

## Unit and programme catalogues

University of Bristol

## Programme structure: Optoelectronic and Quantum Technologies (MSc) - what's running in 2022/23

This section describes which Units you will take in which year of study. It indicates which units are mandatory and where you will be able to choose. The overall pass marks you will need to achieve in order to progress or achieve an award are shown. The full regulations concerning progression and completion are held in the [University's Regulations and Code of Practice](#). Any particular aspects of your programme that are unusual will be highlighted. If any Units are must pass this will be shown below. The linked unit specifications detail any additional requirements.

[What do the Levels represent?](#)

[What do the teaching blocks \(TB\) mean?](#)

- Year 1 (2022/23)

Unit name	Unit code	Credit points	Status	Teaching Block
<a href="#">Radio Frequency Engineering (M)</a> 射频工程	EENGM6500	10	Mandatory	TB-1
<a href="#">Optoelectronic Devices and Systems (M)</a> 光电器件与系统	EENGM6020	10	Mandatory	TB-1
<a href="#">Digital Signal Processing Systems</a> 数字信号处理系统	EENGM4100	10	Mandatory	TB-2
<a href="#">Optical Communications Systems and Data Networks</a> 光通信系统与数据网络	EENGM2001	10	Mandatory	TB-2C
<a href="#">Advanced Optoelectronic Devices</a> 先进的光电器件	EENGM6000	10	Mandatory	TB-2C
<a href="#">Engineering Research Skills</a> 工程研究技能	EENGM0004	20	Mandatory	TB-2
<a href="#">Quantum Device Engineering</a> 量子元件工程	EENGM0027	10	Mandatory	TB-4
<a href="#">Research Project</a> 研究项目	EENGM8000	60	Mandatory	AYEAR
Students choose one of the 3 pathways below:				
Quantum Photonic Chip Design Pathway 量子光子芯片设计方向				
<a href="#">Integrated Circuit Electronics</a> 集成电路电子元件	EENGM6011	10	Optional	TB-1
<a href="#">VLSI Design M</a> 超大规模集成电路设计	EENGM4050	10	Optional	TB-2
<a href="#">Nanofabrication for Quantum Engineering</a> 量子工程中的纳米制造	EENGM0026	10	Optional	TB-4
		<b>180</b>		

Unit name	Unit code	Credit points	Status	Teaching Block
<a href="#">Quantum System Engineering</a> 量子系统工程	EENG0025	10	Optional	TB-4
Quantum Networks Pathway 量子网络方向				
<a href="#">Networking Protocol Principles 3</a> 网络协议原则	EENG30002	10	Optional	TB-1
<a href="#">Data Center Networking</a> 数据中心网络	EENG0008	10	Optional	TB-2
<a href="#">Optical Networks</a> 光网络	EENG0003	10	Optional	TB-2
<a href="#">Advanced Networks</a> 高级网络技术	EENG04211	10	Optional	TB-2
Quantum Information Technology Pathway 量子信息技术方向				
<a href="#">Quantum Information Theory</a> 量子信息技术	MATHM5610	10	Optional	TB-1A
<a href="#">Quantum Physics 301</a> 量子物理学	PHYS32011	10	Optional	TB-1
<a href="#">Quantum Computation</a> 量子计算	MATHM0023	10	Optional	TB-2C
<a href="#">Quantum System Engineering</a> 量子系统工程	EENG0025	10	Optional	TB-4
		<b>180</b>		

## Progression/award requirements

The pass mark set by the University for any level 7(M) unit is 50 out of 100.

For detailed rules on progression please see the [Regulations and Code of Practice](#) for Taught Programmes and the relevant faculty handbook.

## Exit awards

All taught masters programmes, unless exempted by Senate, must allow the opportunity for students to exit from the programme with a postgraduate diploma or certificate.

To be awarded a postgraduate diploma, students must have successfully completed 120 credit points, of which 90 must be at level M/7.

To be awarded a postgraduate certificate, students must have successfully completed 60 credit points, of which 40 must be at level M/7.

## Degree classifications:

An award with Merit or Distinction is permitted for postgraduate taught masters, diplomas and certificates, where these are specifically named entry-level qualifications. An award with Merit or Distinction is not permitted for exit awards where students are required to exit the programme on academic grounds but is permitted in designated programmes (as set out in the programme

specification) where students choose to withdraw from the intended programme but otherwise achieve the necessary credit points for the exit award.

The classification of the award in relation to the final programme mark is as follows:

Award with **Distinction**\*: at least 65 out of 100 for the taught component overall and, for masters awards, at least 70 out of 100 for the dissertation. \*\*Faculties retain discretion to increase these thresholds.

Award with **Merit**\*: at least 60 out of 100 for the taught component overall and, for masters awards, at least 60 out of 100 for the dissertation. Faculties retain discretion to increase these thresholds.

\* The MA in Law has separate regulations for awarding distinction and merit.

\*\* For the award of Distinction, the Faculty of Engineering requires at least 70 out of 100 for the taught component overall and, for masters awards, at least 70 out of 100 for the dissertation.

### **Diploma/certificate stages:**

All taught masters programmes, unless exempted by Senate, must allow the opportunity for students to choose, or be required, to leave at the postgraduate diploma or certificate stage.

To be awarded a postgraduate diploma, students must have successfully completed 120 credit points, of which 90 must be at level M/7.

To be awarded a postgraduate certificate, students must have successfully completed 60 credit points, of which 40 must be at level M/7.

### **Related links**

[Structure by entry cohort](#)

[Specification](#)

[Programmes available in the Department of Electrical & Electronic Engineering](#)