

BSc (Hons) Design and Colour Applications

1. Introduction

The course provides students with the knowledge and skills to design and use colour effectively in their creative works. Students would learn to think and intervene creatively to improve the quality of product and services of the creative design and manufacturing industry. A major part of the programme deals with colour which is a very important component of design, creativity and innovation. Elements of sustainability have been introduced in the programme for a greater awareness of the renewable and eco-friendly resources available to designers and colourists.

With the pervasive use of computers to support design and manufacturing processes, there is a recognised need by employers for designers-cum-colourists to understand how coloured media/materials can be specified, transformed, communicated and managed effectively. Colour plays a vital role in business and industry as it may influence human psychology, physiology, philosophy and actions. The colours applied to designed products, web site, packaging, food, designed logos or eco-building are destined to convey powerful messages. In the context of sustainable development (eco-buildings, green packaging, hybrid cars), 'green' materials, smart colours and designs are being used to reduce energy consumption and environmental pollution.

Design and colour graduates should, therefore, develop the skills, knowledge and competencies to adapt to the dynamic creative design and manufacturing industry. Research, in the form of mini-projects and related works, will be a fundamental component of the programme.

2. Aim

The aim of this programme is to produce graduates with a broad-based knowledge of design processes together with a good appreciation of colour science and colour-related technologies.

3. Objectives

- a) Provide learners generic design skills for application in the creative and manufacturing industries;
- b) Introduce colour, technology and sustainability into design;
- c) Develop and manage colour ideas and associated technologies in creative design projects;
- d) Appreciate the impact of sustainable technologies in design and colour choices;
- e) To develop student's ability to carry out research.

4. Job Opportunities & Prospects

Graduates can seek employment as graphic designers or product developer in advertising and manufacturing industry, interior and/or exterior designers, colour specialist in manufacturing and design industry, colour technologist and colour forecaster & trend analyst.

5. General Entry Requirements

As per General Entry Requirements for admission to the University for Undergraduate Degrees.

6. Programme Requirements

Five credits at SC/ 'O' Level, including Mathematics and Chemistry.

Any 2 GCE 'A' Level Passes. A Foundation in Art, Design & Technology or in a design-related subject awarded by a recognised awarding body is also acceptable as NQF level 5.

OR alternative qualifications acceptable to the UoM.

In case of a tie between applicants' grades, priority will be given to candidates having studied design-related subjects at 'A' level, such as Design and Technology.

7. (i) Minimum Requirements for Degree Award – 105 credits

(ii) Minimum Requirements for Diploma Award – 60 credits

A student may opt for a Diploma in Colour Applications for the Industry provided s/he satisfies the following corresponding minimum requirements.

Minimum Credits Required for the Award

MODULES	Minimum Credits Required	
	Degree	Diploma
GEM	6	6
Humanities & Management	15	9
Technology & Engineering	12	9
Departmental	72	36
TOTAL	105	60

The Diploma project would normally be of 8 weeks duration for an input of at least 90 hours

8. Programme Duration : Full-Time

	Normal (Years)	Maximum (Years)
Degree:	3	5

9. Credits per Year

Minimum 18, Maximum 48, subject to Regulation 8 above.

10. Assessment

Examinable Modules

A given module can either be taught in semester 1 only or in semester 2 only or throughout the two semesters.

Assessment will be based on a written examination of 2 to 3-hour duration (normally a paper of 2-hour duration for modules carrying less or equal to 3.5 credits and a 3-hour paper for modules carrying five or more credits) and on continuous assessment carried out during the semester or year.

Written examinations for all yearly modules will be carried out at the end of the academic year. Written examinations for semester modules will be carried out at the end of each respective semester.

The continuous assessment will count for 20-30% of the overall percentage mark of the module(s), except for a Programme where the structure makes for other specific provision(s). Continuous assessment may be based on laboratory work, seminars and at least 2 assignments/tests per year per module.

There will be a compulsory class test for all semester modules at the end of the semester, unless otherwise stated in the programme structure.

An overall total of 40% for combined continuous assessment and written examination components would be required to pass the module, without any minimum thresholds within the individual continuous assessment and written examination. The same criterion will apply for modules being assessed jointly.

Special examinations (e.g. class tests) will be arranged at the end of semester 1 or semester 2 for exchange students who have registered only for one semester. In case of yearly modules, credits will be assigned on a pro-rata basis.

The following modules will be assessed as specified hereunder:

CAAS 1001Y(3), DASE 1101Y(3), CAAS 1201(3), CAAS 2002Y(3), CAAS 2203Y(3), CAAS 2204Y(3), CAAS 2205Y(3), CAAS 3202(3)

There will be a minimum of 3 assignments and 1 mini-project per yearly module, and a minimum of 1 assignment and/or 1 mini-project per semester module, which will account for 60% of total marks. A final assessment based on 40% of total marks will be conducted at the end of the semester/ year by the resource person concerned under examination conditions.

11. GEMs

Students may be allowed to choose any other GEMs on offer, besides those already specified on the programme structure.

12. List of Modules – B.Sc (Hons) Design and Colour Applications

CORE MODULES

Code	Module Name	Hrs/Wk L+P	Credits
GEM FOS 1010	Science, Technology, Human Values & the Society		6
Humanities & Management			
COMS 1010(1)	Communication Skills	D.E.	3
MGT 2251Y(1)	Entrepreneurship, Leadership & Innovation	3+0	6
Technology & Engineering			

CSE 2014Y(3)	Graphic Design	1+4	6
Departmental			
DASE 2101(1)	Philosophy of Design	3+0	3
DASE 1101Y(3)	Applied Drawing Techniques	1+4	6
CAAS 1001Y(3)	Fundamentals of Design	1+4	6
CAAS 1002Y(3)	Colour Communication	3+1	7
DASE 1102Y(3)	Materials I	3+2	8
CAAS 2001Y(5)	Colouration Technology	2+3	7
CAAS 2002(3)	Colour Trends & Forecasting	1+4	3
CAAS 2201(3)	Quality Assurance	3+0	3
CAAS 1200	Industrial Placement I	8 weeks	0
CAAS 2200	Industrial Placement II	8 weeks	0
CAAS 3101(3)	Surface Colouration	2+2	3
CAAS 3202(3)	Marketing for the Creative Industry	2+2	3
CAAS 3001Y(5)	Design Project	0+12	6
CAAS 3000Y(5)	Dissertation	-	9
TOTAL (Departmental)			64

ELECTIVES

Code	Module Name	Hrs/Wk L+P	Credits
Technology & Engineering			
CSE 1003(1)	Computer Programming	3+0	3
CSE 1242(1)	Human Computer Interaction	2+2	3
CAAS 2202(3)	Colour Imaging & Processing	2+2	3
CAAS 1201(3)	Creativity and Innovation	2+2	3
DASE 1202(1)	Biodiversity & Climate Change	3+0	3
Humanities & Management			
MGT 1026Y(1)	Principles and Practice of Management	3+0	6
DASE 1100Y(1)	Business Language	3+0	6
MGT 2083Y(3)	Brand Management	3+0	6
DASE 2102Y(3)	Sustainable Business Practices	3+0	6
Departmental			
CAAS 2203Y(3)	Creative Illustration for Fashion	2+4	8
CAAS 2204Y(3)	Interior & Exterior Design and Colours	2+4	8
CAAS 2205Y(3)	Design and Colour in Advertising	2+4	8

YEAR 1

Semester 1				Semester 2			
Code	Module Name	Hrs/ Wk	Credits	Code	Module Name	Hrs/ Wk	Credits
		L+P				L+P	
SEMESTER CORE MODULES							
COMS 1010(1)	Communication Skills	D.E.	3	CAAS 1200	Industrial Training 1	8 wks	0

YEARLY CORE MODULES

GEM

CAAS 1001Y(3)	Fundamentals of Design		
CAAS 1003Y(3)	Colour Communication		
DASE 1101Y (3)	Applied Drawing Techniques		
DASE 1102Y(3)	Materials I		

YEARLY ELECTIVE MODULE

MGT1026Y(1)	Principles and Practice of Management	3+0	6
DASE1100Y(1)	Business Language	3+0	6

SEMESTER ELECTIVE MODULES

CSE 1003(1)	Computer Programming	3+0	3
CAAS 1201(1)	Creativity & Innovation	2+2	3
DASE 1202(1)	Biodiversity & Climate Change	3+0	3

YEAR 2

Semester 1				Semester 2			
Code	Module Name	Hrs/ Wk	Credits	Code	Module Name	Hrs/ Wk	Credits
		L+P				L+P	
SEMESTER CORE MODULES							
DASE 2101(1)	Philosophy of Design			CAAS 2201 (3)	Quality Assurance		
CAAS 2002(3)	Colour Trends & Ftng	1+4	3	CAAS 2200	Industrial Training 2	8 wks	0
YEARLY CORE MODULES							
CAAS 2001Y(5)	Colouration Technology					2+3	7
CSE 2014Y(3)	Graphic Design					1+4	6
MGT 2251Y(1)	Entrepreneurship, Leadership & Innovation					3+0	6
YEARLY ELECTIVE MODULES							
CAAS 2203Y(3)	Creative Illustration for Fashion					2+4	8
CAAS 2204Y(3)	Interior & Exterior Design and Colours					2+4	
CAAS 2205Y(3)	Design & Colour in Advertising					2+4	
DASE 2102Y(3)	Sustainable Business Practices					3+0	
SEMESTER ELECTIVE MODULES							
				CAAS 2202(3)	Colour Imaging & Processing	2+2	
				CSE 1242(1)	Human Computer Int		

YEAR 3

Semester 1				Semester 2			
Code	Module Name	Hrs/ Wk	Credits	Code	Module Name	Hrs/Wk	Credits
		L+P				L+P	

SEMESTER CORE MODULES

CAAS 3101(3)	Surface Colouration	2+2	3	CAAS 3202(3)	Marketing for the Creative Industry	2+2	3
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YEARLY CORE MODULES

CAAS 3001Y(5)	Design Project					0+12	6 9
CAAS 3000Y(5)	Dissertation					-	9

YEARLY ELECTIVE MODULES

MGT2083Y(3)	Brand Management					3+0	6
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13. OUTLINE SYLLABUS

This outline syllabus is not prescriptive and is intended to serve as a guide only.

COMS 1010(1) - COMMUNICATION SKILLS

Writing skills, non-verbal communication, modes of speech delivery and presentation aids, speeches, perception and listening skills, business and technical writing.

CSE 1003(1) COMPUTER PROGRAMMING

Variables, Data Types, Flowcharts and Pseudo-codes, Simple Programming Constructs, Functions, Control Structures, Arrays, File-Access, User-defined Types, Classes.

CSE 1242(1) – HUMAN COMPUTER INTERACTION

Introduction to HCI, Human Characteristics, The Computer and I/O Devices Capabilities, Principles of GoodScreen Design, Development of System Menus and Navigation Schemes, Interaction Styles, Characteristics of Graphical and Web User Interfaces, HCI in the Software Process, Implementation Support, Evaluation Techniques, Cognitive Models, Tasks Analysis, User Interface and Data Visualization, Designing UserInterfaces for Embedded Devices.

MGT 1026Y(3) PRINCIPLES AND PRACTICE OF MANAGEMENT

Part 1: The study of organizations; The environment of Organizations; Evolution of Management theory; Management concepts; Functional Areas of Management: Production, Finance, HR and Marketing, The Managerial functions of Planning, Leading , Organising, Controlling; Managerial Skills. Part 2: Managing individuals in organisations: Managing differences; Motivation, Managing Groups and Teams: Group behaviour; Conflict and co-operation; Power and Politics; Leadership; Social Responsibility. Part 3: Managing Structure and processes: Organisational structure; Job design; Restructuring, Communications, Careers, Change; Diversity; Knowledge Management. Part 4: Evolution of Marketing, Marketing Mix, 4 Ps of marketing.

CAAS 1001Y(3) - FUNDAMENTALS OF DESIGN

A study of the basic elements and principles of design such as line, shape, space, texture, value and colour, as well as describing the principles of design which are movement, emphasis, balance and unity and understand how they are applied to product design; the relation of colour in all aspects of design with its multitude of definitions, concepts and design applications; the definitions and study of colour harmony and formulas, colour schemes; colour psychology and philosophy in design and how it conveys meanings; natural associations and psychological symbolism; design requirement and awareness of colour and its communicating aspects; colour therapy in design; work supported by mini-projects.

CAAS 1003Y(3) COLOUR COMMUNICATION

An introduction into the history of colour; traditional and modern use of designs and colours in different cultures; the study of the developments of colours (dyes, coatings and pigments); the development of colour terms in languages; foundation in basic mathematics and physics of light interaction; fundamentals of colour vision and appearance, theory and description of light and light sources; mixing of colours; light, dyes and pigments; interaction of light by materials: gloss and matt surfaces. The human eye; defective colour vision; theories of colour vision; trichromatic and opponent theories; colour communication, verbal and non-verbal: colour specification, measurement and communication; colour order systems; colour wheel, colour atlases, Munsell system, NCS and Pantone systems; Foundation in basic trigonometry, algebra and calculus for numerical methods of specifying colour; giving numbers to colour; colour difference equations, delta E (ΔE); metamerism and colour constancy; colour measuring instruments; construction and operation; application of colour measurement, practical aspects of colour assessment; colour perception and communication for the visually impaired; management of colour in design and manufacture; case studies and mini-projects

DASE 1100Y(1) BUSINESS LANGUAGE

In a given academic year, students would be required to register for ONE business language amongst Mandarin, Spanish and German. However, the offer of this elective module would depend on a critical mass of students registering for this module.

DASE 1101Y(1) APPLIED DRAWING TECHNIQUES

Introduction to drawing practice and basic standards. Freehand sketching: Drawing of 3D objects, shapes, human body and character. Proportions. Perspective drawing. Use of different pencil types and colouring and inking. Geometrical constructions; curves, blending of curves; locus, ellipse. True lengths & true shapes. Introduction to development (prisms, cylinders and truncated parts); Systems of projection; auxiliary views. Basic dimensioning. Sections of 3D object of different materials and sectional views. Scales. Introduction to AutoCAD 2008: Basic draw commands, View commands, modify & construct commands, text, object snap, layer creation and management, hatching, dimensioning.

DASE1102Y(3) MATERIALS I

This module covers the production, structure, properties and applications of fibrous polymeric materials such as cellulose, protein fibres, plant fibres and their organic counterparts. Fair-trade materials. Sustainable materials. Man-made and wood fibres. Bagasse. Aramid, carbon, alginate and silica glass fibres. Engineered fibrous assemblies. Glass, recyclable glass. Paper and board, carton board, corrugated board. Clays. Metals. Recycling.

CAAS 1201(3) CREATIVITY AND INNOVATION

Processes of original & creative thinking; lateral thinking; generation of innovative ideas/concepts and their manifestation from thought into reality; use of experiential methods (meaning from direct experience) including case studies and team projects to demonstrate the process of creative thinking and generation of innovative ideas. The module focuses on stimulating creativity in individuals and helping students to identify factors that promote and inhibit creativity & innovation. Innovation and product management of coloured materials.

DASE 1202(1) BIODIVERSITY & CLIMATE CHANGE

Introduction to the causes and adverse effects of climate change and adaptation strategies. The value of biodiversity to mankind and ecosystems. The importance of functioning of ecosystems. Knock-on effects of the loss of biodiversity from rainforests through indigenous species to fish stocks. Biodiversity profiles of Mauritius, Rodrigues and Australia. Endemic species. Restoration of drying rivers and seas. Profit, greed and multinationals. Sustainable development: the triple bottom line. Case studies.

CAAS 2001Y(5) COLOURATION TECHNOLOGY

Foundation in organic and inorganic chemistry as relevant to colourants; the general chemistry of colourants (dyes, pigments, inks, varnishes, paints); classes of colourants, theories of colorant diffusion into materials, principles and theory of coloration; coloration technology for various substrates; application of colour in design and manufacture; effect of texture, mechanical and chemical finishing on coloured substrates; testing of coloured substrates; use of eco-friendly colourants and sustainable finishes for textiles; resource-recovery technologies (recycling, re-use) in colouration and finishing.

CAAS 2002Y(3) COLOUR TRENDS & FORECASTING

Identification of colour trends and creation of forecast information for professionals who design, use and market colour and colour products; fashion as a leading indicator for short term colour applications; trends in colours and their effects on marketability of products, use of colours for shorter and longer term products; sourcing of colour and colour inspiration through project work, creation of colour in design and manufacture

CSE 2014Y(3) –GRAPHIC DESIGN

Fundamentals of graphic design; overview of graphic systems, computer graphics, colour schemes in computer graphics; introduction to basic graphic design software: illumination and shading models, rendering techniques for shaded images, CAD, drawing, editing and presentation; a brief introduction to web design; use of colour in interactive design and animation; communication of digital design ideas using colour; new technological developments; lab-based assignments

DASE 2102Y(3) SUSTAINABLE BUSINESS PRACTICES

This module will be broad based and will look at sustainable business practices in a number of key sectors of the Mauritian economy, from manufacturing through agriculture to luxury hotels. The triple bottom line: economic, social and environmental activities and their interactions. Rainwater harvesting (water positive), Reforestation (carbon positive). Initiatives for reducing emissions and achieving carbon neutrality. Cleaner production technologies. ISO 14000 Standards; Environmental Management Systems (EMS)/Environmental Auditing. Re-use, reduce, recycling. Renewable energies. Smart electricity grids.

CAAS 2201(3) QUALITY ASSURANCE

Foundation in basic statistics as relevant to quality assurance; quality concepts: Deming, Shewhart, Taguchi and Crosby. Quality control, Total Quality Management, Zero-defects concepts, six-sigma, statistical tools and analysis, Pareto Analysis, Cause and effect diagrams, Control charts, Process capability analysis. Quality Management in design and manufacturing processes; Quality System Standards: ISO 9000. Quality costing.

CAAS 2202(3) COLOUR IMAGING & PROCESSING

Colour science into the digital imaging technology; an introduction of image capturing & display devices (cameras, scanners): introduction to image acquisition, image processing fundamentals and storage; image analysis, image compression, image synthesis, image origination and display; methods for characterizing displays for digital cameras &, computer display devices; colour images in television and video.

CAAS 2203Y(3) CREATIVE ILLUSTRATION FOR FASHION

Fashion model drawing using adobe illustrator; colour & texture rendering; illustrative techniques; face and hair details; fashion garment details; flat and spec drawings; use of CAD to develop fashion collections, client visuals and presentation. Colour in the design process for textile (fabric stripes, checks) and fashion; colour matching and harmony; e-portfolio; project exhibition and showcasing.

CAAS 2204Y(3) INTERIOR & EXTERIOR DESIGN AND COLOURS

Elements and principles of design for interior design; detailed colour theory, including full development of colour schemes; use of coloured materials such as wood, stone, metal, glass for interior and exterior design; how to present e-boards; measuring rooms and estimating materials quantities; simple plans and elevations; decorative paint finishes; planning rooms; soft furnishings - textiles, window treatments, upholstery, carpets; internal fittings; lighting; colour patterns and colour harmony in nature, colour selection, colouring materials and application techniques on exterior surfaces in building construction and automobile industry, colour in landscape design. Contribution of colour to healthy physical & human environments, enhancement of built environments, chromatherapy, vaastu and feng shui; project exhibition and showcasing.

CAAS 2205Y(3) DESIGN & COLOUR IN ADVERTISING

Elements and principles of design in advertising; the use, development and management of design and colour ideas in advertising; the effective use of colour, through photography and other multi-medias, in advertising; advertising campaigns; exploring the creative potential of colour and design in advertising images; project exhibition and showcasing.

MGT 2251Y(1) ENTREPRENEURSHIP, LEADERSHIP & INNOVATION

Part I: Creativity techniques in Business, Innovation and the Product life Cycle, Types of Innovation & Innovation Management, Creativity/Innovation/Entrepreneurship, Leadership Theories and Management, Entrepreneurs, Entrepreneurship, Intrapreneurship. Entrepreneurship, Poverty Alleviation through the Microcredit Scheme, Analysis of the Business Environment, Small Business Management – HRM, Marketing & Finance, Legal Aspects of Entrepreneurship, The Business Plan – Structure & Function; Part II: Entrepreneurship & Social Enterprise, Entrepreneurship Culture, Role of Government and other institutions in financial and non-financial support, Leadership skills, Communications skills, Negotiation skills, Team Building, Networking, Outsourcing and Geographical Clusters, Corporate Venturing and the Social Entrepreneurship, Women Entrepreneurship/Microcredit Scheme and Social Peace, Strategic HRM, Marketing Strategies and Financial Management for small firms and the Social Enterprise, The socio economic continuum - governance, Ethics & CSR, Occupational Safety & Health, Business growth strategies, Opportunities in business and Social Entrepreneurship, Business Planning.

CAAS 3101(3) SURFACE COLORATION

Printing technology and techniques, digital printing on variable substrates, study of effect of texture on surface colours, colour and chemical coating processes and technologies for various industries such as automotive painting, furniture, thermoplastic, and packaging; use of eco-friendly printing inks for surface coatings and printing; recycling of print paste; eco-friendly and sustainable finishing.

MGT 2083Y(3) BRAND MANAGEMENT

Introduction to branding, brand equity, customer based brand equity, identifying and establishing brand values, designing and managing brand elements, building brand image and customer loyalty, planning and implementing brand marketing programs, managing brand knowledge, measuring brand equity – qualitative and quantitative methods, brand management and new product development, the brand report card, brand architecture and extensions, branding and distribution and pricing policies, branding IMC and brand equity, measuring brand performance, brand differentiation and positioning, growing and sustaining brand equity, service branding, internet branding, global brands, managing brands overtime, brand rejuvenation – rebranding and repositioning.

CAAS 3202(3) - MARKETING FOR THE CREATIVE INDUSTRY

Nature and Scope of Marketing; The Marketing Environment; Marketing Research and Marketing Information Systems; Buyer Behaviour; Marketing Mix: Product and Services, Price (pricing considerations and pricing methods), Promotion (Advertising, Personal Selling, Public Relations, Sales Promotion, Direct Marketing & Sponsorship); Social responsibility; Ethics; Green Marketing; Customer Relationship; Marketing Communications- an overview, Creativity and creative strategies and tactics in marketing (effective use of colour and design), merchandising; support media, internet and interactive media

CAAS 3001Y(5) DESIGN PROJECT

Students would be required to undertake a design project, work out a project proposal detailing colour ideas for the project supported by relevant client visuals. They would be encouraged to work closely with the manufacturing industry and other business sector. Project Exhibition and showcasing.

CAAS 3000Y(5) FINAL YEAR DISSERTATION

Project in ‘Colour Applications’ and related areas supported by a dissertation of about 8,000 to 12,000 words.