Further Mathematics Support Programme Wales
Suite 105, Digital Technium, Swansea University, Singleton Park, Swansea. SA2 8PP
Area Coordinator Tel: 01792 602793, Administrator Tel: 01792 606609
E-mail: adminwales@furthermaths.org.uk

NEWS RELEASE TO SCHOOLS AND COLLEGES

August 2015

Further increase in numbers taking the Further Maths A-level in Wales

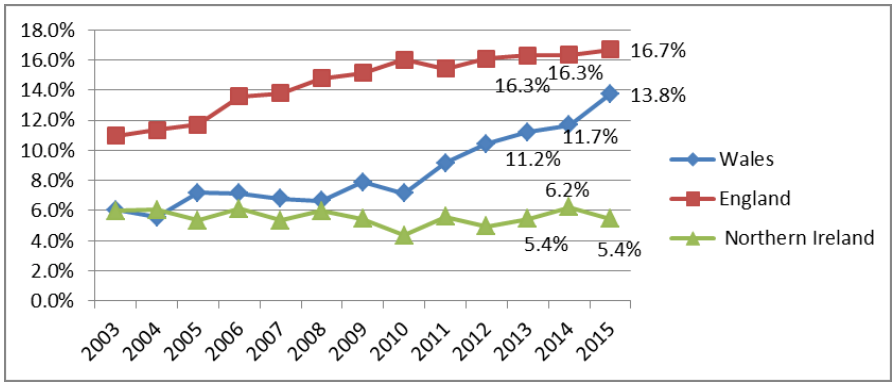
This year's Further Mathematics A-level results are again a cause for celebration in Wales and more Welsh students will go on to study a STEM degree with a Further Maths qualification.

The results have built upon last year's increased entry with further rises:

- A level Further Mathematics numbers are up from 435 to 514, an 18.2% increase.
- AS Further Mathematics numbers are up from 411 to 471, a 14.6% increase.

The proportion of Mathematics students who sat Further Mathematics A-level reached 13.8%, which is the highest result ever in Further Mathematics in Wales and the fastest annual growth so far. Since the Further Mathematics Support Programme was launched in Wales in 2010 the percentage has risen steadily every year, see the graph below.

Graph 1. Percentages of A-level Mathematics students taking A-level Further Mathematics in England, Northern Ireland and Wales since 2003 (http://www.jcq.org.uk/examination-results/a-levels)



We have also seen a clear gap develop at the top end of the qualification spectrum between Wales and the rest of the UK. Students in Wales exceed the rest of the UK in achieving A*/A grades in both Further Mathematics and Mathematics A-level. The percentages are astonishing with 45.5% of students in Wales achieving an A* grade in A-Level Further Mathematics, see the table below.

Table 1. Comparison of percentages of A-level Mathematics students achieving A* and A* - A grades in both A-level Further Mathematics and Mathematics between Wales and the UK as a whole in 2015 (http://www.jcq.org.uk/examination-results/a-levels)

Grade Achieved	Further Mathematics		Mathematics	
	Wales	UK	Wales	UK
A*	45.5%	26.5%	19.0%	17.7%
A* - A	63.8%	56.0%	43.3%	41.7%

Further Mathematics qualifications allow students to enrich their mathematics experience and build a more solid foundation for pursuing careers in science, technology, economics, actuarial science and finance. The qualification is highly regarded by the Russell Group of Universities which was highlighted in their guide to post-16 subject choices http://russellgroup.org/InformedChoices-latest.pdf

Katie Abraham, an FMSP Wales student from Bryntirion Comprehensive School said: *"I am grateful to have been given the opportunity to gain an A grade in Further Maths AS Level, without FMSP I would have been unable to study Further Maths as my school did not offer the course. I believe studying through the FMSP has helped me to get into my first choice university and allowed me to consider applying to the more competitive universities. I enjoyed experiencing online learning and found it suited me well as the resources were available when I needed them and the classes were small, moving at a pace everyone was comfortable with. I would advise any person who was thinking about doing maths at university to do Further Maths as it has helped me develop my mathematical knowledge. I'm positive that the knowledge I have gained in Further Maths will benefit me when I go on to do my Maths degree at Bristol University."*

Cai Maitland Davies from Ysgol Glan Clwyd who was awarded A*(M)A*(FM) commented:" *I enjoyed studying Further Maths because I found it a good challenge, and the tutors were able to help a lot any time I wasn't confident with an aspect of the work. I would definitely recommend studying Further Maths as it gives a much better insight into the subject than regular A level maths and would be a great help with many number based courses (e.g Engineering or Physics) at University".*

The Further Maths Support Programme (FMSP) Wales funded by the Welsh Government currently operates in 8 counties: Anglesey, Carmarthenshire, Conwy, Gwynedd, Neath Port Talbot, Pembrokeshire, Rhondda Cynon Taf and Swansea. The Programme supports state-funded schools and colleges in the established areas by providing tuition for students who would benefit from studying AS/A level Further Mathematics.

The FMSP Wales offers a variety of revision and study events held face-to-face and online for both students tutored by the FMSP Wales and studying Further Mathematics in their sixth-form. A maths teacher from a school in North Wales said: *"During the last two years, students have attended study days and revision sessions provided by the FMSP at Bangor University which have proved an excellent consolidation of knowledge*". The Programme also offers enrichment conferences and workshops to GCSE and A-level students.

In 2014/15 the first pilot CPD course "Teaching Further Pure 1 with Confidence took place in South Wales with 7 teachers successfully completed the course. Meirion Morgan commented: *"I feel a lot more confident about teaching this course in the future, and it has already aided my teaching of the course this year"* (YGG Llangynwyd).

Project Coordinator Sofya Lyakhova said: *"We are thrilled by the overall success of the Programme in the established FMSP areas and working to expand the Programme in all Wales".*

All state-funded secondary schools and colleges in Wales are invited to register with the Programme http://www.furthermaths.org.uk/Eregister.php and express their interest in tuition assistance by contacting the Programme Coordinator Sofya Lyakhova on 01792 602793.

The FMSP Wales Is managed by Rheolir FMSP Cymru gan
www.wimcs.ac.uk
in partnership with mewn partneriaeth â
Innovators in Mathematics Education
funded by ac fe'i hariannir gan
Llywodraeth Cymru Welsh Government

Notes for Editors

1. The FMSP Wales is managed by The Wales Institute of Mathematical and Computational Sciences (WIMCS) and is in partnership with Mathematics in Education and Industry (MEI, www.mei.org.uk). It is funded by the Welsh Government.

2. More information regarding the Further Maths support programme Wales can be found at: http://www.furthermaths.org.uk/wales

3. The Wales Institute of Mathematical and Computational Sciences (WIMCS) is a collaborative partnership of the universities of Aberystwyth, Bangor, Cardiff, South Wales and Swansea. It has been set up by the Welsh Government through the Higher Education Funding Council for Wales. WIMCS aims to enhance the standing of mathematics and computation in Wales, to foster links with industry, commerce and business, to generate substantial research funding and to provide a forum for education and public awareness of the Mathematical Sciences (www.wimcs.ac.uk).

4. For more information please contact the FMSP Wales Administrator on 01792 606609 or by email adminwales@furthermaths.org.uk

Rhaglen Gymorth Mathemateg Cymru
Ystafell 105, Digital Technium, Prifysgol Abertawe, Parc Singleton, Abertawe SA2 8PP
Ffôn Cydlynydd Ardal: 01792 602793, Ffôn Gweinyddydd: 01792 606609
E-bost: adminwales@furthermaths.org.uk

DATGANIAD NEWYDDION I YSGOLION A CHOLEGAU
Awst 2015

Cynnydd pellach yn y niferoedd sy'n sefyll Mathemateg Bellach lefel A yng Nghymru

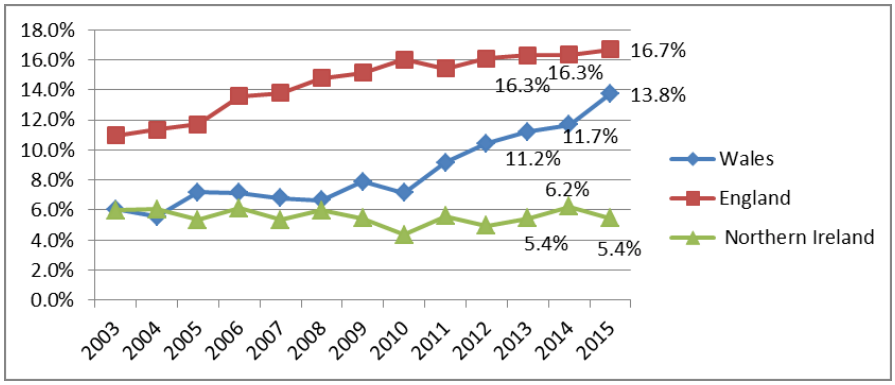
Mae canlyniadau lefel A Mathemateg Bellach eleni unwaith eto'n achos dathlu yng Nghymru a bydd mwy o fyfyrwyr o Gymru yn mynd ymlaen i astudio gradd STEM gyda chymhwyster Mathemateg Pellach.

Mae'r canlyniadau wedi adeiladu ar y cynnydd a welwyd llynedd, gan godi ymhellach:

- Mae niferoedd Mathemateg Bellach lefel A wedi codi o 435 i 514, cynnydd o 18.2%.
- Mae niferoedd Mathemateg Bellach AS wedi codi o 411 i 471, cynnydd o 14.6%.,

Cyrhaeddodd cyfran y myfyrwyr Mathemateg a safodd Mathemateg Bellach lefel A 13.8%, sef y canlyniad uchaf erioed mewn Mathemateg Bellach yng Nghymru a'r twf blynyddol cyflymaf hyd yn hyn. Ers i'r Rhaglen Gymorth Mathemateg Bellach gael ei lansio yng Nghymru yn 2010, mae'r ganran wedi codi'n gyson bob blwyddyn, fel y dengys y graff isod.
.

Graff 1. Canrannau'r myfyrwyr lefel A Mathemateg sydd wedi sefyll Mathemateg Bellach lefel A yng Nghymru, Lloegr a Gogledd Iwerddon ers 2003 (http://www.jcq.org.uk/examination-results/a-levels)



Rydym hefyd wedi gweld gwahaniaeth sylweddol wedi datblygu ar ben uchaf y sbectrwm canlyniadau rhwng Cymru a gweddill y DU. Mae myfyrwyr yng Nghymru yn arwain gweddill y DU o ran cael graddau A*/A, mewn Mathemateg Bellach a Mathemateg Lefel A. Mae'r canrannau yma yn rhyfeddol gyda 45.5% o fyfyrwyr yng Nghymru yn cael gradd A* mewn Mathemateg Bellach lefel A, gweler y tabl isod.

The FMSP Wales Is managed by Rheolir FMSP Cymru gan
www.wimcs.ac.uk
in partnership with mewn partneriaeth â
Innovators in Mathematics Education
funded by ac fe'i hariannir gan
Llywodraeth Cymru Welsh Government

Tabl 1. Cymhariaeth o'r canrannau o fyfyrwyr lefel A sydd wedi cael graddau A* a A* - A mewn Mathemateg Bellach a Mathemateg Lefel A, rhwng Cymru a'r DU cyfan yn 2015 (http://www.jcq.org.uk/examination-results/a-levels)

Gradd a chyflwanwyd	Mathemateg Bellach		Mathemateg	
	Cymru	DU	Cymru	DU
A*	45.5%	26.5%	19.0%	17.3%
A* - A	63.8%	56.0%	43.3%	42.1%

Mae cymwysterau Mathemateg Bellach yn caniatáu i fyfyrwyr gyfoethogi eu profiad mathemateg a chreu sylfaen gadarnach ar gyfer datblygu gyrfa ym meysydd gwyddoniaeth, technoleg, economeg, gwyddoniaeth actwaraidd a chyllid. Mae Grŵp Prifysgolion Russell yn gosod gwerth mawr ar y cymhwyster, fel yr amlygwyd yn eu canllaw i ddewisiadau pwnc ôl-16 http://russellgroup.org/InformedChoices-latest.pdf

Meddai Katie Abraham, myfyriwr FMSP Cymru o Ysgol Gyfun Bryntirion: "Rwy'n ddiolchgar o fod wedi cael y cyfle i ennill gradd A mewn Mathemateg Bellach Safon UG, heb FMSP ni fuaswn wedi gallu astudio Mathemateg Bellach gan nad oedd fy ysgol yn cynnig y cwrs. Rwy'n credu bod astudio drwy FMSP wedi fy helpu i fynd i mewn i fy mhrifysgol dewis cyntaf ac wedi caniatáu i mi i ystyried gwneud cais i'r prifysgolion mwy cystadleuol. Fe wnes i fwynhau profi dysgu ar-lein ac roedd yn addas iawn mi gan bod yr adnoddau ar gael pan oeddwn eu hangen a'r dosbarthiadau yn fach, yn symud ar gyflymder roedd pawb yn gyfforddus ag ef. Byddwn yn cynghori unrhyw berson sy'n ystyried gwneud mathemateg yn y brifysgol i wneud Mathemateg Bellach gan ei fod wedi fy helpu i ddatblygu fy ngwybodaeth fathemategol. Rwy'n sicr bydd y wybodaeth a ddysgais mewn Mathemateg Bellach o fudd i mi pan fyddaf yn mynd ymlaen i wneud fy ngradd Mathemateg ym Mhrifysgol Bryste".

Dywedodd Cai Maitland Davies o Ysgol Glan Clwyd a gafodd A (M) A* (FM): "Rwy'n mwynhau astudio Mathemateg Bellach gan ei fod yn heriol, ac roedd y tiwtoriaid yn gallu helpu llawer unrhyw amser nad oeddwn yn hyderus gyda agwedd o'r gwaith. Byddwn yn bendant yn argymell astudio Mathemateg Bellach gan ei fod yn rhoi cipolwg llawer gwell i mewn i'r pwnc na mathemateg Safon Uwch a byddai'n help mawr gyda llawer o gyrsiau sy'n seiliedig ar rif (ee Peirianneg neu Ffiseg) yn y Brifysgol".*

Mae'r Rhaglen Gymorth Mathemateg Bellach (FMSP) Cymru a ariennir gan Lywodraeth Cymru ar hyn o bryd yn gweithredu mewn 8 sir: Ynys Môn, Sir Gaerfyrddin, Conwy, Gwynedd, Castell-nedd Port Talbot, Sir Benfro, Rhondda Cynon Taf ac Abertawe. Mae'r Rhaglen yn cefnogi ysgolion a cholegau a ariannir gan y wladwriaeth yn yr ardaloedd sefydledig trwy ddarparu tiwtora i fyfyrwyr a fyddai'n elwa o astudio Mathemateg Bellach lefel AS/A.

Mae'r rhaglen yn cynnig amrywiaeth o ddigwyddiadau adolygu ac astudio a gynhelir wyneb yn wyneb ac ar-lein ar gyfer myfyrwyr sy'n cael eu tiwtora gan FMSP Cymru a rhai sy'n astudio Mathemateg Bellach yn eu chweched dosbarth. Dywedodd athro mathemateg o ysgol yng Ngogledd Cymru: *"Yn ystod y ddwy flynedd ddiwethaf, mae myfyrwyr wedi mynychu diwrnodau astudio a sesiynau adolygu a ddarperir gan FMSP ym Mhrifysgol Bangor sydd wedi atgyfnerthu eu gwybodaeth yn ardderchog".* Mae'r Rhaglen hefyd yn cynnig cynadleddau cyfoethogi a gweithdai i fyfyrwyr TGAU a Safon Uwch.

Yn 2014/15 cynhalwyd y cwrs peilot DPP cyntaf "Addysgu Pur Bellach 1 yn Hyderus" yn Ne Cymru gyda 7 o athrawon yn cwblhau'r cwrs yn llwyddiannus. Dywedodd Meirion Morgan: *"Rwy'n teimlo'n llawer mwy hyderus am ddysgu y cwrs hwn yn y dyfodol, ac mae eisoes wedi cynorthwyo fy addysgu yn y cwrs eleni"* (YGG Llangynwyd).

Meddai Sofya Lyakhova, Cydlynydd y Prosiect: *"Rydym wrth ein bodd gyda llwyddiant cyffredinol y Rhaglen yn ardaloedd sefydledig yr FMSP ac yn gweithio i ehangu'r Rhaglen yng Nghymru gyfan*"

Gwahoddir yr holl ysgolion uwchradd a cholegau a ariannir gan y wladwriaeth yng Nghymru i gofrestru gyda'r Rhaglen http://www.furthermaths.org.uk/Eregister.php a mynegi eu diddordeb mewn cymorth tiwtora trwy gysylltu â chydlynydd y Rhaglen, Sofya Lyakhova, ar 01792 602793.

Nodiadau i Olygyddion

1. Rheolir FMSP Cymru gan Sefydliad Gwyddorau Mathemategol a Chyfrifiadurol Cymru (WIMCS), mewn partneriaeth â Mathemateg mewn Addysg a Diwydiant (MEI, www.mei.org.uk). Caiff ei hariannu gan Lywodraeth Cymru.

2. Mae rhagor o wybodaeth ynghylch rhaglen gymorth Mathemateg Bellach Cymru ar gael yn: http://www.furthermaths.org.uk/wales

3. Partneriaeth gydweithredol yw Sefydliad Gwyddorau Mathemategol a Chyfrifiadurol Cymru (WIMCS) rhwng prifysgolion Aberystwyth, Bangor, Caerdydd, De Cymru ac Abertawe. Fe'i sefydlwyd gan Lywodraeth Cymru trwy Gyngor Cyllido Addysg Uwch Cymru. Nod WIMCS yw gwella statws mathemateg a chyfrifiadura yng Nghymru, meithrin cysylltiadau â diwydiant, masnach a busnes, cynhyrchu cyllid ymchwil sylweddol a darparu fforwm ar gyfer addysg ac ymwybyddiaeth gyhoeddus o'r Gwyddorau Mathemategol (www.wimcs.ac.uk).

4. I gael rhagor o wybodaeth, cysylltwch â Gweinyddydd FMSP Cymru drwy ffonio 01792 606609 neu e-bostio adminwales@furthermaths.org.uk