

# Explanatory Note: Calculation of Module Marks and Year/ Programme Overall Weighted Averages

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## 1 Calculating module results

### 1.1 Terminology and definitions

#### 1.1.1 Assessment components

Each module must contain one or more assessment components, each which represent an individual standalone item of assessment completed by the student. Each assessment component is classified as either:

- *numerically graded*, with an assessment component mark recorded as a real number to 2 decimal places between 0.00 and 100.00. Additionally, for numerically graded assessment components, an assessment component pass mark must be defined and recorded as a real number to 2 decimal places between 0.01 and 100.00
- *pass/fail*, with a Pass or Fail outcome recorded. A numerically based mark scheme may be used to determine the pass threshold for a pass/fail assessment component, but the assessment component outcome will only be recorded as Pass or Fail

In addition, every assessment component will carry a Yes or No designation as to whether it is a “must pass” assessment component.

### 1.1.2 Modules

Each module must contain one or more assessment components and is graded either:

- *numerically*, with an overall module mark recorded as a real number to 2 decimal places between 0.00 and 100.00. The module pass mark is defined within the Regulations for Taught Programmes of Study and depends on the FHEQ level of the module:
  - 40.00 for FHEQ Level 4, 5 or 6
  - 50.00 for FHEQ Level 7
- *pass/fail*.

A numerically graded module may contain pass/fail assessment components but must include at least one numerically graded assessment component. All numerically graded modules must include weightings of the numerically graded assessment components.

A pass/fail graded module may contain numerically graded assessment components (each with a given pass mark). A pass/fail graded module must contain at least one assessment component designated as “must pass”.

All modules have a volume of credits associated to them - the number of ECTS. The permissible values are defined in Table 4 of the Regulations for Taught Programmes of Study and are expressed as a real number to 2 decimal places. The default permissible values are: 5.00, 7.50, 10.00, 15.00, 20.00, 25.00, 30.00, 35.00, 40.00, 45.00, 50.00 and 60.00.

## 1.2 Calculation of module result for numerically graded modules

### 1.2.1 General method

For numerically graded modules the overall module mark is calculated using the following information:

- Number of assessment components which are numerically graded for the module expressed as an integer:  $c$ , which must be at least 1.
- Assessment component marks for numerically graded assessments for the module expressed as a real number to 2 decimal places:  $\alpha_1, \dots, \alpha_c$ . Permissible range of values is 0.00 to 100.00.
- Assessment component weightings for numerically graded assessments for the module expressed as a real number to 2 decimal places:  $\lambda_1, \dots, \lambda_c$ . Permissible range of values is 0.01 to 100.00.

Importantly, the assessment component weightings for a given module must sum to 100.00, or

$$\sum_{k=1}^c \lambda_k = 100.00 \quad (1)$$

Assuming none of the assessment components are designated as “must pass” then the overall module mark ( $m$ ) expressed as a real number to 2 decimal places (with a permissible range of 0.00 to 100.00) for such modules is the weighted arithmetical mean, calculated as:

$$m = \sum_{k=1}^c \frac{\lambda_k \alpha_k}{100.00} \quad (2)$$

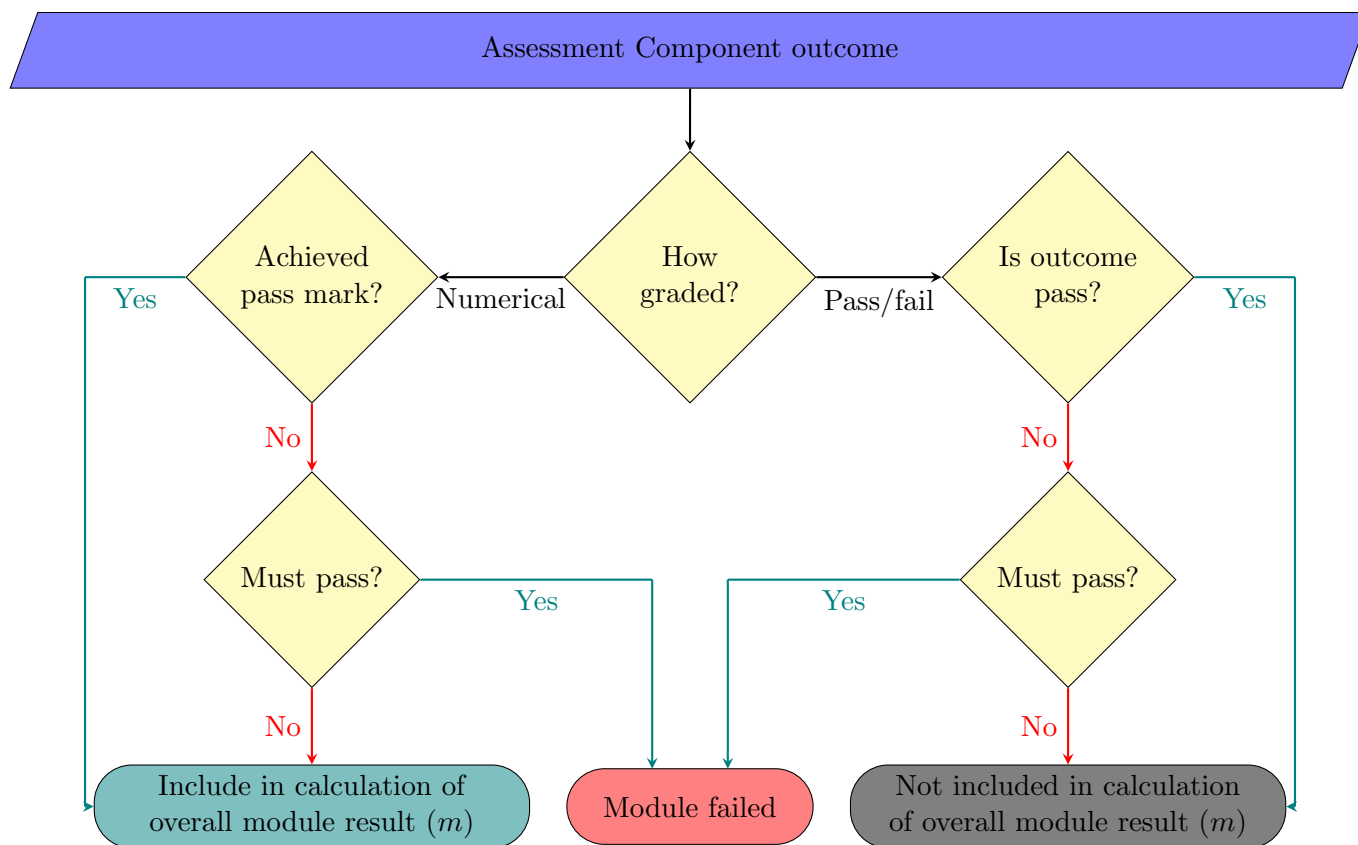
The overall module mark ( $m$ ) is calculated to full precision and then rounded to 2 decimal places.

### 1.2.2 Pass/fail and must pass assessment components

Amendments to the calculation of the overall module mark ( $m$ ) may be necessary if the module contains pass/fail assessment component(s) or any of the assessment components are designated as Yes for “must pass”:

- If the module contains a pass/fail assessment component which is designated as No for “must pass” then no change in the calculation of the overall module mark ( $m$ ) is required even if the student fails the assessment component.
- If the module contains a pass/fail assessment component which is designated as Yes for “must pass” then if the student fails the assessment component the module is failed.
- If the module contains a numerical assessment component which is designated as Yes for “must pass” then if the student does not achieve the given pass mark for the assessment component the module is failed and the overall module mark ( $m$ ) is set to 0.00.
- If the module contains a numerical assessment component which is designated as No for “must pass” then if the student does not achieve the given pass mark for the assessment component there is no change in the contribution of the assessment component result to the calculation of the overall module mark ( $m$ ).

The following flow chart summarises the process for a given assessment component outcome:



### 1.2.3 Examples

The assessment components for a numerically graded module at FHEQ Level 5 (module pass mark 40.00) are:

Assessment Component	Type	Pass Mark	Must Pass	Weighting
Problem Sheet 1	Numeric	40.00	Yes	10.00
Problem Sheet 2	Numeric	40.00	Yes	10.00
Problem Sheet 3	Numeric	40.00	No	10.00
Exam	Numeric	40.00	No	70.00
Project construction	Pass/Fail	n/a	Yes	n/a
Presentation	Pass/Fail	n/a	No	n/a

The assessment component and overall module result for four students studying this module are:

Assessment Component	Student A	Student B	Student C	Student D
Problem Sheet 1 (Must Pass)	30.00 (Fail)	60.00	65.00	72.50
Problem Sheet 2 (Must Pass)	70.00	60.00	65.00	65.00
Problem Sheet 3	65.00	20.00 (Fail)	70.00	75.00
Exam	50.00	35.00 (Fail)	70.00	64.00
Project construction (Must Pass)	Pass	Pass	Fail	Pass
Presentation	Pass	Fail	Pass	Fail
Module outcome	Fail	Fail	Fail	Pass
Overall module result ( $m$ )	0.00	38.50	0.00	66.05

- Student A achieves 30.00 for problem sheet 1 for which the pass mark is 40.00. As this assessment component is designated as Yes for “must pass” and despite passing the other assessment components this student fails the module because of this.
- Student B achieves the pass threshold in the three assessment components designated as Yes for “must pass”. However, when the overall module mark ( $m$ ) is calculated this is 38.50, so below the pass mark for the module which is 40.00, so the student fails the module because of this. The overall module mark ( $m$ ) is calculated as:

$$\begin{aligned}
 m &= \frac{(60.00 \times 10.00) + (60.00 \times 10.00) + (20.00 \times 10.00) + (35.00 \times 70.00)}{100.00} \\
 &= \frac{600.00 \dots + 600.00 \dots + 200.00 \dots + 2450.00 \dots}{100.00} \\
 &= \frac{3850.00 \dots}{100.00} \\
 &= 38.50 \dots \\
 &= 38.50 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

- Student C achieves the pass threshold in all but the project construction assessment component. As this assessment component is designated as Yes for “must pass” this student fails the module because of this.
- Student D achieves the pass threshold in all but the presentation assessment component. As this assessment component is designated as No for “must pass” this student can still pass the module without a pass in this component if they overall module mark ( $m$ ) is at least 40.00. The overall module mark ( $m$ ) is calculated as:

$$\begin{aligned}
 m &= \frac{(72.50 \times 10.00) + (65.00 \times 10.00) + (75.00 \times 10.00) + (64.00 \times 70.00)}{100.00} \\
 &= \frac{725.00 \dots + 650.00 \dots + 750.00 \dots + 4480.00 \dots}{100.00} \\
 &= \frac{6605.00 \dots}{100.00} \\
 &= 66.05 \dots \\
 &= 66.05 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

#### 1.2.4 Capping and other amendments

In certain circumstances (eg. referral, outcome of academic misconduct) capping is applied to either the assessment component mark ( $\alpha$ ) or overall module mark ( $m$ ). In these cases a substitution is made in either the

calculation or overall result of formula 2.

Compensation is a mechanism by which a module can be passed and credit can be awarded by the Board of Examiners where the student has achieved a marginal failure. Only compulsory or elective modules can be compensated, and there are limits on the number of modules which can be compensated. Further details are provided in the Regulations for Taught Programmes of Study in paragraphs 10.8 to 10.16. When a module is compensated the overall module mark ( $m$ ) as determined by formula 2 is used without any amendment to calculate the overall year/programme weighted average, despite it being less than the given module pass mark.

For Referred modules the overall module mark is calculated using the new assessment component mark(s) for the initially failed components to determine whether the module has been passed, but the overall module mark ( $m$ ) is then set to the pass mark. The exception is in cases of accepted Mitigating Circumstances where it has been determined that the module is uncapped, so the overall module mark ( $m$ ) remains as calculated with the new assessment component mark(s) for the failed components.

A summary of where substitutions are made in formula 2 and the resulting numerical values of the overall module mark ( $m$ ) are:

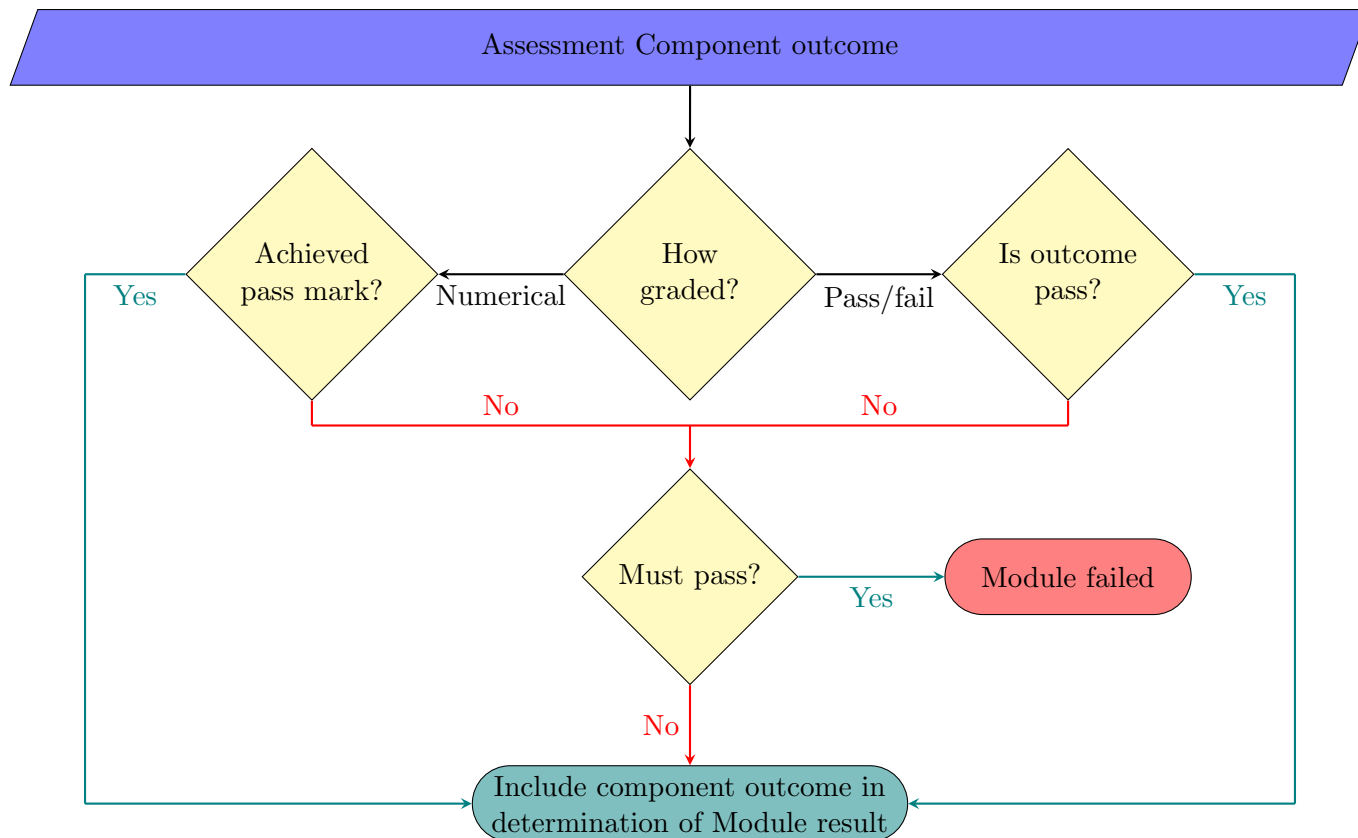
Module outcome	Substitution	Overall module mark range	
		FHEQ Level 4/5/6	FHEQ Level 7
Pass	n/a	40.00 to 100.00	50.00 to 100.00
Compensated	n/a	30.00 to 39.99	40.00 to 49.99
Referred	Module mark	40.00	50.00
Referred (uncapped due to Mitigating Circumstances)	n/a	40.00 to 100.00	50.00 to 100.00
Deferred	n/a	40.00 to 100.00	50.00 to 100.00
Pass - Academic Misconduct Penalty D	Assessment mark (capped)	40.00 to 100.00	50.00 to 100.00
Pass - Academic Misconduct Penalty E	Module mark	40.00	50.00
Pass - Academic Misconduct Penalty F	Module mark	0.00	0.00
Repeated modules - Academic Misconduct Penalty G	Module mark	40.00	50.00

### 1.3 Calculation of module result for pass/fail graded modules

#### 1.3.1 General method

For pass/fail graded modules the overall outcome is calculated using just the Pass or Fail outcome of the assessment component(s). At least one assessment component must be designated as Yes for “must pass”. No weighting of assessment components is used for determining the outcome of pass/fail modules.

The following flow chart summarises the steps to determine the overall module outcome:



### 1.3.2 Examples

The assessment components for a FHEQ Level 7 pass/fail graded module are:

Assessment Component	Type	Pass Mark	Must Pass
Assignment 1	Numeric	50.00	No
Assignment 2	Pass/fail	n/a	No
Class test	Numeric	50.00	Yes
Navigation exercise	Pass/Fail	n/a	Yes

The assessment component and overall module outcome for four students studying this module are:

Assessment Component	Student A	Student B	Student C	Student D
Assignment 1	45.00 (Fail)	75.00 (Pass)	80.00 (Pass)	78.00 (Pass)
Assignment 2	Pass	Pass	Pass	Fail
Class test (Must Pass)	65.00 (Pass)	40.00 (Fail)	70.00 (Pass)	50.00 (Pass)
Navigation exercise (Must Pass)	Pass	Pass	Fail	Pass
Module outcome	Pass	Fail	Fail	Pass

- Student A achieves 45.00 for assignment 1 for which the pass mark is 50.00 so does not reach the pass threshold, but passes all other assessment components. As this assessment component is designated as No for “must pass” the student passes the module.
- Student B achieves 40.00 for the class test for which the pass mark is 50.00 so does not reach the pass threshold, but passes all other assessment components. As this assessment component is designated as Yes for “must pass” the student fails the module.
- Student C achieves the pass threshold in all but the navigation exercise assessment component. As this assessment component is designated as Yes for “must pass” this student fails the module because of this.
- Student D achieves the pass threshold in all but assignment 2. As this assessment component is designated as No for “must pass” this student still passes the module.

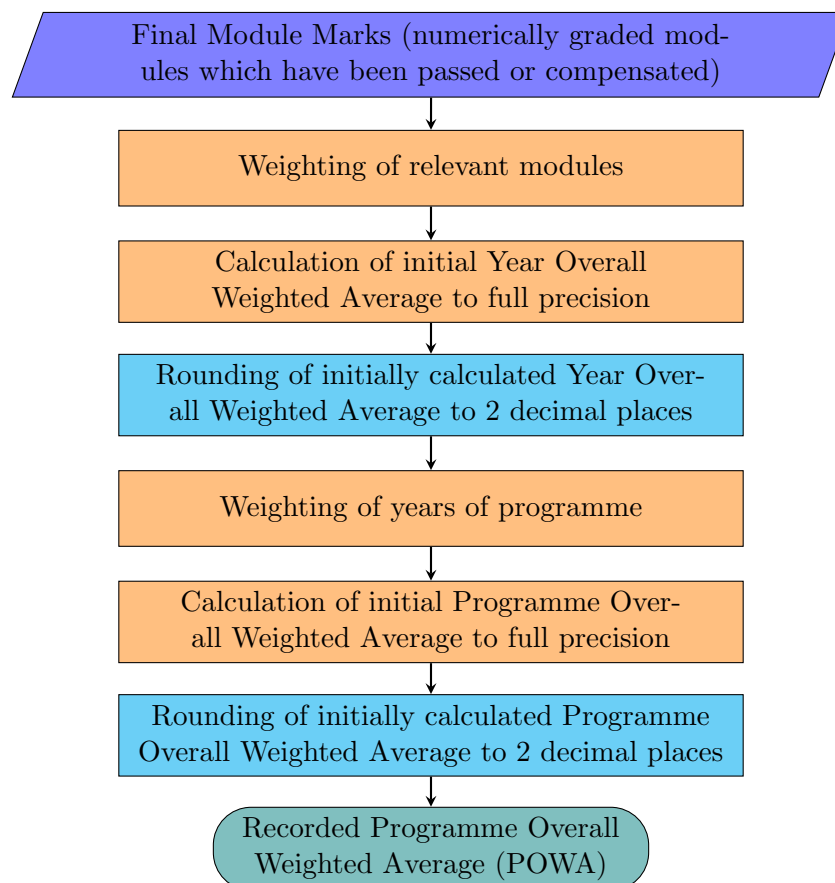
## 2 Undergraduate programmes

The calculation of year and programme overall weighted averages assumes, (when being used for determining a degree classification), as an input the calculations, that all relevant modules have been passed or compensated. Only numerically graded modules are included in the calculation of the year or programme overall weighted average. A year weighted average calculation which includes modules which have not been passed is required to determine eligibility for a module to be compensated, see paragraph 10.13 in the Regulations for Taught Programmes of Study.)

### 2.1 Process summary

The Year Overall Weighted Average (YOWA) is the weighted arithmetical mean of the final marks of all numerically graded modules (which have met the pass or compensated pass threshold). The weight for a given module is the fraction of the credit volume of the module with respect to the total credits of numerically graded modules for the year of study (except iExplore modules). iExplore modules (which are numerically graded) are not used within the calculation of the Year Overall Weighted Average.

The Programme Overall Weighted Average (POWA) is the weighted arithmetical mean of the Year Overall Weighted Averages. The weight for a given Year Overall Weighted Average is defined in Table 8 of the Regulations for Taught Programmes of Study (or within previous sets of regulations for such programmes).



### 2.2 Year Overall Weighted Average (YOWA)

#### 2.2.1 Definition

The Year Overall Weighted Average (YOWA) is calculated using the following information:

- number of numerically graded modules within a given year of study which are used in calculation of the year overall weighted average (an integer of at least 1):  $n$ . (Typically the only numerically graded module not included is an iExplore one).

- module marks for the given numerically graded modules expressed as a real number to 2 decimal places:  $m_1, \dots, m_n$ . Permissible range of values is 0.00 to 100.00
- credit volumes (ECTS) for the given numerically graded modules expressed as a real number to 2 decimal places:  $c_1, \dots, c_n$ . Permissible range of values is given in section 1.1.2.

The Year Overall Weighted Average ( $\psi$ ) is calculated as:

$$\psi = \left( \frac{1}{\sum_{i=1}^n c_i} \right) \sum_{i=1}^n m_i c_i \quad (3)$$

The Year Overall Weighted Average ( $\psi$ ) is calculated to full precision and then rounded to 2 decimal places.

### 2.2.2 Example 1

A student's module results for the year are:

Module	Grading Mode	Credits (ECTS)	Final Mark
Maths	Numeric	10.00	72.50
Biology	Numeric	5.00	64.00
Physics	Numeric	5.00	78.00
Chemistry	Numeric	5.00	55.00
Mapping	Numeric	5.00	42.50
Programming	Pass/Fail	10.00	Pass
Group Design Project	Numeric	15.00	61.00
French (iExplore)	Numeric	7.50	82.00

The Year Overall Weighted Average ( $\psi$ ) for this student is calculated using all the above module outcomes apart from Programming (as the module is pass/fail) and French (as the module is iExplore and therefore not used in the calculation even though it is numerically graded), both shown in red. The details of the calculation are:

$$\begin{aligned} \psi &= \left( \frac{1}{10.00 + 5.00 + 5.00 + 5.00 + 5.00 + 15.00} \right) \left( \begin{aligned} &(10.00 \times 72.50) + (5.00 \times 64.00) + \\ &(5.00 \times 78.00) + (5.00 \times 55.00) + \\ &(5.00 \times 42.50) + (15.00 \times 61.00) \end{aligned} \right) \\ &= \left( \frac{1}{45.00} \right) (725.00 \dots + 320.00 \dots + 390.00 \dots + 275.00 \dots + 212.50 \dots + 915.00 \dots) \\ &= \left( \frac{1}{45.00} \right) (2837.50 \dots) \\ &= 63.055555 \dots \\ &= 63.06 \text{ (rounded to 2 decimal places)} \end{aligned}$$

### 2.2.3 Example 2

A student's module results for the year are:

Module	Grading Mode	Credits (ECTS)	Final Mark
Maths Methods	Numeric	15.00	62.50
Stratigraphy	Numeric	5.00	44.00
Life over deep time	Numeric	5.00	58.00
Deforming the Earth	Numeric	7.50	78.00
Volcanism	Numeric	5.00	65.00
Programming	Numeric	10.00	55.00
Fieldwork	Numeric	15.00	42.50



The Year Overall Weighted Average ( $\psi$ ) for this student is calculated using all the above module outcomes. The details of the calculation are:

$$\begin{aligned}\psi &= \left( \frac{1}{15.00 + 5.00 + 5.00 + 7.50 + 5.00 + 10.00 + 15.00} \right) \begin{pmatrix} (15.00 \times 62.50) + (5.00 \times 44.00) + \\ (5.00 \times 58.00) + (7.50 \times 78.00) + \\ (5.00 \times 65.00) + (10.00 \times 55.00) + \\ (15.00 \times 42.50) \end{pmatrix} \\ &= \left( \frac{1}{62.50} \right) (937.50 \dots + 220.00 \dots + 290.00 \dots + 585.00 \dots + 325.00 \dots + 550.00 \dots + 637.50 \dots) \\ &= \left( \frac{1}{62.50} \right) (3545.00 \dots) \\ &= 56.720000 \dots \\ &= 56.72 \text{ (rounded to 2 decimal places)}\end{aligned}$$

## 2.3 Programme Overall Weighted Average (POWA)

### 2.3.1 Definition

The Programme Overall Weighted Average (POWA) is calculated using the following information:

- the weighting of each year of study given as a percentage in Table 8 of the Regulations for Taught Programmes of Study expressed as a real number to 2 decimal places
- the Year Overall Weighted Average for each year of study expressed as a real number to 2 decimal places:  $\psi_1, \psi_2, \psi_3$  and (for MEng/MSci programmes)  $\psi_4$ , as defined by formula 3. Permissible range of values is 0.00 to 100.00

The Programme Overall Weighted Average ( $p$ ), for **BEng/BSc students** is therefore calculated as:

$$p = \frac{7.50\psi_1 + 35.00\psi_2 + 57.50\psi_3}{100.00} \quad (4)$$

The Programme Overall Weighted Average ( $p$ ), for **MEng/MSci students** is calculated as:

$$p = \frac{7.50\psi_1 + 20.00\psi_2 + 36.25\psi_3 + 36.25\psi_4}{100.00} \quad (5)$$

Note some undergraduate programmes have different year weightings, outlined in Table 8 of the Regulations for Taught Programmes of Study.

### 2.3.2 Example 1 - BEng/BSc

A student studying a three year Bachelor's programme has the following year results:

Year of Study	Year Weighting	Year Mark ( $\psi$ )
1	7.50	77.27
2	35.00	69.94
3	57.50	63.06

The Programme Overall Weighted Average ( $p$ ) for this student is calculated as:

$$\begin{aligned}
 p &= \frac{(7.50 \times 77.27) + (35.00 \times 69.94) + (57.50 \times 63.06)}{100.00} \\
 &= \frac{579.5250\dots + 2447.90\dots + 3625.950\dots}{100.00} \\
 &= \frac{6653.3750\dots}{100.00} \\
 &= 66.533750\dots \\
 &= 66.53 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

### 2.3.3 Example 2 - MEng/MSci

A student studying a four year Integrated Master's programme has the following results:

Year of Study	Year Weighting	Year Mark ( $\psi$ )
1	7.50	57.25
2	20.00	72.58
3	36.25	63.06
4	36.25	68.54

The Programme Overall Weighted Average ( $p$ ) for this student is calculated as:

$$\begin{aligned}
 p &= \frac{(7.50 \times 57.25) + (20.00 \times 72.58) + (36.25 \times 63.06) + (36.25 \times 68.54)}{100.00} \\
 &= \frac{429.3750\dots + 1451.60\dots + 2285.9250\dots + 2484.5750\dots}{100.00} \\
 &= \frac{6651.4750\dots}{100.00} \\
 &= 66.514750\dots \\
 &= 66.51 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

## 3 Taught postgraduates

### 3.1 Process summary

The Regulations for Taught Programmes of Study require (in paragraphs 13.12 and 13.14) that taught postgraduate programmes select at the point of programme approval, or through subsequent major modification of the programme, one of three approved algorithms in order to classify their awards:

- **13.14 (i):** Programme Overall Weighted Average (POWA) meets the threshold for the relevant classification band,
- **13.14 (ii):** Programme Overall Weighted Average (POWA) and the designated dissertation or final major project module meets the threshold for the relevant classification band,
- **13.14 (iii):** The weighted arithmetical mean of the designated 'taught' and 'research' aspects of the programme each meets the threshold for the relevant classification band.

The Programme Overall Weighted Average (POWA) is the weighted arithmetical mean of the final marks of all numerically graded modules (which have met the pass or compensated pass threshold). The weight for a given module is the fraction of the credit volume of the module with respect to the total credits of numerically graded modules for the programme.

The ‘taught’ and ‘research’ aspects of the programme are the weighted arithmetical mean of the final marks of the numerically graded modules (which have met the pass or compensated pass threshold) that are designated as part of the relevant aspect. In the same way as calculating a POWA, the weight for a given module is the fraction of the credit volume of the module with respect to the total credits of the numerically graded modules for that aspect of the programme.

## 3.2 Definitions

### 3.2.1 Programme Overall Weighted Average

The Programme Overall Weighted Average (POWA) is calculated using the following information:

- number of numerically graded modules within the given programme (an integer of at least 1):  $n$ .
- module marks for the given numerically graded modules expressed as a real number to 2 decimal places:  $m_1, \dots, m_n$ . Permissible range of values is 0.00 to 100.00
- credit volumes (ECTS) for the given numerically graded modules expressed as a real number to 2 decimal places:  $c_1, \dots, c_n$ .

The Programme Overall Weighted Average ( $p$ ) is calculated as:

$$p = \left( \frac{1}{\sum_{i=1}^n c_i} \right) \sum_{i=1}^n m_i c_i \quad (6)$$

The Programme Overall Weighted Average ( $p$ ) is calculated to full precision and then rounded to 2 decimal places.

### 3.2.2 Designated taught aspect

The weighted arithmetical mean for the taught aspect is calculated using the following information:

- number of numerically graded modules within the given programme which are designated as ‘taught’ (an integer of at least 1):  $n_t$ .
- module marks for the given numerically graded modules expressed as a real number to 2 decimal places:  $m_1, \dots, m_{n_t}$ . Permissible range of values is 0.00 to 100.00
- credit volumes (ECTS) for the given numerically graded modules expressed as a real number to 2 decimal places:  $c_1, \dots, c_{n_t}$ .

The weighted arithmetical mean for the taught aspect is calculated ( $a_t$ ) is calculated as:

$$a_t = \left( \frac{1}{\sum_{i=1}^{n_t} c_i} \right) \sum_{i=1}^{n_t} m_i c_i \quad (7)$$

The weighted arithmetical mean for the taught aspect ( $a_t$ ) is calculated to full precision and then rounded to 2 decimal places.

### 3.2.3 Designated research aspect

The weighted arithmetical mean for the research aspect ( $a_r$ ) is calculated in the equivalent way to the taught aspect (see section 3.2.2) if more than one module is designated as research. Otherwise the designated research aspect is the mark for the designated dissertation or final major project module.

### 3.3 Examples

#### 3.3.1 Example 1

This programme uses the weighted arithmetical mean of the designated ‘taught’ and ‘research’ aspects for determining classifications. A student’s module results for the programme are:

Module	Grading Mode	Aspect	Credits (ECTS)	Final Mark
Maths Primer	Pass/Fail	Taught	5.00	Pass
Thermodynamics	Numeric	Taught	5.00	62.50
Rocket Propulsion	Numeric	Taught	5.00	78.00
Navigation Technology	Numeric	Taught	5.00	65.00
Composite Materials	Numeric	Taught	5.00	62.50
Classical Mechanics	Numeric	Taught	5.00	77.40
Gene Therapy	Numeric	Taught	5.00	82.50
Classical Mechanics	Numeric	Taught	5.00	67.60
Organisational Behaviour	Numeric	Taught	5.00	55.00
Financial Accounting	Numeric	Taught	5.00	67.50
Machine Learning	Numeric	Taught	10.00	82.00
Individual Project (Dissertation)	Numeric	Research	30.00	69.00

The weighted arithmetical mean of the designated ‘taught’ aspects ( $a_t$ ) for this student is calculated using all modules designated as taught except the maths primer (as it is a pass/fail module). Details of the calculation are:

$$\begin{aligned}
 a_t &= \left( \frac{1}{5.00 + 5.00 + 5.00 + 5.00 + 5.00 + 5.00 + 5.00 + 5.00 + 5.00 + 10.00} \right) \left( \begin{array}{l} (5.00 \times 62.50) + \\ (5.00 \times 78.00) + \\ (5.00 \times 65.00) + \\ (5.00 \times 62.50) + \\ (5.00 \times 77.40) + \\ (5.00 \times 82.50) + \\ (5.00 \times 67.60) + \\ (5.00 \times 55.00) + \\ (5.00 \times 67.50) + \\ (10.00 \times 82.00) \end{array} \right) \\
 &= \left( \frac{1}{55.00} \right) (312.50 \dots + 390.00 \dots + 325.00 \dots + 312.50 \dots + 387.00 \dots + 412.50 \dots + 338.00 \dots \\
 &\quad + 275.00 \dots + 337.50 \dots + 820.00 \dots) \\
 &= \left( \frac{1}{55.00} \right) (3910.00 \dots) \\
 &= 71.0909090909 \dots \\
 &= 71.10 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

In this example the research aspect ( $a_r$ ) does not need separate calculation as it is the module mark for the Individual Project (Dissertation), so  $a_r = 69.00$ . In this example the classification awarded to the student is a Merit, as while the taught aspect is greater than the threshold for a distinction the research element is not.

#### 3.3.2 Example 2

This programme also uses the weighted arithmetical mean of the designated ‘taught’ and ‘research’ aspects for determining classifications. A student’s module results for the programme are:

Module	Grading Mode	Aspect	Credits (ECTS)	Final Mark
Optical Devices	Numeric	Taught	15.00	64.00
Lasers	Numeric	Taught	15.00	78.00
Biomedical Imaging	Numeric	Taught	15.00	65.00
Nanophotonics	Numeric	Taught	15.00	52.00
Project project	Numeric	Research	5.00	61.00
Individual Project (Dissertation)	Numeric	Research	25.00	59.00

The weighted arithmetical mean of the designated ‘taught’ aspects ( $a_t$ ) for this student is calculated using all modules designated as taught, details of the calculation are:

$$\begin{aligned}
 a_t &= \left( \frac{1}{15.00 + 15.00 + 15.00 + 15.00} \right) \left( \begin{array}{l} (15.00 \times 64.00) + \\ (15.00 \times 78.00) + \\ (15.00 \times 65.00) + \\ (15.00 \times 52.00) \end{array} \right) \\
 &= \left( \frac{1}{60.00} \right) (960.00 \dots + 1170.00 \dots + 975.00 \dots + 780.00 \dots) \\
 &= \left( \frac{1}{60.00} \right) (3885.00 \dots) \\
 &= 64.75 \text{ (no rounding required)}
 \end{aligned}$$

Similarly the weighted arithmetical mean of the designated ‘research’ aspects ( $a_r$ ) for this student is calculated using all modules designated as research, details of the calculation are:

$$\begin{aligned}
 a_r &= \left( \frac{1}{5.00 + 25.00} \right) \left( \begin{array}{l} (5.00 \times 61.00) + \\ (25.00 \times 59.00) \end{array} \right) \\
 &= \left( \frac{1}{30.00} \right) (305.00 \dots + 1475.00 \dots) \\
 &= \left( \frac{1}{30.00} \right) (1780.00 \dots) \\
 &= 59.33333333 \dots \\
 &= 59.33 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

In this example the classification awarded to the student is a Pass, as while the taught aspect is greater than the threshold for a Merit the research element is not.

### 3.3.3 Example 3

This programme uses the Programme Overall Weighted Average (POWA) for determining classifications. A student’s module results for the programme are:

Module	Grading Mode	Aspect	Credits (ECTS)	Final Mark
Strategy	Numeric	Taught	7.50	54.00
Economics	Numeric	Taught	7.50	75.00
Marketing	Numeric	Taught	7.50	51.00
Organisational Behaviour	Numeric	Taught	7.50	73.00
Corporate Finance	Numeric	Taught	7.50	59.00
Financial and Management Accounting	Numeric	Taught	7.50	63.00
Leadership	Numeric	Taught	7.50	65.00
Advanced Corporate Finance	Numeric	Taught	5.00	72.00
Advanced Accounting	Numeric	Taught	5.00	74.00
Individual Project (Dissertation)	Numeric	Research	30.00	62.00

The Programme Overall Weighted Average ( $p$ ) for this student is calculated using all modules, details of the calculation are:

$$\begin{aligned}
 p &= \left( \frac{1}{7.50 + 7.50 + 7.50 + 7.50 + 7.50 + 7.50 + 7.50 + 5.00 + 5.00 + 30.00} \right) \begin{pmatrix} (7.50 \times 54.00) + \\ (7.50 \times 75.00) + \\ (7.50 \times 51.00) + \\ (7.50 \times 73.00) + \\ (7.50 \times 59.00) + \\ (7.50 \times 63.00) + \\ (7.50 \times 65.00) + \\ (5.00 \times 72.00) + \\ (5.00 \times 74.00) + \\ (30.00 \times 62.00) \end{pmatrix} \\
 &= \left( \frac{1}{92.50} \right) (405.00 \dots + 562.50 \dots + 382.50 \dots + 547.50 \dots + 442.50 \dots + 472.50 \\
 &\quad \dots + 487.50 \dots + 360.00 \dots + 370.00 \dots + 1860.00 \dots) \\
 &= \left( \frac{1}{92.50} \right) (5890.00 \dots) \\
 &= 63.675675675 \dots \\
 &= 63.68 \text{ (rounded to 2 decimal places)}
 \end{aligned}$$

In this case the student is awarded a classification of Merit.

### 3.4 Part-time programmes

In the case of part-time taught postgraduate programmes the Programme Overall Weighted Average can only be calculated at the end of the programme when the outcomes of all modules are known. Some part-time taught postgraduate programmes have a progression requirement between stages of the programme which should be outlined in the Programme Specification.