module(s) you wish to sit
Note: SDF will be required if not passed exam module previously

exam@irse.org will manually register you for your module(s)

YES

Use online booking to register and pay

End of booking process (subject to IRSE office checks)

Email exam@irse.org with signed SDF and booking reference

Use online booking to register and pay
5. Guidance for Sponsors

For 2021 only, E&PD Committee have agreed that candidates who have not passed exam modules previously may sit exam modules B, C and/or D (plus module A if they chose to do so) with an agreement from a Sponsor.

Sponsors must be a Member (MIRSE) or Fellow (Fellow) of the IRSE and have no debt with the IRSE (including subscription fees). There may be exceptional circumstances where this cannot be achieved, in which case the IRSE exam team will give permission for another senior manager or engineer to be Sponsor for a single candidate.

The purpose of sponsorship is to support the candidate in the exam preparation process so that they are likely to achieve a pass in the modules selected.

Sponsors are reminded that exams will be held remotely and online in 2021. This will benefit some candidates with no travel / accommodation arrangements and no “exam hall nerves” whereas other candidates may struggle to concentrate / focus without practice.

Sponsors are asked to remind the candidate about the Terms and Conditions of the exam, as detailed in Appendix A, including those around the remote exam and declaring any additional needs for them sitting the exam.

Should the Sponsor believe that a pass in a module is unlikely due to lack of study evidence, experience or any other factor(s), then the Sponsor will, in reality, be helping the candidate by not agreeing to endorse that module.

Sponsors are encouraged to use the Candidate Readiness Assessment in Appendix C, or similar, in helping them to reach their decision. This is for the Sponsor’s and candidate’s use only and should not be submitted to the IRSE exam team.

Candidates are responsible for getting their Sponsor’s endorsement for their chosen module(s) by signing (or demonstrating an email trail which states the same) the SDF in Appendix D in which the Sponsor declares that the candidate is capable of passing agreed module(s), based on their existing studies and their future study plans. This must be submitted to exam@irse.org by 31 July 2021 along with their booking.
6. Data protection

All information provided by candidates is held under General Data Protection Regulation (GDPR) 2018 rules regardless of which country the candidate’s home or workplace is.

We use candidate numbers to ensure that you are anonymised for marking purposes, and for that reason ask all module 2 and B-D candidates to write their candidate numbers, module number / letter, question and page numbers on any handwritten / drawn sheets.

Our exam partners are fully GDPR compliant. Contracts which have not been let yet will only be let to GDPR compliant organisations.

Data will be held and destroyed in accordance with IRSE processes.
7. Exam study resources

Both candidates and Sponsors should be aware of the range of resources available to support preparation for the exam. Note that some of the documents on the IRSE website can only be viewed if logged in as a member.

Those resources in **bold** are considered to be essential for candidates to make use of:

- **Information & Guidance for Candidates**
- **IRSE exam syllabi** (separate syllabus for each module, see document library on IRSE exam page [https://www.irse.org/Qualifications-Careers/IRSE-Exam](https://www.irse.org/Qualifications-Careers/IRSE-Exam)).
- **Study Guides** (separate study guides for each module, see document library of each module page of exam resources [https://www.irse.org/Qualifications-Careers/Exam-Support-Resources](https://www.irse.org/Qualifications-Careers/Exam-Support-Resources)). Note that for 2021, study guides have not been updated to reflect new modules B-D and therefore candidates should refer to old modules’ guides. [Membership login required for modules 2 and B-D]
- **Suggested Reading List for each module** (separate reading lists for each module, see document library of each module page of exam resources [https://www.irse.org/Qualifications-Careers/Exam-Support-Resources](https://www.irse.org/Qualifications-Careers/Exam-Support-Resources)). Note that for 2021, reading lists have not been updated to reflect new modules B-D and therefore candidates should refer to old modules’ reading lists. [Membership login required for modules 2 and B-D]
- **Recent examination questions and sample questions** (separate questions / papers for each module, see document library of each module page of exam resources [https://www.irse.org/Qualifications-Careers/Exam-Support-Resources](https://www.irse.org/Qualifications-Careers/Exam-Support-Resources)). [Membership login required for modules 2 and B-D]
- **For module 2 and modules B-D: sample answers for selected past exam questions with examiners’ comments questions** (for each module, see document library of each module page of exam resources [https://www.irse.org/Qualifications-Careers/Exam-Support-Resources](https://www.irse.org/Qualifications-Careers/Exam-Support-Resources)). [Membership login required for modules 2 and B-D]
- **Study Groups** (ask your colleagues or contact IRSE exam team exam@irse.org to find if there is a group near you and also see the Good Practice Guide for setting up your own group)
- **IRSE Exam Forum** ([https://irseexam.co.uk](https://irseexam.co.uk)), an independent website for sharing and networking
- **Younger Members’ Exam Study Days** (publicised in IRSE events calendar, IRSE Exam Forum, by email to those on Younger Members’ distribution list, members’ e-bulletins and via social media.
- **Annual IRSE Exam Review** organised by Younger Members’ section with feedback from examiners. Held annually and recorded, available on the [IRSE Younger Members’ study resources Vimeo page](https://vimeo.com/showcase/study)
- **IRSE Presidential papers, conference papers, published papers and local sections’ lectures**, note that examiners sometimes choose topical subjects when setting questions. Many are recorded, available on [IRSE’s Vimeo page](https://vimeo.com), are published in [IRSE News](https://www.irse.org/IRSE-News) [recent IRSE editions only available to IRSE members], [IRSE’s](https://www.irse.org)
Knowledge Base [no login required] and/or published, for example International Technical Committee’s papers

- IRSE News, containing technical papers and industry news, note that examiners sometimes choose topical subjects when setting questions. IRSE News is IRSE’s technical journal which is available to all members [recent IRSE editions only available to IRSE members]

- IET Library at Savoy Place, London, which is not open at present due to UK government rules. IRSE members are entitled to use IET library facilities when they are open, and are advised to make an appointment by phone or email prior to visiting

- Information accessed via internet search engines (but be aware that some websites are more reliable than others in terms of content)

- The IRSE member who has agreed to sponsor the candidate’s application to take the examination and others in the profession, e.g. mentor, colleagues, others met at local section events

- Events organised by IRSE local sections, Younger Members’ section and Minor Railways section, which do include technical visits and workshops in non-restricted times (Younger Members’ and Minor Railways sections)

- Technical events organised by other professional engineering institutions and publicised in the Rail Engineering Forum’s combined list

- Technical events organised by the Young Rail Professionals
Appendix A. IRSE professional exam terms and conditions 2021

IRSE Professional Exam 2021: Terms and conditions for the Advanced Diploma in Railway Control Engineering and Certificate of Railway Control Engineering Fundamentals

V1 approved by Education & Professional Development Committee March 2021

1. Fees paid are non-refundable unless the IRSE is at fault.
2. The exam date of Saturday 2 October 2021 is fixed and cannot be changed.
3. The candidate is responsible for informing exam@irse.org of any special requirements for them to sit exam modules by 15 August 2021 including the submission of any additional detail, for example medical certificates.
4. Candidates for modules B, C and D have the right to appeal against their results in accordance with the IRSE exam appeals procedure. Appeals will not be allowed for the Certificate in Railway Control Engineering Fundamentals (Module A).
5. Exam candidates will be given fixed time periods during which they will be able to log into and start their module(s). These will be fixed and will not be able to be changed.
6. Full results will be shared with IRSE Council for their monitoring of institution activities. Results of candidates who have passed one or more modules will be published in IRSE News unless the candidate has informed exam@irse.org by 1 October 2021.
7. Answers to exam questions submitted by candidates may be used anonymously for training purposes.
8. Candidates will not receive copies of their exam ‘scripts’ under any circumstances and the candidate specifically agrees to waive any rights under Freedom of Information etc. in this respect.
9. Full scripts of correct answers will not be published or shared with candidates.
10. Candidates can EITHER book Certificate in Railway Control Engineering Fundamentals (Module A) OR if they have previously passed IRSE professional exam module(s) (Modules 1-7 or Module A) book up to four (4) modules from Modules A-D. Exceptionally for 2021 only, candidates may book four (4) modules (A-D) if they submit a completed Sponsorship Form by 30 July 2021 to exam@irse.org with their booking details. In addition, candidates applying to sit one or more of modules B, C and D must be members of the IRSE with their subscription fees and any other dues paid.
11. Candidates agree to sitting exam module(s) online in their own home / office using their own / work computer and agrees to the following terms and conditions around these arrangements:

11.1. The candidate agrees that the IRSE has no liability whatever for any issues the candidate may experience when taking the exam associated with:

11.1.1. The speed / reliability / stability of the candidate’s internet connection.
11.1.2. Any perceived hardware deficiencies in the computer the candidate uses to sit the exam. E.g. speed / reliability of the machine or size / clarity of the screen.
11.1.3. Any software compatibility issues between the software utilised for sitting the exam and any other software resident on the computer that the candidate uses to sit the exam.

11.1.4. Any other issues related to IT equipment utilised by the candidate in sitting the exam or submitting their answers, which the candidate perceives may have disadvantaged them.

11.1.5. Any issues associated with the environment in which the candidate chooses to take the exam, which the candidate perceives may have disadvantaged them. e.g. background noise / sources of distraction etc.

11.1.6. Any disadvantage the candidate may perceive associated with their non familiarity with the software utilised for sitting the exam

11.1.7. The clarity / legibility of any scanned images which the candidate submits as part of their exam answers.

11.2. The software utilised for sitting the exam includes Anti Plagiarism functionality, and the candidate consents to the use of this functionality to screen their answers to the exam.

11.3. The software utilised for sitting the exam includes functionality to monitor the candidate visually during the exam for the purposes of fraud prevention. The candidate consents to the use of this functionality.

11.4. The candidate agrees not to copy or attempt to copy the examination questions from the software utilised for sitting the exam. The candidate further agrees not to discuss or communicate the content of the exam questions to any person within 24 hours of completing the examination (by any means including but not limited to telephone, social media, email, face to face discussion, chat rooms / discussion groups etc) nor to attempt to place any information relating to the content of the examination questions in the public domain.

11.5. The candidate warrants that his / her answers to the examination questions will be entirely his / her own work, and that during the examination he / she will not communicate or attempt to communicate with any other person in order to gain any advantage in the examination. Members of the IRSE are bound by the IRSE Code of Professional Conduct, which requires (amongst other things) honesty and integrity. Whether they are a member of the IRSE or not, the candidate agrees to apply these professional standards.

11.6. The candidate agrees that they will not seek to gain unfair advantage during the examination by consulting with text books, previously prepared notes, internet sites or other sources of information or reference.

11.7. The exam process will include a methodology for checking the identity of the candidate to a recognised photo ID document (e.g. passport). The candidate consents to this and to the IRSE storing (in accordance with normal data protection rules) images associated with the implementation of this methodology.

11.8. The candidate agrees that on receipt by IRSE of credible evidence of a breach by the candidate of conditions 11.4 or 11.5, then the IRSE reserves the right to impose sanctions on the candidate as it deems appropriate, which may include one or more of the following:
11.8.1. Not issuing a result for the relevant candidate / module.

11.8.2. Revocation of any IRSE Licenses the candidate may hold.

11.8.3. Expulsion of the candidate from IRSE membership indefinitely.

   The candidate agrees that the IRSE’s decision in this matter is final and is not subject to any appeal either to any other body or to any court of law. The candidate further agrees that in such circumstances the IRSE will not be liable to refund the fee paid by the candidate to take the relevant exam / module.

11.9. The candidate specifically forgoes any right to appeal the results of the examination arising from any issues listed in condition 11.1.
Appendix B. Timings for exam modules (subject to confirmation)

Candidates have expressed a wish over the years for their chosen exam centre and module time(s) to be confirmed as soon as they have booked.

In 2021 there are no exam centres and the below draft timetable is the current plan for exam modules, enabling candidates to plan their exam day. Confirmation can only be given when all booking has closed as these are based on 2 main assumptions: (1) there will be some candidates wishing to sit the maximum 4 modules and (2) candidates wishing to sit module 2 will not also wish to sit module C. If these assumptions are not correct, then the timetable will be reissued.

Please indicate on your booking form which country / city you are likely to be in on Saturday 2 October 2021 for you to be allocated timings correctly.

The timing windows will be set with some flexibility to allow for people to start their module(s) around the start time rather than exactly at that time.

Timings will be confirmed to all candidates in Universal Central Time (UTC).

Timings are based on 90 minute duration of the Certificate (module A), 120 minute duration of other modules (including reading / download / upload times to be confirmed) with a 30 minute break between modules. Durations will be set from the start of the exam module, that is when the candidate opens the “question paper”.

B.1. Australasia and Far East

Timings planned for candidates who will be in Australasia and the Far East on 2 October 2021*:

<table>
<thead>
<tr>
<th>Module</th>
<th>UTC</th>
<th>Local time e.g. Sydney</th>
<th>Local time e.g. Hong Kong, Beijing, Perth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate (Module A)</td>
<td>01:00-02:30</td>
<td>11:00-12:30</td>
<td>09:00-10:30</td>
</tr>
<tr>
<td>Module B</td>
<td>03:00-05:00</td>
<td>13:00-15:00</td>
<td>11:00-13:00</td>
</tr>
<tr>
<td>Module C</td>
<td>05:30-07:30</td>
<td>15:30-17:30</td>
<td>13:30-15:30</td>
</tr>
<tr>
<td>Module D</td>
<td>08:00-10:00</td>
<td>18:00-20:00</td>
<td>16:00-18:00</td>
</tr>
<tr>
<td>Module 2</td>
<td>05:30-07:30</td>
<td>15:30-17:30</td>
<td>13:30-15:30</td>
</tr>
</tbody>
</table>

* Timing window will allow some flexibility on start time. Duration of module(s) will be from start of the module.
**B.2. India and Middle East**

Timings planned for candidates who will be in India and the Middle East on 2 October 2021*:

<table>
<thead>
<tr>
<th>Module</th>
<th>UTC</th>
<th>Local time e.g. Delhi</th>
<th>Local time e.g. Riyadh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate (Module A)</td>
<td>05:00-06:30</td>
<td>10:30-12:00</td>
<td>08:00-09:30</td>
</tr>
<tr>
<td>Module B</td>
<td>07:00-09:00</td>
<td>12:30-14:30</td>
<td>10:00-12:00</td>
</tr>
<tr>
<td>Module C</td>
<td>09:30-11:30</td>
<td>15:00-17:00</td>
<td>12:30-14:30</td>
</tr>
<tr>
<td>Module D</td>
<td>12:00-14:00</td>
<td>17:30-19:30</td>
<td>15:00-17:00</td>
</tr>
<tr>
<td>Module 2</td>
<td>09:30-11:30</td>
<td>15:00-17:00</td>
<td>12:30-14:30</td>
</tr>
</tbody>
</table>

* Timing window will allow some flexibility on start time. Duration of module(s) will be from start of the module.

**B.3. Southern Africa and Europe (including UK)**

Timings planned for candidates who will be in Southern Africa and Europe (including UK) on 2 October 2021*:

<table>
<thead>
<tr>
<th>Module</th>
<th>UTC</th>
<th>Local time e.g. Johannesburg</th>
<th>Local time e.g. Paris</th>
<th>Local time e.g. London</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate (Module A)</td>
<td>07:00-08:30</td>
<td>09:00-10:30</td>
<td>09:00-10:30</td>
<td>08:00-09:30</td>
</tr>
<tr>
<td>Module B</td>
<td>09:00-11:00</td>
<td>11:00-13:00</td>
<td>11:00-13:00</td>
<td>10:00-12:00</td>
</tr>
<tr>
<td>Module D</td>
<td>14:00-16:00</td>
<td>16:00-18:00</td>
<td>16:00-18:00</td>
<td>15:00-17:00</td>
</tr>
</tbody>
</table>

* Timing window will allow some flexibility on start time. Duration of module(s) will be from start of the module.

**B.4. North America**

Timings planned for candidates who will be in North America on 2 October 2021*:

<table>
<thead>
<tr>
<th>Module</th>
<th>UTC</th>
<th>Local time e.g. Vancouver</th>
<th>Local time e.g. Toronto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate (Module A)</td>
<td>15:00-16:30</td>
<td>08:00-09:30</td>
<td>11:00-12:30</td>
</tr>
<tr>
<td>Module B</td>
<td>17:00-19:00</td>
<td>10:00-12:00</td>
<td>13:00-15:00</td>
</tr>
<tr>
<td>Module C</td>
<td>19:30-21:30</td>
<td>12:30-14:30</td>
<td>15:30-17:30</td>
</tr>
<tr>
<td>Module D</td>
<td>22:00-00:00</td>
<td>15:00-17:00</td>
<td>18:00-20:00</td>
</tr>
<tr>
<td>Module 2</td>
<td>19:30-21:30</td>
<td>12:30-14:30</td>
<td>15:30-17:30</td>
</tr>
</tbody>
</table>

* Timing window will allow some flexibility on start time. Duration of module(s) will be from start of the module.
## Appendix C. Candidate readiness assessment for Sponsors

This form has been prepared for Sponsors to ascertain the readiness of candidates for their preferred module(s). It is for the sponsor and candidate’s use only and should not be submitted to the IRSE exam team.

Tick, date or initial cells on the table to signify your (the Sponsor’s) assessment of the candidate’s preparedness for the exam, and the action required. Use a separate sheet for each module if you wish. Add supplementary notes as required.

<table>
<thead>
<tr>
<th>Candidate:</th>
<th>Sponsor:</th>
<th>Module(s):</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROGRESS</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved</td>
<td>In progress with enough time to achieve</td>
</tr>
<tr>
<td>Not started, but enough time to achieve</td>
<td></td>
</tr>
<tr>
<td>On course for achievement</td>
<td></td>
</tr>
<tr>
<td>More progress or effort needed</td>
<td></td>
</tr>
<tr>
<td>Not applicable or not necessary</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credible dated study plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant work experience</td>
</tr>
<tr>
<td>General examination</td>
</tr>
<tr>
<td>Use of Study Guides</td>
</tr>
<tr>
<td>Use of Suggested Reading List</td>
</tr>
<tr>
<td>Practice in answering past</td>
</tr>
<tr>
<td>Study of annual examination</td>
</tr>
<tr>
<td>Participation in exam forum</td>
</tr>
<tr>
<td>Participation in study group</td>
</tr>
<tr>
<td>Personal motivation</td>
</tr>
<tr>
<td>Previous exam attempts (modules and dates)</td>
</tr>
<tr>
<td>Other evidence</td>
</tr>
<tr>
<td>Notes (continue on separate sheet if required)</td>
</tr>
</tbody>
</table>

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Appendix D. Sponsorship Declaration Form (SDF) 2021

This form is only required for those applying to sit modules B, C and/or D without a pass in at least one module.

Sponsorship Declaration Form (SDF) 2021

If you have not yet passed any IRSE exam modules and wish to apply to sit one or more modules from modules B, C and/or D of the IRSE Exam in 2021, you must first gain endorsement by an IRSE Member (MIRSE) or Fellow (FIRSE) who becomes your Sponsor. It is your responsibility to find a Sponsor and to ensure this completed form is submitted within the timescales detailed within this Exam Application Guidance document.

Your Sponsor should be familiar with your capabilities and experience and considers that you are capable of passing your selected professional exam module(s). Your Sponsor must confirm their endorsement by completing this sections B and C of this form.

If you and/or your Sponsor are unable to physically sign this form, then forward all email correspondence to confirm their endorsement, see page 2 of this form.

Section A For the exam candidate: Please complete:

<table>
<thead>
<tr>
<th>Candidate name:</th>
<th>Candidate membership no:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section B For the sponsor and candidate: Please complete details for each exam module. Please note that a maximum of four modules can be sat in 2021.

<table>
<thead>
<tr>
<th>Module</th>
<th>Module Description</th>
<th>Fee</th>
<th>Candidate Selection?</th>
<th>Does the Sponsor fully support application?</th>
<th>Sponsor's initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module A</td>
<td>Certificate in Railway Control Engineering Fundamentals</td>
<td>£110</td>
<td>Yes / No</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Module B</td>
<td>Railway safety and systems engineering</td>
<td>£110</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Module C</td>
<td>Principles of railway control and communication systems</td>
<td>£110</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Module D</td>
<td>Applications of railway control and communication systems</td>
<td>£110</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Module 2</td>
<td>Signalling the Layout (2020 applicants only)</td>
<td>Previously paid</td>
<td>Yes / No</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section C For the sponsor: Please read and sign the declaration below.

The attention of the sponsor is particularly drawn to section 5 of the Exam Application Guidance 2021 document.

The above candidate has discussed with me the module(s) they intend to sit.

Where I have initialled the “fully support” column in section B, I declare that they are capable of passing, based on their existing studies and their future study plans.

Name: ___________________________ Date: __________

Membership No: _____________________ Grade: MIRSE / FIRSE Email address: ___________________________

Signature: ___________________________
<table>
<thead>
<tr>
<th>Candidate name:</th>
<th>Candidate membership no:</th>
</tr>
</thead>
</table>

**Section D For the candidate:** Please read and sign the declaration.

I confirm that I have booked to sit the modules listed overleaf and that the details on this form are correct.

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Membership No:</th>
<th>Name:</th>
</tr>
</thead>
</table>

Which modules have you applied to sit? (delete as required)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>2</th>
</tr>
</thead>
</table>

Exam booking information (from your email confirmation):

<table>
<thead>
<tr>
<th>Reference:</th>
<th>Date:</th>
</tr>
</thead>
</table>

Please email both pages of the completed form (and any associated correspondence, if necessary) to exam@irse.org after you have completed your online booking.

The IRSE exam team will check that both Candidate and Sponsor are members with no debt with the IRSE, that the Sponsor is MIRSE or FIRSE and that the Candidate has booked for exam module(s) which the Sponsor fully supports.

If you apply to sit the exam without this written authority, your application will be invalid and the exam fees will not be refunded.
Appendix E. Exam booking journey 2021

Please ensure you have all information to hand before you start your booking including your payment credit / debit card.

E.1. Booking journey step 1 of 8
E.1.1. Put today's date in the effective booking date.

E.1.2. Scroll down checking all information is correct (taken from your IRSE database record) and click 'next'.
E.2. Booking journey step 2 of 8

E.2.1. This just confirms that you are the ‘delegate’ of this booking, that is you will be the exam candidate – Click on ‘next’
E.3. Booking journey step 3 of 8

E.3.1. Please complete the full information on this page, including special requirements (if none, then state ‘none’) and which country (time zone) you expect to be in on exam day, Saturday 2 October 2021. This information will be used to define your module timing(s).

E.3.2. Then click ‘next’ – Note all fields in this step are mandatory.
E.4. Booking step 4 of 8

E.4.1. Please choose which exam package you are booking for in 2021.

You are reminded of the terms and conditions in Appendix A – Only IRSE members can sit modules B, C and D.

When you have made your choice, the amount which you will be charged will appear above your package selection (£110 per module in 2021).

E.4.2. click ‘next’
E.5. Booking journey step 5 of 8 (Advanced Diploma candidates only)

E.5.1. Choose which module(s) you are applying to sit.

You are reminded of the terms and conditions in Appendix A – Only IRSE members can sit modules B, C and D and they must have previously passed any module or have their sponsor’s signature on their SDF.

E.5.2. Click on ‘next’ when you have chosen the right amount of modules.
E.6. Booking step 8 of 8 (steps 6 and 7 not used)

E.6.1. Check all fields of this final summary, ensuring that you have chosen the correct package (number of modules) and the modules you wish to sit.

E.6.2. Choose where you want the invoice (receipt) sent to and your billing address for your credit card.

E.6.3. Click on ‘finish’
E.7. Payment for your exam module(s)

E.7.1. You will be taken through the payment process using our secure online payment system (using SagePay)

E.7.2. Once payment is complete, you will receive an email from the IRSE with your booking information, including booking reference.

E.7.3. If your payment is incomplete, then you are not booked into the exam – Please email exam@irse.org with your name, membership / IRSE ID and information about when you were booking and for which module(s) for the exam team to help you further.