MODULE SPECIFICATION – POSTGRADUATE PROGRAMMES

KEY FACTS

<table>
<thead>
<tr>
<th>Module name</th>
<th>Binocular Vision</th>
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<tbody>
<tr>
<td>Module code</td>
<td>OVM033</td>
</tr>
<tr>
<td>School</td>
<td>School of Health Sciences</td>
</tr>
<tr>
<td>Department or equivalent</td>
<td>Division of Optometry and Visual Science</td>
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<tr>
<td>UK credits</td>
<td>15</td>
</tr>
<tr>
<td>ECTS</td>
<td>7.5</td>
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<tr>
<td>Level</td>
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MODULE SUMMARY

Module outline and aims

Over the past few decades there have been major advances in our understanding of binocular vision and eye movement control. In parallel to this, new methods for the investigation of binocular visual anomalies have emerged and some exciting forms of treatment are starting to be used in both ophthalmological and optometric practice. The high level of information imparted on this module is informed by developments at the forefront of vision research.

This module aims to provide you with:
- an in-depth understanding of the normal and abnormal binocular visual pathway
- an in-depth knowledge of the normal physiology of the extraocular muscles, their actions and innervation
- an in-depth knowledge of the higher brain centres that control different types of binocularly-coordinated eye movements
- an advanced specialised theoretical background knowledge and practical skills necessary to investigate and manage a range of binocular vision problems
- the ability to define the features of complex binocular vision problems and their differential diagnosis
- up-to-date clinical and research information of the highest quality, imparted by experts in the field, thus establishing a common standard

Content outline

On this module, you will learn about:

The normal binocular visual pathway
Anatomy of the extra-ocular muscles (EOMs), their actions and innervation
Neurology of eye movements
Investigation of heterophoria
Management of heterophoria
Convergence and accommodative anomalies
Concomitant strabismus investigation and management
WHAT WILL I BE EXPECTED TO ACHIEVE?

On successful completion of this module, you will be expected to be able to:

Knowledge and understanding:

- Demonstrate an in-depth knowledge of the functional neuro-anatomy relating to the binocular visual system
- Provide a detailed explanation of, and differentiate between the aetiology, investigation and management of binocular vision anomalies
- Provide a detailed explanation of, and differentiate between the aetiology, investigation and management of binocular vision anomalies
- Provide patients with up to date advice concerning complex binocular vision problems
- Recognise the most appropriate tests for investigating patients and assessing the degree of success following management
- Recognise when to devise an appropriate management plan and when to refer to the Hospital Eye Service

Skills:

- Operate in a complex and unpredictable environment with an overview of the issues governing best practice
- Exercise and further develop the analytical skills required for academic study and enquiry
- Demonstrate a refinement of their analytical and problem-solving skills in a variety of theoretical and practical situations
- Synthesise conflicting information from a number of sources in order to gain knowledge and understanding
- Develop clinical problem-solving skills in the area of binocular vision

Values and attitudes:

- Show an appropriate professional attitude towards patients and colleagues
- Show an awareness of ethical practice
HOW WILL I LEARN?

It is well-established that adult learners learn best in smaller groups and with greater interaction. The module is therefore designed using a blended learning approach so that we can use the most appropriate teaching methods: the first day is delivered online using our Virtual Learning Environment (VLE) called Moodle. This allows you to study the background materials in your own time and as needed. This flexible approach also reduces time away from your practice with all of its cost implications. However, it is very important that you have significant face to face learning and so the remainder of the module is taught in didactic sessions of up to 32 students with the addition of group work and case discussions. All lecturers are experts and encourage questions and discussion during their teaching. Some will also include specific interaction sessions to encourage critical thinking and to allow you put what you have learnt into practice. Practical sessions work in groups of about 5/6 allowing you some hands-on experience and the chance to ask in-depth questions. Finally, virtual case discussions allow group discussion about specific cases.

Teaching pattern:

<table>
<thead>
<tr>
<th>Teaching component</th>
<th>Teaching type</th>
<th>Contact hours (scheduled)</th>
<th>Self-directed study hours (independent)</th>
<th>Placement hours</th>
<th>Total student learning hours</th>
</tr>
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<tbody>
<tr>
<td>8 hours of online materials</td>
<td>Online lectures and tutorials delivered via Moodle</td>
<td>8</td>
<td>22</td>
<td>0</td>
<td>30</td>
</tr>
<tr>
<td>13 hours of lectures, practical classes and workshops and demonstrations</td>
<td>Lectures, practical classes and workshops, demonstrations and discussions</td>
<td>13</td>
<td>107</td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>21</strong></td>
<td><strong>129</strong></td>
<td><strong>0</strong></td>
<td><strong>150</strong></td>
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WHAT TYPES OF ASSESSMENT AND FEEDBACK CAN I EXPECT?

Assessments

This assessment will consist of two written assessments. Questions will test your critical and evaluative understanding, clinical recognition skills, ability to differentially diagnose and application of knowledge.

The assessment will consist of:
MCQs (based on the content of the module)
Patient management case scenarios (PMCS) (which test your ability to analyse clinical results and manage patients appropriately)

Assessment pattern:

<table>
<thead>
<tr>
<th>Assessment component</th>
<th>Assessment type</th>
<th>Weighting</th>
<th>Minimum qualifying mark</th>
<th>Pass/Fail?</th>
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<tbody>
<tr>
<td>PMCS Exam</td>
<td>Written Exam</td>
<td>50%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>MCQ Exam</td>
<td>Written Exam</td>
<td>50%</td>
<td>N/A</td>
<td>N/A</td>
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Resit Provisions
If the Assessment Board for the Programme requires that a resit be conducted then you should normally resit any component where the component pass mark has not been reached, but the component mark will be capped at 50% irrespective of the original/resit component marks. The marks gained for the rest of the components will stand.

Assessment criteria

Assessment Criteria are descriptions of the skills, knowledge or attributes you need to demonstrate in order to complete an assessment successfully and Grade-Related Criteria are descriptions of the skills, knowledge or attributes you need to demonstrate to achieve a certain grade or mark in an assessment. Assessment Criteria and Grade-Related Criteria for module assessments will be made available to you prior to an assessment taking place. More information will be available from the module leader.

Feedback on assessment

Following an assessment, you will be given your marks and feedback in line with the Assessment Regulations and Policy. More information on the timing and type of feedback that will be provided for each assessment will be available from the module leader.

Assessment Regulations

The Pass mark for the module is 50% on aggregate. Any minimum qualifying marks for specific assessments are listed in the table above. The weighting of the different components can also be found above. The Programme Specification contains information on what happens if you fail an assessment component or the module.

INDICATIVE READING LIST


Notes relating to each lecture are provided on-line. Individual lecture notes also specify recommended further reading (including journal articles and research reports).

Version: 2.0
Version date: July 2014
For use from: 2014-15

Appendix: see http://www.hesa.ac.uk/content/view/1805/296/ for the full list of JACS codes and descriptions

<table>
<thead>
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<th>CODES</th>
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<tbody>
<tr>
<td><strong>HESA Code</strong></td>
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<td>4</td>
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<table>
<thead>
<tr>
<th><strong>JACS Code</strong></th>
<th><strong>Description</strong></th>
<th><strong>Percentage (%)</strong></th>
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<tbody>
<tr>
<td>B510</td>
<td>The study of the principles and techniques for examining, diagnosing and treating conditions of the human visual system</td>
<td>100</td>
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