



Programme Specification

1. General Information

Programme title:	Intelligent Mobility
Award:	Masters
Qualification Framework level:	Level 7
School/Department or equivalent:	Research and Innovation
Campus location(s):	Battersea
Total UK credits:	180
Date valid from/to:	2022-23

2. Programme Philosophy

The Intelligent Mobility MA (IMMA) programme builds on the rich history of vehicle design at the Royal College of Art and places this within the context of a number of emerging social, cultural and technical changes. These include the shift to autonomous systems, renewable power, demographic changes and the increasing synthesis between man and machine. The programme defines and describes a paradigm shift which brings together existing fields with a design-led approach that addresses both physical and virtual aspects of the mobility space as an integrated whole.

The philosophy of this programme is to equip you to deliver critical solutions to holistic mobility needs and issues. The core approach is translating techno-cultural challenge via intense creativity and research - building mature design and innovation propositions to meet new mobility opportunities. You will work closely with mobility design practitioners, thought leaders and leading brands to ensure you have a thorough understanding of industrial practice and the opportunity to engage and influence critical questions relating to business, production and new models of ownership and use.

The aim of this commercial, connected approach is to equip you to be practice leaders within the 'third age' of automotive and mobility design and the broad spectrum of mobility services and artefacts - forming a new generation of designers who have both the skill set and mind-set to operate as strategic leaders with a broad range of abilities and insight about their own 'point-of-impact' on an increasingly diverse industry.

3. Educational Aims and Outcomes of the Programme

Programme aims

- **Aim 1 Criticality.** The IMMA will equip you to critically respond to the wider concerns of urbanism, social and technology change. You will be required to be informed and contribute to the discourse and debate about mobility - engaging with policy and the political agenda and the evolution of urban living, mobility user experience and the increasing synthesis between man and machine.
- **Aim 2 Creativity.** IMMA takes an ambitious pluralistic approach which demands you to adopt an innovative and visionary approach to the formation of new mobility propositions. IMMA promotes the development of new ideologies as part of the design process to engage with global issues such as sustainability, new technology and emergent business models.
- **Aim 3 Research.** You will explore mobility in complex and changing worlds using an innovative inter-disciplinary research informed design approach. The IMMA will aim to ensure you build expertise in the knowledge and skills necessary to apply a range of research approaches and methods.
- **Aim 4 Strategic design.** The IMMA aims to place you at the forefront of the 'third age' of automotive and mobility design. Through its original teaching timetable expert staff and collaboration with industry and users – the programme educates designers to be strategic and visionary. The programme is unique in advancing traditional mobility design into a richer space of user and techno-cultural opportunity – which demands you to be knowledgeable of, and consistent with, the standards and expectations of the mobility sector.

What will I be expected to achieve?

Upon successful completion of the programme, you will be expected to meet the requirements of both the College-wide Learning Outcomes and your programme-specific Learning Outcomes.

College-Wide Learning Outcomes

You should be able to:

- Interrogate and articulate the intentions of your work in relation to the critical and conceptual context of your field(s) of study;
- Independently plan and produce work that is informed by developments at the forefront of your field(s) of study;
- Evaluate and critique the principles and methods of research in your field(s) of study, and apply these principles to your creative, professional and/or scholarly practice;
- Demonstrate originality in how you translate knowledge into practice;
- Communicate your creative, professional and/or scholarly practice to a non-specialist audience;
- Critically reflect on the likely public impact of your creative, professional and/or scholarly practice, and on your responsibilities as a practitioner;

- Define your professional ambitions and identify the challenges involved in meeting them.

Programme-Specific Learning Outcomes

You should be able to:

- Design and develop innovative ideas that create and propose new directions for impactful mobility solutions and propositions;
- Critique, position and evaluate your work with regard to the context of the mobility landscape and to enable the production of new knowledge;
- Synthesise and produce work at a level of resolution that enables you to discuss and argue its feasibility;
- Experiment, explore and evaluate in order to translate ideas into novel mobility solutions;
- Develop a personal critical and creative identity which enables you to effectively lead the design industry.

4. What will I learn?

Curriculum Map

Term 1	Term 2		Term 3
People and Places (15 credits)	Grand Challenge (15 credits)	Automotive Transitions Fundamentals (15 credits)	Independent Research Project (60 credits)
Humanising Technology (30 credits)		School of Design OR Programme Elective (15 credits)	
AcrossRCA (30 credits)			

Programme Structure

Unit Title	Term	Credit Value	Core or Elective?
People and Places <i>(New vehicle typologies (from micro to macro) Mobility infrastructure, architecture, and sustainable placemaking)</i>	1	15	Core
Humanising Technology <i>(Exploring trust, safety, comfort and wellbeing. Developing novel interactions and journey experiences across autonomous, shared & new mobility etc.)</i>	1	30	Core

Grand Challenge (School-wide unit) Contemporary design project exploring current key global themes via team delivery	2	15	Core
Automotive Transitions Fundamentals (<i>Re-imagining vehicle packaging, architecture, vehicle typologies as part of new mobility services and products</i>)	2	15	Core
Elective <i>You can choose either (i) a School of Design elective from one of 4 high level design topics or (ii) the programme elective Automotive Transitions Advanced which builds on the fundamentals unit</i>	2	15	Elective
Individual Research Project (IRP) <i>(Self-directed and initiated intelligent mobility design project)</i>	3	60	Core
AcrossRCA (College-wide unit)	1 & 2	30	Core

Term 1: People and Places

This unit provides a framework to understand how and where future mobility fits into a changing global landscape and how people and place connect through mobility. The unit aims to sensitise you to the scope and limits of different mobility typologies within the mobility mix and highlights the need for design to meet broader infrastructural and social requirements.

Term 1: Humanising Technology

This unit aims to explore how recent transformational mobility technologies such as autonomy and electrification can be interpreted to provide new and desirable human interactions in mobility. You are expected to gain a profound and critical understanding of emerging technologies and their place in future mobility design.

Term 2: Automotive Transitions Fundamentals

This unit focuses on the future of the automotive typology and asks you to reimagine how technology and social trends will influence future automotive design. The unit also allows you to select a specific area of focus and adopt an approach which explores techniques and questions unique to your chosen sub-sector.

Term 2: SOD Elective or IM Automotive Transitions Advanced

This unit enables you to undertake one of the School of Design (SoD) electives or the IM programme AT advanced practice unit. SoD electives provide a very applied focus to the topics, through the execution of project activities you undertake by working in interdisciplinary teams which are drawn from across SoD programmes. IM AT Advanced Practice provides a deeper context to the key elements of future automotive design with an emphasis on advanced manufacturing, socio-cultural issues and questions related to future business models.

Term 2: Grand Challenge

In **term 2** you will participate in the **Grand Challenge**, School-wide unit. The aim of this unit is to connect and challenge all students in the School through the introduction of a 'wicked' design problem that requires a cross disciplinary approach to problem solving involving an external international scientific or industry partner (or both). This unit and lecture series has been hugely successful in connecting and disrupting disciplines, people, philosophies and approaches to design thinking whilst providing our student body with very unique networking opportunities.

Terms 1 and 2: AcrossRCA (College-wide unit)

Across terms 1 and 2, you will participate in **AcrossRCA**. This unit aims to support you to meet the challenges of a complex, uncertain and changing world by bringing them together to work collaboratively on a series of themed projects informed by expertise within and beyond the College. These projects will challenge you to use your intellect and imagination to address key cultural, social, environmental and economic challenges. In doing so, you will develop and reflect on the abilities required to translate knowledge into action and help demonstrate the contribution that the creative arts can make to our understanding and experience of the world.

Term 3: Independent Research Project

This is the final Master's project and asks you to identify, develop and address a defined research question which is both socially relevant and technically challenging. The work must be documented at all stages for public dissemination. You are responsible for the intellectual and technical evolution of this project and for leading the research and development of ideas and insights through different stages of the design process. This includes working out who the stakeholders are, how to research and the development of thinking through different media; notably from 2D to 3D and to an appropriate level of resolution.

The scope of the IRP will be agreed with individual student(s), and the support of their tutor and will include the following:

- A clearly articulated research question or problem;
- A defined rationale for the scope of the project including a perspective from the identified global opportunity and your personal skills and motivations;
- A plan/methodology for the development of the work
- A fully resolved vision of the work in appropriate media and a clear evidence path which has all the necessary elements of research to underpin the logic reasoning and creative decisions to narrate the IRP student journey.

5. How will I learn?

The programme will deploy a range of teaching/learning strategies to build skills at a number of levels during the MA as follows:

Personally directed study will be encouraged during the programme and will be a focus for the IRP as part of the strategic/ideological goals of the programme. Such study will be guided by tutors through regular personal and group tutorials as below.

Personal tutorials will be used to explore and challenge attitudes and knowledge about your work in context between you and your tutor.

Group tutorials will be used to debate issues across the cohorts and tutors and to examine ideas at

depth.

Group seminars will be used to provide a range of contextual and ideological knowledge.

Group workshops and skills training will be used to build key skills in a range of areas during the programme. Typical examples include specialist CAD training, research skills workshops, tailored bespoke short skills projects.

Individual interim project presentation and reviews (non-examined) will be used to assess and debate your work during projects, leading to verbal and written feedback being given.

Final examinations will be used to critically appraise work and provide feedback by an examination board on work submitted for a unit.

6. Assessment and feedback

Regulations

Regulations for assessment and progression can be found [here](#). Please note that College regulations are subject to annual updates and amendments.

Unit assessment

Assessment for the MA is conducted through a summative assessment of each unit on completion of that unit. The format for assessment will be in either viva voce examination or through submission of work which is then assessed independently of the student being present.

The following forms of assessments may be used for each unit:

- 2D graphic presentations, drawings and other 2D media;
- 3D models - physical and digital;
- Interactive simulated environments;
- Working physical samples, prototypes and mock-ups;
- Digital media, films, video presentations and virtual reality;
- Verbal 'viva voce' style presentations;
- Written documents, summaries and other text descriptions and narratives;
- Critical forums and discussion – peer-to-peer and peer-to-tutor.

7. What award can I get?

To be awarded an RCA MA degree you need to gain 180 credits at level 7 of the Framework for Higher Education Qualifications (FHEQ). This will involve successfully completing all units. If you fail a unit at the first attempt, you will be offered an opportunity to resit the unit. If you are successful at resit you will be awarded the credits for that unit. If you are unsuccessful, you cannot progress further in your programme.

Exit awards:

If you have gained at least 120 credits at level 7 of the FHEQ, you may be eligible for the exit award of Postgraduate Diploma. An exit award is a final award from the College and cannot be rescinded.

For more detailed information about the College's assessment, progression and awards policies see the Regulations.

8. Admissions

Cross-College requirements

Academic Entry Requirements

Candidates must normally have obtained a good relevant undergraduate degree or an equivalent qualification. The College recognises as an equivalent qualification any degree, diploma, certificate or other evidence of formal qualification awarded by a university or other higher education establishment where the award is made following the successful completion of a programme of at least three years' study, the programme of study being open, as a general rule, only to persons holding a certificate awarded on the successful completion of a full programme of upper secondary education.

Other qualifications may be approved, providing that the College's Academic Board for Concessions and Discipline (ABCD) is satisfied that the applicant has the ability to pursue the programme of study successfully. The ABCD is empowered to make judgements about the extent to which qualifications or experience gained elsewhere may be accepted in partial fulfilment of its requirements.

Portfolio

All applicants are required to submit a portfolio as part of the application process. A portfolio is a showcase of an applicant's work as an artist or designer and can be made up of images, videos or writing examples. The portfolio helps us to better understand the applicant and allows them to show evidence of their ability and motivation to undertake a given programme.

Each programme is looking for different things in a portfolio; each Head of Programme provides specific advice on portfolio requirements in the online application system. We advise prospective students to consider these requirements carefully before submitting their application.

Applicant Qualities

Generally, we are looking for applicants to demonstrate their:

- creativity, imagination and innovation;
- ability to articulate the intentions of the work;
- intellectual engagement in areas relevant to the work;

- technical skills appropriate to the work;
- potential to benefit from the programme and achieve MA standards overall.

English Language

Applicants who are not a national of a majority English-speaking country will need to demonstrate their English language proficiency. The College accepts a range of English language qualifications. The full list can be seen at <https://www.rca.ac.uk/studying-at-the-rca/apply/entrance-requirements/english-language-requirements/>

Applicants are exempt from this requirement if they have received a 2.1 degree or above from a university in a majority English-speaking nation within the last two years.

If a student would need a Tier 4 visa to study at the RCA, they will also need to meet the Home Office's minimum requirements for entry clearance.

Admission Process

Applications must be made directly to the College through our online application portal: <https://www.rca.ac.uk/studying-at-the-rca/apply/application-process/ma-application-process/>

Upon completion of that first stage of the application process, candidates will be invited to submit a portfolio of their work, a 300-word statement of intent and a video communicating clearly their motivations, personal interests and why they are pursuing a Masters degree at the Royal College of Art. These materials are reviewed by members of the programme team who will communicate an academic decision to the College Registry, who manage the process of offer-making in line with the College's recruitment targets. In some cases, where the programme team is not able to make an admission decision based solely upon the work submitted by the applicant, we may invite the candidate to undertake an interview with us.

Applications are considered chronologically by date and time of final portfolio submission. Whilst a programme still has vacancies, successful candidates will be made an offer of a place. Once a programme becomes full, subsequent successful applicants will be placed on a waiting list, and may be made a firm offer should a place become available for them.

Programme-Specific requirements

Specific advice on programme portfolio requirements is provided by the Head of Programme in the online application system. Please consult the College website for further information on programme-specific admission and portfolio requirements:

<https://www.rca.ac.uk/study/programme-finder/intelligent-mobility-ma/#requirements>