

A multifaceted approach to numeracy support for life sciences students

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The issues

- Academic
- Professional

In place already

- Academic Tutorial Service – numeracy session
- Level 4 laboratory sessions requiring calculations
- Some numeracy support within modules

Solutions

- Interactive multimedia
- Face-to-face support

Local interactive multimedia

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Introduction

Interactive Numeracy Resource

School of Life Sciences Contents Page

Accuracy and Precision	Start	Making up a Solution	Start
Allele frequency	Start	Making up a Solution for a Standard Curve	Start
Beer Lambert	Start	Mean Corpuscular Haemoglobin	Start
Calculation of international normalised ratio (INR)	Start	Mean Corpuscular Haemoglobin Concentration	Start
Conversion of units	Start	Mean Corpuscular Volume	Start
DNA copy number	Start	Number of Parasites	Start
Equation for a Straight Line 1	Start	PCR Primer	Start
Equation for a Straight Line 2	Start	pH Calculations	Start
Gene manipulation and recombinant DNA technology	Start	Plotting a Standard Curve	Start
Graph Calculations	Start	Population Frequency	Start
Henderson-Hasselbalch equation	Start	Semi-log Graph Paper	Start
Interference Studies	Start	Standard Deviation	Start

Done

Start

Internet

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13:05

Drop-in Sessions

- Piloted October 2011
- Open to all
- Fixed running period
- Volunteer members of staff
- **Informal approach**
- Session format



Worried about mathematics?

There will be two optional drop-in sessions on:

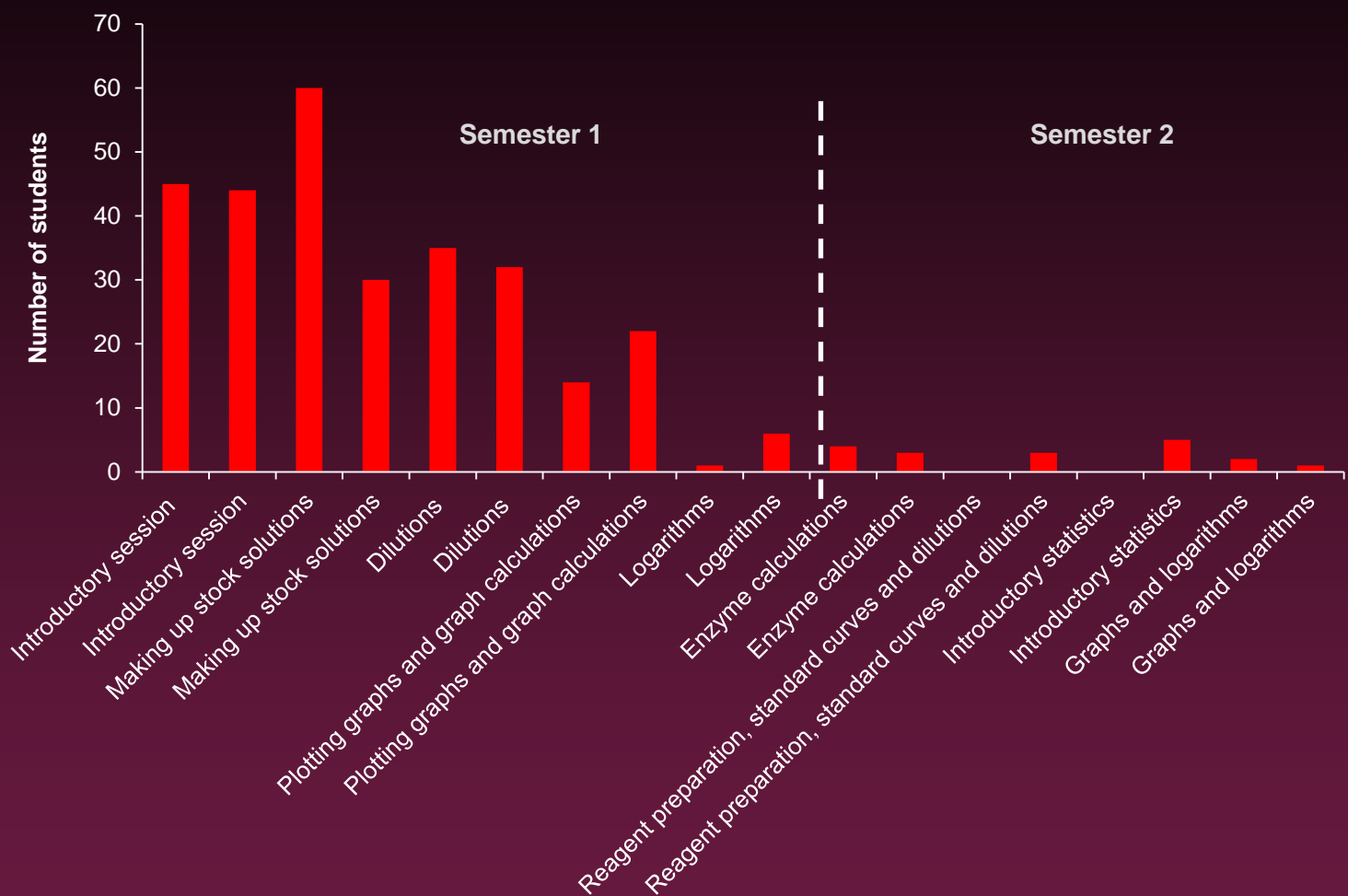
Wednesday 5th October & Wednesday 12th October

from 1pm to 2pm

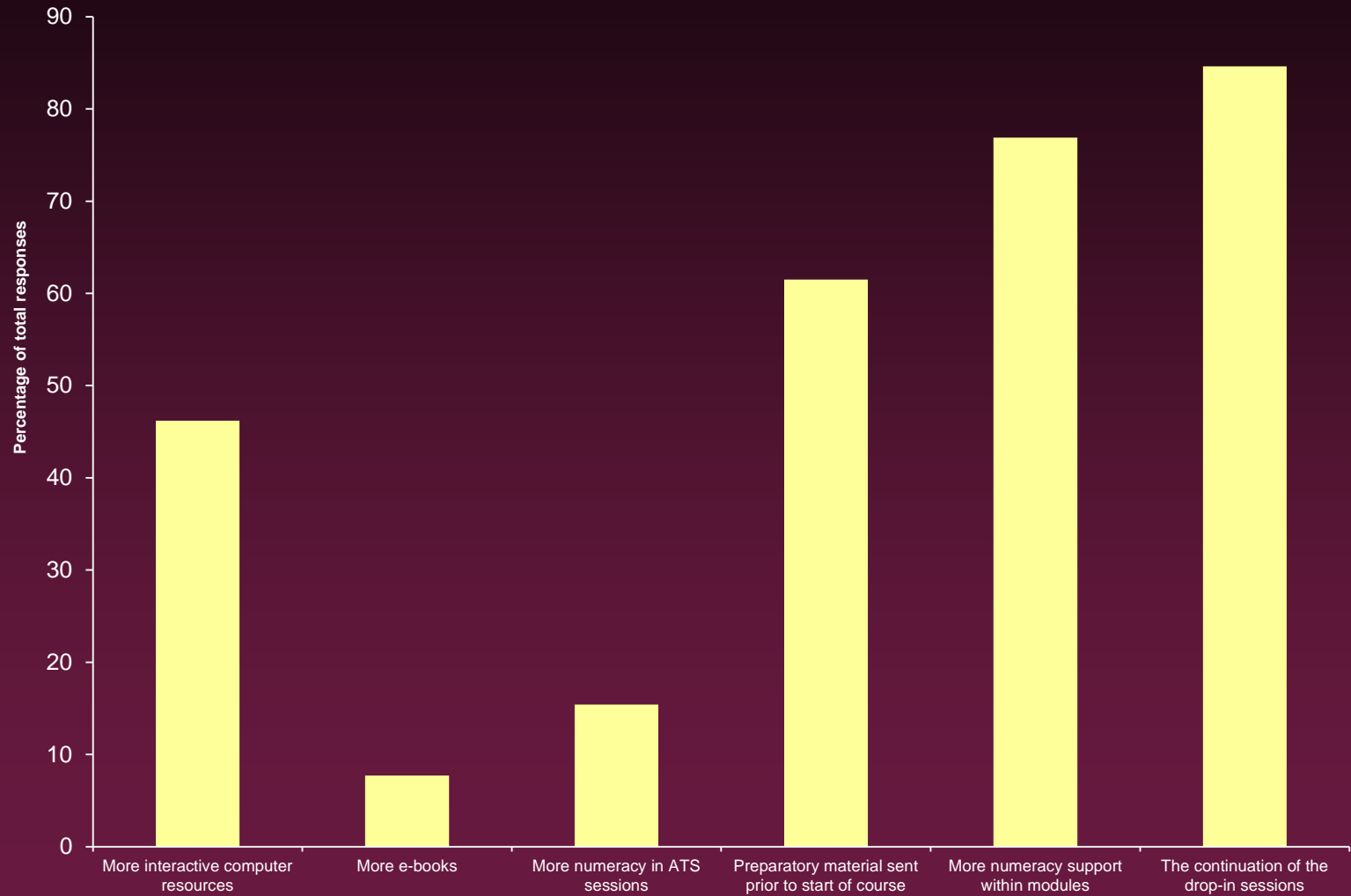
in room C2.15

Please e-mail c.ferrier@westminster.ac.uk if you wish to attend either of the sessions stating preferred date.

Repeat sessions will be made available if demand exceeds room size.



October 2011 to March 2012, drop-in session attendance and subject areas.

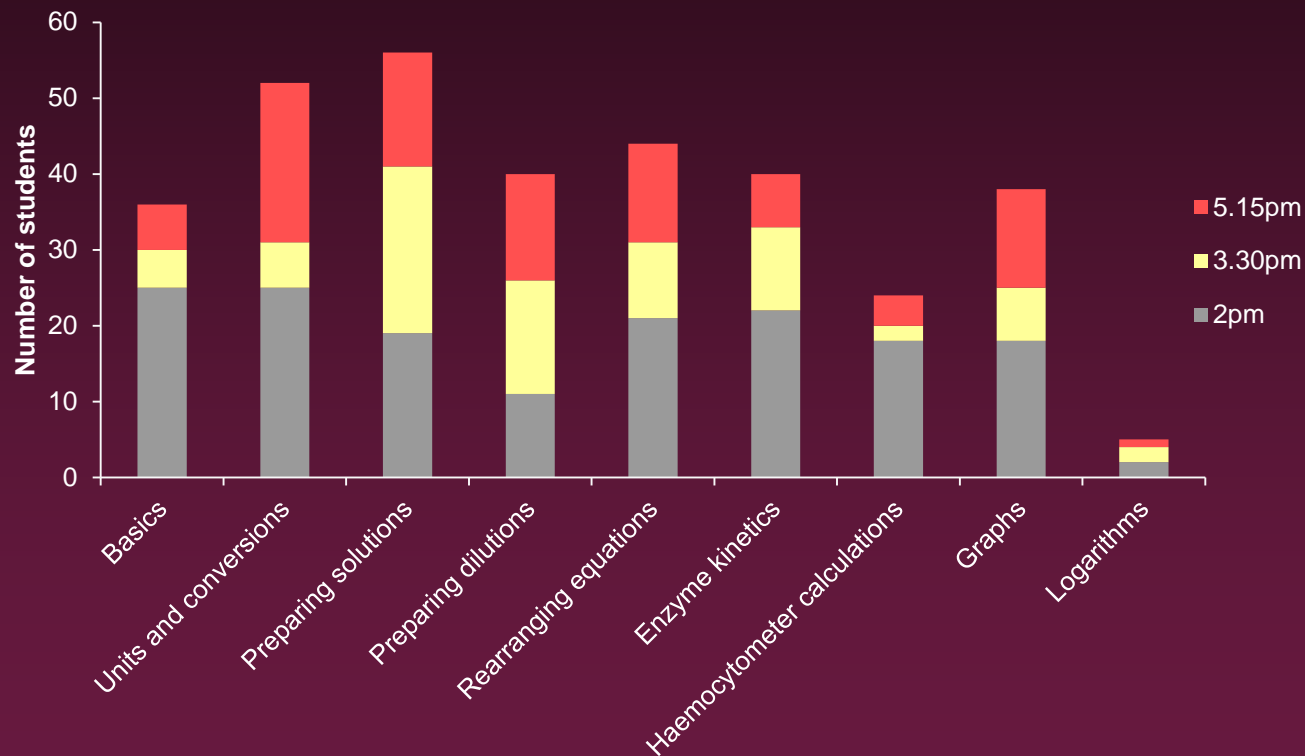


Student preferences for numeracy support in December 2011 (n=13)

Conclusions

- Continue with Drop-in sessions Semester 1 only (four members of staff , two per session)
- More resources to be made available on Blackboard
- Selected topics on a weekly basis

2012/2013



October 2012 to December 2012 drop-in session attendance and subject areas.

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https://learning.westminster.ac.uk/webapps/portal/frameset.jsp?tab_tab_group_id=_3_1&url=%2Fwebapps%2Fblackboard%2Fexecute%2Flauncher%3Ftype%3DCourse%2F

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Announcements
Module Selection 2013
Course representatives ☒
Timetables
level 4 programme Students
level 5 programme Students
level 6 programme
Tutor Groups
Other help
Numeracy resources
Effective Study Guide
Careers
School of Life Science Policies ☒
Disabilities ☒ ☐
Documents ☒
Help
Discussions
Events
Tools

Timetable for 2012 Drop-in Sessions

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Attached Files: Numeracy Support Sessions 2012.pdf (169.81 KB)

04/10/12	Basics
11/10/12	Units and conversions
18/10/12	Solutions and Dilutions 1
25/10/12	Solutions and Dilutions 2
01/11/12	Rearranging equations
08/11/12	GIS Week
15/11/12	Enzyme kinetics calculations
22/11/12	Haemocytometer calculations
29/11/12	Enzyme Kinetics/Graphs
06/12/12	pH calculations

https://learning.westminster.ac.uk/webapps/blackboard/content/listContentEditable.jsp?content_id=_304356_1&course_id=_2923_1&mode=reset#

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Coursework

ORGANISATION MANAGEMENT

Control Panel

Files

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Evaluation

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Users and Groups

Customisation

Packages and Utilities

Help

Information and activities from the drop-in sessions

Enabled: Statistics Tracking
A few notes plus an opportunity for you to practice the examples from the sessions.

Solutions, concentrations and dilutions.

Availability: Item is no longer available. It was last available on 30-Jul-2013 23:59.
Enabled: Statistics Tracking
Attached Files: Solutions.pdf (439.948 KB)

I'd appreciate your feedback on the usefulness of the attached pdf document.
Is there anything we can do to make it better or clearer??
Thanks, Stephen

Interactive Numeracy Resource

Enabled: Statistics Tracking
A resource we have produced for all our undergraduate students, you may find some of it helpful.
Here's the link again:
<http://cavpod.wmin.ac.uk/~video/school/sols/numeracyrlo1.html>

Some numeracy resources

Enabled: Statistics Tracking
Attached Files: Numeracy Support Resources.docx (13.919 KB)
Numeracy Support Resources.pdf (66.523 KB)

11:12
08/09/2013

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Users and Groups | Customisation | Packages and Utilities | Help

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Attached Files: [Preparing solutions_Worksheet.docx](#) (15.752 KB) | [Preparing solutions_Worksheet with answers.docx](#) (16.155 KB)

Session4: Preparing dilutions

Enabled: Statistics Tracking

Attached Files: [Preparing dilutions Information.docx](#) (16.853 KB) | [Preparing dilutions Information.pdf](#) (145.266 KB)

Session 4: Preparing dilutions questions

Enabled: Statistics Tracking

Attached Files: [Preparing Dilutions_Worksheet.docx](#) (12.387 KB) | [Preparing Dilutions_Worksheet with answers.docx](#) (13.119 KB)

Session 5: Rearranging Equations

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Attached Files: [Rearranging equations_Information.docx](#) (16.84 KB) | [Rearranging equations_Information.pdf](#) (62.165 KB)

Session 5: Rearranging equations questions

Enabled: Statistics Tracking

Attached Files: [Rearranging equations_Worksheet.docx](#) (24.19 KB)

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▼ Question Completion Status:

☐ 4.4×10^2

☐ 3×10^2

☐ 8.8×10^2

Question 2 1 points [Save Answer](#)

$(4 \times 10^{-8}) \times (5 \times 10^3) =$

☐ 2×10^{-4}

☐ 2×10^5

☐ 9×10^{-5}

☐ 20×10^{-5}

Question 3 1 points [Save Answer](#)

$(9 \times 10^{-3}) \times (9 \times 10^{-2}) =$

☐ 810

☐ 8.1×10^{-4}

☐ 0.81

☐ 8.1×10^4

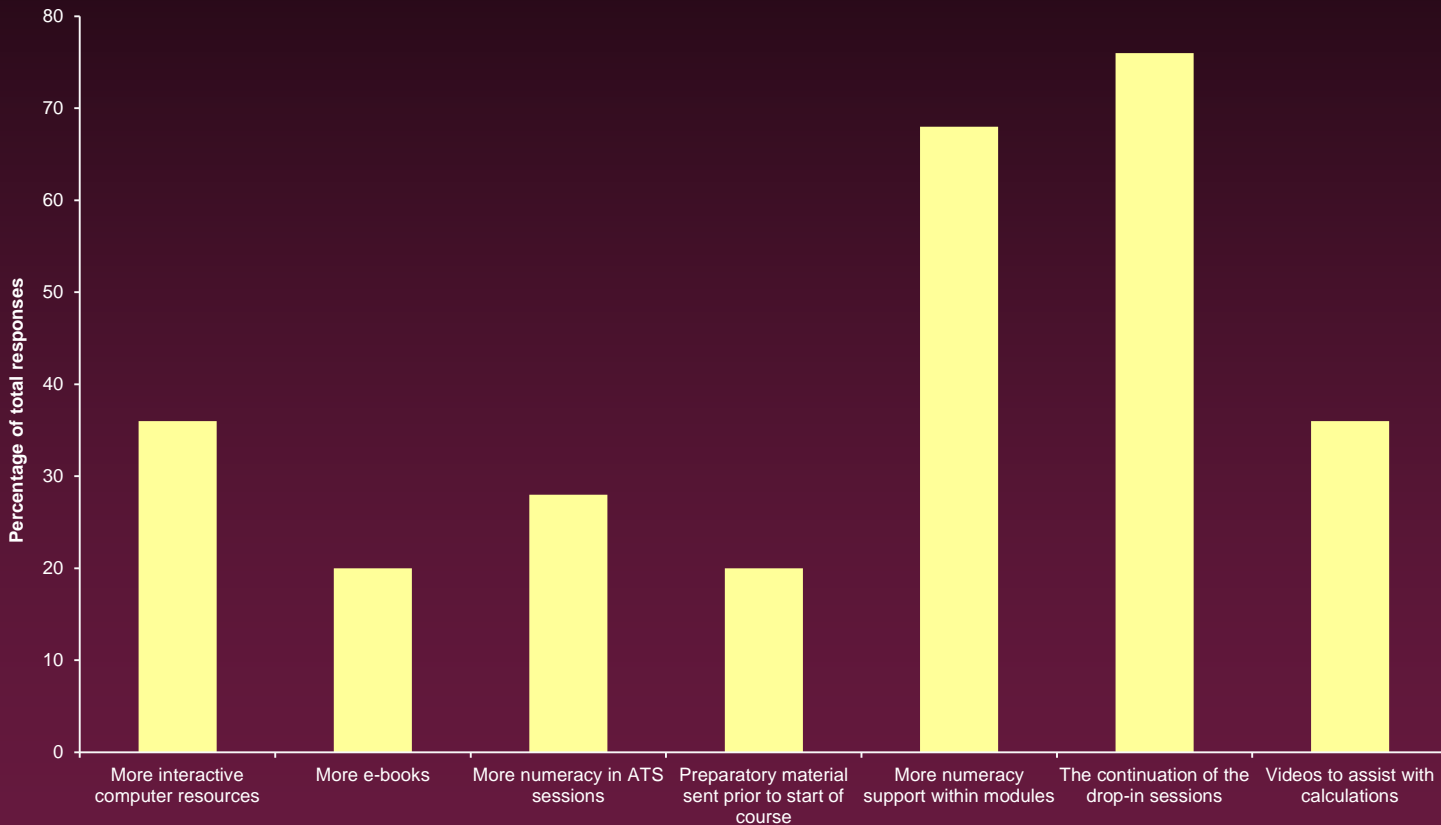
Question 4 1 points [Save Answer](#)

$(2 \times 10^7) \div (4 \times 10^3) =$

☐ 5×10^{10}

☐ 8×10^3

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Student preferences for numeracy support in December 2012 (n = 29)

A few comments..

“Thank you all for introducing the numeracy drop in sessions, it has helped me a great deal. Thanks again and I hope these sessions will be on-going.”

“I loved all of the Drop In sessions. I will definitely recommend them to everybody”

“Excellent and very worthwhile sessions.”

“Numeracy support is an absolute god send, I believe that students should be screened for numeracy skills as they are with literacy and given extra support.”

“Just a real God send the sessions have been really helpful thank you.”

“You may consider to put more material on Blackboard with included answers:)”

What now?

- October and November weekly Drop-in sessions
- Production of Camtasia videos to mirror the Drop-in sessions
- Increase provision of self-tests on Blackboard
- Investigate new software for interactive multimedia production