

# **STUDY GUIDE**

## **DIPLOMA OF THE ROYAL MICROSCOPICAL SOCIETY**

An introduction to the Diploma of the Royal Microscopical Society



Administered by the Outreach and Education Committee of the  
Royal Microscopical Society on behalf of the Trustees of the Society

Correspondence on all matters relating to the Diploma should be addressed to:

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# I INTRODUCTION

## I.1 HISTORY

The Royal Microscopical Society was founded in 1839 as the Microscopical Society of London. In 1866 it was granted its Royal Charter and became the Royal Microscopical Society. Since then it has been at the forefront of microscopy, and it draws members from all over the world.

The Society has charitable objectives which are –

*to promote the advancement of microscopical science by such means as the discussion and publication of research into improvements in the construction and mode of application of microscopes and into those branches of science where microscopy is important.*

Within this is the commitment to encourage members to improve and develop their skills. Qualifications play an important part in this.

## I.2 OVERVIEW OF THE DIPLOMA

The Diploma from the Royal Microscopical Society is attained via a flexible portfolio-based course of study. You will design this course of study with the assistance of your local supervisor, and with input from existing expert members of the Society. As a result, it will be a challenging and rewarding experience, and at the same time it should fit with, and complement, your existing employment.

All applicants must be employed in a role where microscopy or flow cytometry is a significant component. In addition, they should have a bachelors degree AND/OR a minimum of 3 years of experience in that or a similar role.

*The candidate should currently undertake microscopy as a significant component of their work and use the project to enhance their understanding of microscopy by developing, optimising or applying protocols or applications.\**

During your course of study you will attend one of the Society's renowned courses where you will be instructed by eminent microscopists in your field, and have valuable hands-on and group time to address your weaknesses and to build on your strengths. If you are resident outside of the European Union you may be able attend a non-RMS course, providing that the RMS is satisfied that it meets your requirements.

Your final portfolio will demonstrate a range of skills and capabilities; not just technical, but also your ability to communicate these to both specialist and non-specialist audiences.

At the end of your study – which most candidates will complete within two to five years you will have improved your existing skills - and should have acquired new ones - that will be of great benefit to your career and your employer for many years to come.

\* in exceptional circumstances we may consider applications from candidates whose primary employment is not in a microscopy role if (a) the level of knowledge, skills and expertise is considered appropriate and (b) access to appropriate equipment and resources is demonstrated.

## 2 STUDY FOR A DIPLOMA

Studying for a Diploma is open to all members of the Society who meet the qualifying criteria. The award is made to those members who are professionally active in microscopy and who have used *the project to enhance their understanding of microscopy by developing, optimising or applying protocols or applications*.

The Society is currently pursuing a path to become licensed by the Science Council to award Chartered Scientist. When this is in place, a Diploma should provide a pathway to Chartered Scientist. Other pathways to Chartered status include a Masters (or higher) qualification in microscopy coupled with significant experience within the field.

Undertaking a Diploma is a clear demonstration of your commitment to improving your skills and to promoting awareness of microscopy to a wider audience. And, it is a clear statement of your commitment to continuing professional development. During your study, you will have the support of the Society plus access to the experience of the Society's Fellowship. Your period of study should be demanding and challenging and, at the same time, it should be enjoyable and fulfilling.

One of the attractive features of the programme of study is that it is designed by you to fit in with your current employment. However, should you need assistance in the design, then members of the Society will be on-hand to help you.

Once your study programme has been agreed, you will continue to have the support of the Society – via a designated mentor – and from your local supervisor. Further support can be obtained through attending meetings of the Society, and by becoming more actively involved with it.

The sections that follow will guide you through the registration process, and they should provide a clear indication of what is expected of you if you are to be awarded a Diploma of the Royal Microscopical Society.

### 2.1 STEP 1: PRE-REGISTRATION

Once you have read this document, the first step to a Diploma is to complete the Study Proposal Form which can be found on the Society's website. In this, you provide personal details and a description of your proposed study. The form should then be submitted.

Your proposal will be considered by members of the Society's Outreach and Education Committee and they may seek input from other Fellows of the Society. They will take one of three decisions –

- To accept your proposal
- To accept your proposal subject to their suggested amendments
- To reject your proposal

The Committee's decision is final and it is under no obligation to enter in to correspondence with the candidate.

## 2.2 STEP 2: REGISTRATION

When your proposal has been accepted you will be informed in writing. You will be sent contact details of your mentor and a link to the website for your templates.

## 2.3 STEP 3: STUDY PERIOD

A Diploma can be completed within two to five years. However, the Society understands that the demands of employment can change, so it may be that you need a little longer. You are responsible for your work and you have up to five years from the date of acceptance to submit your portfolio.

The study period should not normally exceed five years. However, the Society understands that your situation may change during the course of study and it will consider requests for an extension and provide a written response. If you wish to appeal the Committee's decision, you can do so. This appeal will be made to the Executive Committee of the governing Council of the Society. Its decision will be final and it is under no obligation to enter in to correspondence.

All written documents should be written in a good standard of English. At six-monthly intervals during the period of study, you will submit brief progress reports that include input from your local supervisor (*Progress Report form*). These will be due on the 1<sup>st</sup> February and 1<sup>st</sup> August each year. Therefore the first report may be within 6 months of you beginning your course of study.

## 2.4 STEP 3: STUDY OUTCOMES

During the study period you will –

### Course Attendance, Report and Feedback

Attend one of the Society's courses and provide a report (500-800 words) on that course, and obtain feedback from the course leader (see *Course Leader Feedback form*) regarding your competence. If you reside outside of the European Union and choose to attend a non-RMS course, you may be asked to provide an extended report.

### Meeting Attendance and Report

Attend one or more of the Society's meetings during the period of study and provide a brief report (500-800 words) on the meeting(s). For candidates from outside the European Union, the Society's biennial Microscience Microscopy Conference and Exhibition is recommended.

### Technical Essay

Produce a 2,000-2,500 word technical essay to demonstrate understanding of the principles of microscopy. This should be based around the type of microscope that will be used most during the project - including how it is (and should be) set up and the importance of this. The technical essay should be written in a good quality of scientific English and referenced according to an accepted format (see *Guidelines for Referencing Scientific Writing*). It should also include references to literature about preparation techniques, if appropriate, (relating to the particular sample type) and why it is so important to get this right. When completed you should submit the technical essay to your Mentor and act on any feedback received. Your mentor then needs to approve the technical essay and to

sign the RMS Mentor Report. We would recommend you complete your technical essay first and then start on your final project report.

### Outreach Activity

Produce at least one of the following –

- a broad-appeal article (2,000-2,500 words) for *infocus* magazine that describes the project and its results to a wide audience. This will be published at the discretion of the Editor (see *infocus submission guidelines on the RMS website*)
- evidence of presenting work to peers – including feedback from peers (see *Peer Review Feedback form*). This may be at an internal meeting, but presenting to an external audience is encouraged
- evidence of an outreach activity that promotes and increases understanding of the field of study – including a description of the activity and the benefits to the participants and yourself (1,000-1,500 words)

### Final Project Report

Produce a final project report (8,000-10,000 words, excluding references) that demonstrates that you have used the project to enhance your understanding of microscopy by developing, optimising or applying protocols or applications (see *Final Project Report template and Guidelines for Writing the Final Project Report*). The report should be in the style of a research article with sections entitled Introduction, Aims and Objectives, Materials and Methods, Results, Discussion and Conclusion. The project should be written in good quality scientific English and referenced according to an accepted format (see *Guidelines for Referencing Scientific Writing*). When completed you should submit the final project report to your Mentor and act on any feedback received. Your mentor then needs to approve the final project report and to sign the RMS Mentor Report.

The above will comprise of your RMS Diploma portfolio.

## 2.5 STEP 4: SUBMISSION AND DECISION

Each item within the portfolio, along with progress reports, should be placed in the appropriate section of your portfolio binder.

When your Mentor has approved your technical essay and final project report you should submit electronic copies of your technical essay and final project report to the RMS office. These documents will then be sent to an external examiner.

The external examiner will produce a report and may make one of the four recommendations –

- Accept (without amendments)
- Accept with minor revisions (amendments to be made within a 3 month period)
- Accept with major corrections (amendments to be made within a 6 month period)
- Reject and fail (the work does not reach Diploma standard and cannot be made to reach the required standard)

You must make any revisions which are **required** by your examiner. The external examiner may also make recommendations which you are not required to make but you may choose to do so.

Once these amendments have been made, you should re-submit within the correct timeframe.

Once these amendments have been approved you should then submit an electronic copy of your Diploma portfolio.

Your Diploma portfolio will then be examined as a whole. You may be asked to make some final changes before being awarded your Diploma.

Once your Diploma portfolio has been examined and accepted, you should submit one hard copy of your completed portfolio in a ring binder folder. This will be retained in the Society's library with restricted access.

If a Reject and fail decision is made by the external examiner, the Outreach and Education Committee will review the candidate's work and produce a brief report, citing the reasons for its decision. This report will be shared with you.

### ***Right to appeal***

You have the right to appeal against the decision of the Committee. This appeal will be made to the Executive Committee of the governing Council of the Society. Its decision will be final and it is under no obligation to enter in to correspondence.

## **2.6 STEP 6: AWARD**

If your portfolio is accepted you will be informed in writing and you will have the right to display the post nominal DipRMS. The formal award will be made at the first Annual General Meeting of the Outreach and Education Committee after your award date.

## **2.7 FURTHER INFORMATION**

If you require further information on the Diploma you can contact the Society by email [kate@rms.org.uk](mailto:kate@rms.org.uk)