

**ROYAL COLLEGE OF SURGEONS  
IN IRELAND**



**REGULATIONS RELATING TO THE  
TRAINING, EDUCATION AND EXAMINATION  
OF CANDIDATES FOR**

**DIPLOMA OF FELLOW IN  
THE FACULTY OF RADIOLOGISTS -  
RADIODIAGNOSIS  
F.F.R.R.C.S. (Ireland)**

**Please see our website: [www.radiology.ie](http://www.radiology.ie)**

**Revised May 2020**

1. The Fellowship of the Faculty of Radiologists may be granted to those who possess a qualification registrable in the Irish or British Medical Registers and to graduates of Universities and Medical Colleges overseas whose degrees are not registrable in the Irish or British Registers, under such conditions as may be determined by the Council of the College, on the advice of the Faculty, in each individual case.

Applications in such special cases must be addressed to the Registrar of the College (see Para. 2) and must be accompanied by certificates showing the date of qualification and particulars of relevant postgraduate experience.

2. Candidates for the Fellowship are required to pass two examinations, namely the Primary Examination and the Final Examination.

3. All enquiries and communications with reference to the examination for the Fellowship must be addressed to the Academic Operations Manager, RCSI, Student Academic & Regulatory Affairs, 123St. Stephen's Green, Dublin 2.

4. Applications should be completed on line <https://postgradexams.rcsi.ie/public/openexams> by the closing date. Fees may be paid online by credit card.

5. Application for admission to the examination must be accompanied by the required certificates and the full amount of the fee payable for the examination.

6. The dates of the examination are published online at [https://www.rcsi.ie/professional\\_exams](https://www.rcsi.ie/professional_exams) If insufficient candidates present for an examination the Faculty reserves the right to cancel the examination with due notice. If more candidates present for an examination than can be accommodated, first preference will be given to those in the training programme of the Faculty of Radiologists. Others will be added in sequence, arranged in order by the date of receipt of their fully completed application, required certificates and the full amount of the fee payable online.

Details of the examinations are to be made available on the RCSI website, <https://postgradexams.rcsi.ie/public/openexams>

7. A candidate who wishes to withdraw from the examination should refer to the policy available at [http://www.rcsi.ie/postgraduate\\_exams\\_policies](http://www.rcsi.ie/postgraduate_exams_policies)

8. A candidate who desires to make representations with regard to the conduct of his or her examination shall address them via the appeals process of the policy available at [http://www.rcsi.ie/postgraduate\\_exams\\_policies](http://www.rcsi.ie/postgraduate_exams_policies)

9. The Faculty may refuse to admit to an examination or to proceed with the examination of candidates who infringe any of the regulations or who are considered by the examiners to be guilty of behavior prejudicial to the proper management and conduct of the examination.

10. The Fellowship Advisory Committee of the Faculty shall be empowered to require evidence of satisfactory training i.e. attendance at lectures and evidence of practical

experience e.g. Log books, certification of head of department etc. before acceptance for admission to the examination.

11. Candidates on the Irish Training Programme are expected to sit the Faculty Examinations.

12. With respect to candidates who were eligible to sit the Part 1 or 2 exams in April and May 2020 but had those examinations cancelled by the COVID-19 pandemic. All of these candidates will have their limits of time to completion of the fellowship as outlined in paragraph 21 extended by 6-months. The cancelled exams shall not count as an examination attempt.

### **PRIMARY EXAMINATION IN RADIOLOGY**

13. The examination will be held in May and September unless otherwise ordered. A candidate may only attempt on four occasions the Part 1 Fellowship Examination of the Faculty of Radiologists of the Royal College of Surgeons in Ireland or equivalent examination with reciprocal recognition. A candidate must make their four Part 1 attempts at consecutive sittings of the FFR RCSI examination or equivalent examination with reciprocal recognition, other than in exceptional circumstances or unless so directed by the FFR Part I examiners. In such circumstances, application must be made to the Fellowship Advisory Committee (whose decisions on these matters must be ratified by the Board) for permission to defer an attempt to the next exam sitting.

14. This examination may not be taken until two years after full registration (i.e. a minimum of 3 years after graduation, e.g. MB.). Candidates should have at least one year's recognized clinical experience after full registration and one academic year of clinical experience in Radiology in a recognised centre, but other experience may be approved subject to individual consideration by the Faculty.

15. The Examination shall consist of:

- (a) A Multiple Choice Paper
- (b) A Digital Image Examination with Multiple Choice Paper
- (c) Viva Voce.

16. The subjects of the Examination are:

Physical Basis of Medical Imaging

A basic knowledge is assumed.

Introduction to Atomic and nuclear Physics, the production and properties of X-rays, and nuclear radiations.

X-ray tubes, general radiographic systems, and systems for special application.

Interaction of X and gamma rays with matter, and the importance of interactions in producing subject contrast. Measures to optimise subject contrast.

The photochemical process, film screen combinations and optimization of radiographic contrast.

Image intensifier/TV systems for fluoroscopy and their application in special systems for digital fluoroscopy, DSA and other special applications.

Production of properties of radionuclides and their incorporation into radiopharmaceuticals.

Nuclear Imaging systems, the gamma camera and special nuclear imaging devices, the basics of PET imaging.

Treatment of images as digital arrays and basic image processing techniques.

Biological effects of radiation at the cellular and epidemiological levels, the ICRP system of dose limitation. European and National Regulations.

Biophysics and technology of ultrasound imaging.

Biophysics and technology of computer tomography.

Biophysics and technology of magnetic resonance imaging.

Hard copying devices for modern medical Imaging Systems

Quality assurance procedures and systems for all of the above.

Principles of digital imaging.

Physical aspects.

The photographic process, characteristics of X-ray film, xeroradiography

Variation in X-ray exposure factors.

Definition and image quality.

Radiological Anatomy:

The normal anatomy of areas demonstrable by imaging and the techniques required to display them.

General Radiography:

Standard projections.

Soft tissue radiography and mammography, micro and macro-radiography.

Localisation techniques and tomography.

Special investigations, contrast media and pharmacological aids:

Familiarity with day-to-day examinations and outline knowledge of the requisites of less common investigations.

Uses and relative advantages of contrast media and pharmacological aids and contra-indications .

Treatment of reactions and resuscitation methods.

Molecular/ Translational Imaging: Elements of this emerging field may be introduced by the Board, on the recommendation of the Education Committee, as it develops.

## **FINAL EXAMINATION OF RADIOLOGY**

17. Part 2a and Part 2b of the examinations may be attempted after the candidate has acquired satisfactory assessments from a recognised training centre, for the first three years of training.

18. Candidates must have experience of all modern imaging techniques.

19. The examination shall consist of two parts. Part 2a and Part 2b. Part 2a is a written examination. Part 2b will consist of Clinical Radiology components (see below).

The examination is held in the months of September and November unless otherwise ordered. Repeat examinations may be held in February and April depending upon candidate numbers presenting.

20. Candidates may attempt Part 2a and Part 2b in any order and are not required to pass one before sitting the other.

21. The Part 2 examination will be in Clinical Radiology. It will consist of some or all of the following:

(a) Part 2a: This will be 2 written papers in Clinical Radiology comprising of a combination of Single Best Answer & Extended Match Questions.

(b) Part 2b. This will be a combination of the following assessments:

Viva Voce in Clinical Radiology.

Digital image reporting session.

Rapid reporting session.

Candidates are allowed a maximum of six attempts at each at both Part 2a and Part 2b., subject to the following conditions:

1. All attempts at the Final Fellowship examination must be made within nine years of the date of commencing training in Radiology in an approved training scheme.

2. After a candidate has failed either the Part 2a or 2b examination three times, approval to make a 4<sup>th</sup> attempt at the examination will depend on review of their training performance and previous examination performances by the National Training Coordinator and the Fellowship Advisory Committee (FAC); a satisfactory review will be required before such an application will be accepted.

3. A candidate wishing to make any attempts at the Part 2a or 2b examination beyond four must apply in writing to the Fellowship Advisory Committee of the Faculty for permission to do so.

4. This application must be supported by a letter from the head of the department in which the candidate is working at the time of the application confirming the candidate's suitability for a further attempt at the exam

5. The Fellowship Advisory Committee will then seek a recommendation from the Part 2 examiners regarding the candidate's suitability for a further attempt; this recommendation will be based on the performances by the candidate in previous attempts, and may include appropriate comments arising from these previous attempts.

6. The Fellowship Advisory Committee will then make a recommendation, to be ratified by the Board of the Faculty, as to whether the candidate should be allowed attempt the exam at the sitting applied for. The candidate can only apply to the examinations office to sit the exam after receiving written permission to do so from the Faculty Board.

7. In exceptional circumstances, a recommendation may be made in writing by the Chief Final Examiner to the Faculty Board that a candidate should be permitted a 7<sup>th</sup> and final attempt at either Part 2a or Part 2b of the Final Examination. In the case of Part 2b, such a recommendation may only be made arising from a direct request by the external examiners to the Chief Examiner, made during the final Examiners' meeting on the day of completion of the candidate's unsuccessful 6th attempt, based upon their assessment that the candidate was extremely close to a passing mark on the 6th attempt. The Board of the Faculty may ask the advice of the relevant National training authority before making a decision on such a recommendation. Any such 7th attempt approved by the Board must be made within the next 2 sittings of the examination following the candidate's unsuccessful 6th attempt.

Any candidate seeking to bypass this mechanism or to solicit such a recommendation for a 7th attempt after the completion of the Examiners' meeting, will be automatically disqualified from any further attempts at the examination.

8. The Board of the Faculty reserves the right to alter or remove the provision in paragraph 7 above, and other provisions in these regulations, should it be requested to do so by the relevant Accrediting authority (currently The Medical Council).

### **GUIDANCE NOTES FOR THE FINAL FELLOWSHIP EXAMINATION** **(RADIOLOGY):**

#### **Ultrasound, Computed Tomography, Radionuclide Imaging, Magnetic Resonance Imaging, Fluoroscopy and Interventional Radiology:**

Candidates will be expected to demonstrate that they have gained practical experience in basic imaging and interventional techniques including the value and limitations of imaging modalities in addressing various clinical problems.

They are expected to be familiar with current radiological practice in the use of Ultrasound, CT, Radionuclide Imaging, Magnetic Imaging, Fluoroscopy and Interventional Radiology, together with General Radiology.