Wanna have a Designer future?

A career in design?

Designers shape the world around us. Think about the design of the building you are in, the digital interface of your cellphone or the clothes you are wearing. These are examples of design that we can see and touch. But design is broader than this, and includes the design of services and systems too. Think of the way a bus service runs, the route it travels and where it stops. This is an example of transport system design.

There are many exciting careers in the broad field of design. The aim of this poster is to give you information on design-related career options to help you think about an area that appeals to your interests and strengths. Use the directory to find art and design centres you can attend while you are at school, and tertiary colleges and universities to apply to after matric.

What does a designer do?

Graphic designers create company logos, packaging for products and magazine layouts; industrial designers create products like cell phones and kitchen appliances; and architects design houses, apartment blocks and shopping centres. It is a designer's job to come up with ideas that improve the way things work.

One of the most exciting things about design is that it is increasingly being used to help find solutions to tough problems. We need homes that use less energy, healthcare systems that serve patients better and products that are made using fewer resources. Using creativity and skill, designers can play a role in helping solve each of these problems.

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www.ccdi.org.za

Where to study.

If you want to study design after school there are many colleges and universities to choose from. A lot will depend on your finances as many design colleges can be expensive, but if you are previously disadvantaged you may be able to apply for a bursary to help cover costs.

If funding is an issue, the Cape Peninsula University of Technology (CPUT) is a good first option to explore as they offer a wide variety of design courses and have good financial support available.

Once you have found a career you are interested in try to job shadow for a few days to get first hand experience and see the kinds of activities that are involved in the job. It will give you a chance to speak to designers working in the industry and ask for their recommendations on where to study. To organise an internship you will need to contact a local advertising agency, design studio or other place of work and ask if you can job shadow.

Preparing to study.

Entry requirements differ from course to course. Some courses, like Engineering and Architecture, will ask for specific grades in subjects such as Science and Maths. Others will ask for a National Senior Certificate and a portfolio of work to show your creative talent. It's best to find out the entry requirements far in advance so that you can be prepared.

Enquire about when your application needs to be submitted. Applications can close as early as 6 months prior to the start of the course. If you can't afford to study after Matric, find a mentor working in your chosen field to give you advice and guidance. Many designers are self-taught, and with determination, curiosity and good tutorials on the Internet, it is possible to create a portfolio of work to get your first job.

Download posters of each design character from our website www.ccdi.org.za

Navigate to the 'Design Support' tab then 'How do I become a designer?'

Be your own boss.

Creative people often start successful businesses because they are able to see and create opportunities that others may miss. By using your creative skills and vision you can set up your own business and create your own income, and one day hopefully employ others too!

If you are interested in business you can start small and slowly grow your idea. If you become a graphic or web designer you can sell design services to other businesses, and if you become a furniture designer or industrial designer you can set up a store and sell your products.

To run a successful business you will need good design and business skills. You can acquire business skills through further training or by collaborating with others. The Cape Craft + Design Institute (CCDI) exists to support creative businesses. It is free to become a member and you can access subsidised business workshops and other support that will help you take your business to the next level.

Directory:

Art Centres:
The following Art Centres offer Design and Art as school subjects. Many of the Art Centres offer after-hours and weekend programmes for a range of ages.

Children's Art Centre - Walmer Estate
Drawing, Painting, Ceramics, Sculpture & Textile Design for Gr R – 7
www.thechildrensartcentre.co.za
021 465 3140

Battswood Arts Centre - Grassy Park
Art, dance, drama and music
021 706 5792

Frank Joubert Art Centre - Newlands
Visual Art and Design for Primary and High School learners
www.frankjoubertartcentre.co.za
021 683 2720

Hugo Naude Arts Centre - Worcester
Creative Art Classes for Gr 8 and 9; Visual Art and Design for Gr 10 – 12
kunssentrumhugonaude.co.za
023 347 1552

Jack Meyer Art Centre - Paarl
Visual Arts & Design for Gr 10 – 12
jackmeyerart.blogspot.co.za
021 872 2095

PJ Olivier Art Centre - Stellenbosch
General Art for Gr 8 and 9; Design and Visual Art for Gr 10 – 12
www.artcentre.co.za
021 886 4854

Tygerberg Art Centre - Parow
Visual Art and Design for high school students
021 939 9293

Community Organisations:
The following organisations offer arts and creative training for school learners in specific areas.

Innovate South Africa provides a platform to ignite creative thinking, nurture invention and encourage entrepreneurship among young people. One of their programmes is Innovate the Cape, a high school innovation challenge that invites high school learners to think of the challenges in their communities and dream of solutions to address them. Students submit their ideas online and those with the best designs receive funding and support to materialise their ideas.
www.innovatesa.org
021 685 0991

Amy Biehl Foundation provides a variety of after school programmes including Creative Arts. Some programmes include lessons in basic art and painting skills and training in various musical instruments.
www.amybiehl.co.za | 087 150 9741

Lalela Project offers after school art workshops in Masiphumelele, Hangberg, Imizamo Yethu, Mfuleni and Nyanga.
www.lalela.org | 021 790 1108

Tech, Business & Entrepreneurship Courses

R-LABS - Bridgetown
R-LABS Leadership Academy offers young people aged 18 – 25 an extensive programme in community development, entrepreneurship, digital technology, social innovation and leadership. Design-related courses include introduction to computers, digital essentials, web publishing, principles of graphic design, photography and user-interface design. R-LABS offers many scholarships to attend training.
www.rlabs.org | 021 699 1453

The Raymond Ackerman Academy - V&A Waterfront
A post-matric level programme that teaches entrepreneurial and life skills for a period of six months. The course provides a tertiary education to those who cannot afford to attend university.
www.ackermanacademy.co.za
021 406 3208

Cape Innovation and Technology Iniative (CiTi) - Woodstock and Khayelitsha
CiTi prepares South Africa's youth for jobs in the tech industry. They offer employment-focused IT training and aim to prepare young people for the working world. They offer entrepreneurship and digital skills training from basic computer literacy courses, to courses for people with a business idea to those running mature tech business.
www.citi.org.za | 021 409 7000

codeX - V&A Waterfront
codeX is a full-time apprenticeship where students build real projects for real companies. Students learn industry standard programming languages like Java, PHP, Python, and Javascript. After a year at codeX students are connected to job opportunities or given guidance in setting up their own business. There are sponsorships available to cover tuition, transport, and living stipends. Applicants need to complete Codecademy courses (free online coding courses) in HTML & CSS and JavaScript to get into codeX.
www.projectcodex.co | 021 832 0955

Code4CT - Rondebosch
Code4CT is an 18 month programme for high school girls that introduces them to coding, design thinking and the possibilities in the tech industry. They receive lessons in HTML, CSS JavaScript, UX and WordPress and are able to design websites for real clients.
www.code4ct.com | 021 685 0991

Codespace - Rondebosch
Codespace equips South African youth with the skills they need to be innovative web developers. It is a full-time 5 month course. Students learn web development, design thinking and undergo professional development to prepare them for the working world. Students need to be between 18 – 24 and have a Matric exemption with a pass in Maths and English.
www.innovatesa.org/codespace
021 685 0991

I-CAN (Interactive Community Access Network) - Elsies River
I-CAN aims to enhance the innovation and creativity of citizens. They provide a range of courses in various areas such as digital media, programming, app development, film production and entrepreneurship.
www.i-can.org.za | 021 827 0025

The Cape Craft + Design Institute (CCDI) - Cape Town CBD
The CCDI supports individuals to grow their creative businesses. They offer a range of business courses covering business vision, costing and pricing, social media and more. They also have a prototyping lab where designers, makers and craft producers can receive help in prototyping their products, as well as a programme to help people find new markets. CCDI also offers support for more mature businesses seeking export guidance and funding opportunities.
www.ccdi.org.za | 021 416 1488

Bridging Courses & Vocational Training:

Learn to Earn - Khayelitsha
Learn to Earn offers a one year Graphic Design bridging course. It requires a Matric Exemption Certificate, computer literacy skills and an entrance portfolio and costs roughly R1200. The course serves to bridge the gap between high school education and entrance into tertiary education. They also offer courses in business skills, computer skills, basic handyman skills, sewing and woodwork.
www.learntoearn.org.za
Tel: 021 361 5972

Cape Peninsula University of Technology (CPUT)
CPUT's General Design Foundational Year prepares unqualified students for a three-year undergraduate programme in design. Admission requirements include a portfolio, drawings, a written submission and an interview.
www.cput.ac.za | 021 959 6767

The Communiversity of South Africa is a pre-professional foundation programme that prepares students for employment, career training programmes or further education by offering practical training in trades, skills, and professional development.
www.communiversitysa.org
021 824 0055

Do you have what it takes?

- Innovative and creative thinker
- Problem-solving abilities
- Attention to detail
- Strategic planner
- Can work towards deadlines
- Empathy
- Self-discipline
- Self-motivation
- Perseverance
- Strong communication skills
- Team player

Tertiary Institutions:

Public Universities
Offering a range of foundation to postgraduate degrees and diplomas.

Cape Peninsula University of Technology (CPUT):
Architectural Technology, Design, Fashion, Graphic Design, Information Technology, Interior Design, Jewellery Design, Multimedia, Photography, Surface Design, Town & Regional Planning, Film & Video. Engineering: Chemical, Civil, Electrical, Mechanical, Maritime, Industrial, Systems
www.cput.ac.za
021 460 3911

University of Cape Town:
Architecture, Film & Media, Fine Art. Engineering: Chemical, Civil, Electrical, Mechanical
www.uct.ac.za
021 650 9111

University of Stellenbosch:
Visual Arts: Fine Arts, Jewellery Design, Visual Communication. Engineering: Chemical, Civil, Electrical, Industrial, Mechatronic, Mechanical.
www.sun.ac.za
021 808 9111

University of the Western Cape:
Technology Education, Urban Planning
www.uwc.ac.za
021 959 3900

Colleges
Offering skills-based technical design degrees, diplomas and certificates.

Boland College:
Electrical & Civil Engineering, Building Construction & Design
www.bolandcollege.com
021 886 7111

College of Cape Town:
Art & Design, Jewellery, Electrical & Civil Engineering
www.cct.edu.za
021 404 6700

False Bay College:
Engineering Studies, Animation
www.falsebaycollege.co.za
021 701 1340

Northlink College:
Engineering Studies, Building Skills
www.northlink.co.za
08600 65465

South Cape College:
Engineering Studies
www.sccollege.co.za
044 884 0359

West Coast College:
Engineering Studies
www.westcoastcollege.co.za
022 482 1143

Private Institutions

AAA School of Advertising:
Creative Brand Communication, Marketing
www.aaaschool.co.za
021 422 1800

BHC School of Design:
Interior Design & Decorating
www.designschool.co.za
021 447 7288

Cape Town Creative Academy:
Communication Design, Interaction Design, Audio Visual Studies
www.ctca.co.za
021 201 1150

Cape Town School of Photography:
Photography & Video
www.ctsp.co.za
021 465 2152

Concept Interactive:
Web Design, Interactive Graphics, Print Media
www.conceptinteractive.co.za
021 202 7890

City Varsity:
Film & Television, Multimedia Design, Photography
www.cityvarsity.co.za
021 466 6800

Corner Stone:
Media Studies
www.cornerstone.ac.za
087 755 7755

Design Academy of Fashion:
Fashion
www.daf-academy.co.za
021 448 9379

Design Time:
Interior Design
www.design-time.co.za
021 447 9537

Elizabeth Galloway Academy:
Fashion
www.elizabethgalloway.co.za
021 880 0775

FEDISA:
Fashion
www.fedisa.co.za
021 424 0975

Friends of Design:
Digital Design, Print Design & Publishing, Web Publishing &

Interactive Media, Game Graphics & Multimedia Entertainment
www.friendsofdesign.net
021 402 0303

Inscape College:
Interiors, Built Environment, Graphics, Marketing and Communication Design, Ideation, Interaction, Audio Visual, Fashion, Jewellery
www.inscape.co.za
021 462 6915

Kingsway College:
Civil, Electrical & Mechanical Engineering
www.kingswaycollege.co.za
021 421 9170

Midrand Campus:
Graphic Design
www.mgi.ac.za
021 674 6567

Prestige Academy:
3-D animation, Graphic Design / Visual Communication, Web Design
www.prestigeacademy.co.za
021 949 5056

Red & Yellow School of Wisdom & Logic:
Graphic Design, Art Direction, Illustration, Digital Design, Photography
www.redandyellow.co.za
021 462 1946

Ruth Prowse Art School:
Graphic Design, Illustration, Jewellery

www.ruthprowse.co.za
021 447 2492

SAE:
Animation, Audio, Film
capetown.sae.edu
087 351 0828

Stellenbosch Academy of Design and Photography:
Visual Communication, Photography
www.stellenboschacademy.co.za
021 880 2623

Tag443 College:
Design Foundation, Furniture Design, Architecture, Eco Design
www.tag443.co.za
021 447 2594

The Animation School:
Digital Animation
www.theanimationschool.co.za
0861 822 233

Vega School:
Brand Communication, Brand Management, Digital marketing, Gaming, Design, Photography
www.vegaschool.co.za
021 461 8089

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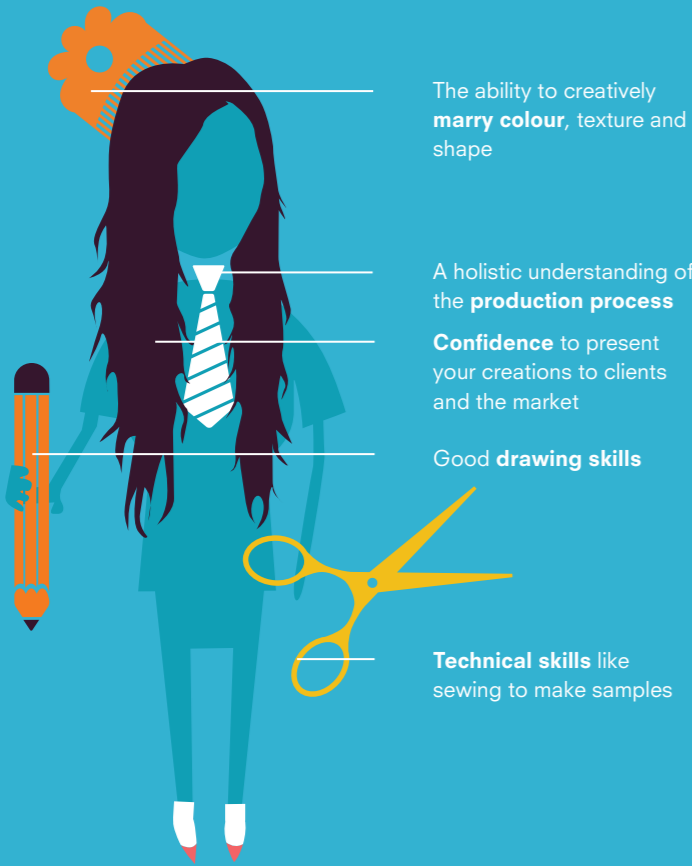non profit company

Fashion Designer

Elements of the Job
- Understanding current and future trends
- Developing ideas through sketching, mood boards and the creation of samples
- Working with a wide variety of people from machine operators, to fabric buyers and planners
- Calculating costs of manufacture, shipping, storage and distribution
- Working with suppliers and manufacturers who may be in different parts of the world

The ability to creatively **marry colour,** texture and shape

A holistic understanding of the **production process**

Confidence to present your creations to clients and the market

Good **drawing skills**

Technical skills like sewing to make samples

A fashion designer fuses fabrics, colour, texture and shape to create interesting designs. There are many different areas within the fashion industry ranging from clothing and accessory design to jewellery design. Related careers include fashion buying and material sourcing. Many of the jobs that exist in this sector are with large retailers, or you can set up your own business and manufacture your own garments. You should have good taste, confidence and sense of personal style.

Designer Maker

Elements of the Job
- Switching between tasks throughout the day, from designing, to making, to managing other people
- Selecting the right materials and production techniques
- Being your own salesperson and marketing your product
- Managing admin like invoices and ensuring you have cash flowing through your business to buy materials
- Dealing with suppliers, manufacturers, retailers and clients

Understanding your **skills and talents,** and using them to create products

The ability to set **personal goals** and remain focused on achieving them

Creative and **business-savvy**

Confidence to believe in your work and realise its **commercial value**

Excellent time management skills to **create, produce, market and distribute** your work

A designer-maker is a creative and entrepreneurial individual who designs and makes products for retail. They stand in the middle-ground between making purely artistic creations and producing commercial work by making limited editions, once off or bespoke products for retail. Many people start small businesses and grow incrementally as demand for their products increases, while others make a choice to remain small. You will need to be a good planner, have both creative and entrepreneurial skills and be able to handle stress as you will be in charge of all elements of your business.

Mechanical Engineer

Elements of the Job
- Plan and prioritise work, and work well under pressure
- Be able to consider the social, cultural, environmental and health/safety aspects
- Work with a lot of detail in a way others will understand
- Work in multi-disciplinary teams
- Use scientific rules and methods to solve problems

Strong **critical thinker**

Enjoy thinking about **complex challenges** and coming up with ideas to solve them

An investigative, **curious** nature

Strong **numeracy skills**

The ability to **solve problems** using rational and creative thought
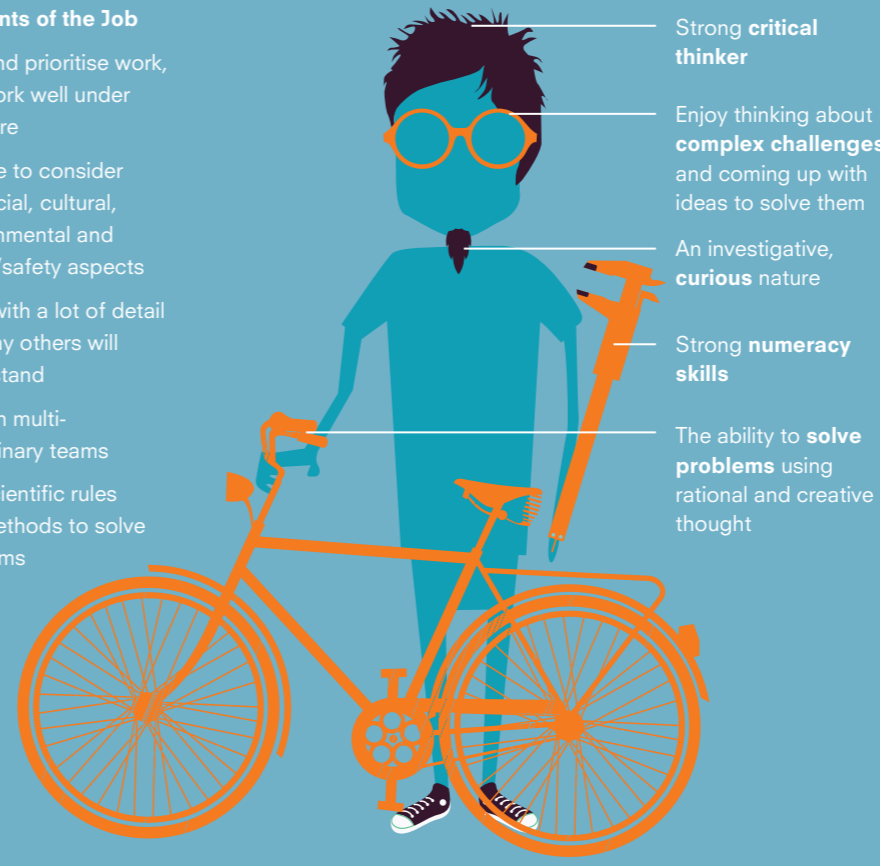
Mechanical engineers combine an understanding of mechanics, mathematics, engineering, science and energy with design and manufacturing to create products that have some kind of motion in them. To put it simply, mechanical engineering deals with anything that moves. They design and manufacture everything from small individual parts to large systems. Mechanical engineering is one of the broadest fields of engineering and offers a variety of career paths. This is a demanding degree with strict entry requirements for university.

Interior Designer

Elements of the Job
- Sourcing different materials from tiles to lighting
- Working closely with clients to understand their needs
- Working within a budget
- Understanding current trends
- Drawing and creating mood boards to communicate to clients

The ability to **function well** under pressure

A sense of **style and confidence**

Strong interpersonal skills to connect with clients and contractors

Ability to **manage multiple projects** at different stages

Highly organised to **manage the detail** of all the different components of a job

An interior designer is involved in the design or renovation of internal spaces, including structural alterations, furnishings, fixtures and fittings, lighting and colour schemes. They are also known as spatial designers. Interior designers work closely with architects and clients to determine how a space should look and feel. Like architecture, most people think interior design is about creativity alone. It's also about being able to listen to clients, understand their needs and translate what they want into reality, as well as knowing how to run a business and manage contractors.

Furniture Designer

Elements of the Job
- Translating your ideas into technical drawings that others will understand
- Working with different manufacturers, locally and overseas
- Understanding the features and limitations of different materials
- Working within production budgets and compromising where necessary
- Trying to think of the most efficient and eco-friendly way of making products

An ability to think about how objects work in **3D**

An **eye for detail** and the ability to refine ideas

An interest in **sustainable** and renewable materials

Enjoying being **hands-on** and making your own prototypes and models

An interest in **different materials** to use in your products, from wood to plastic and fabric
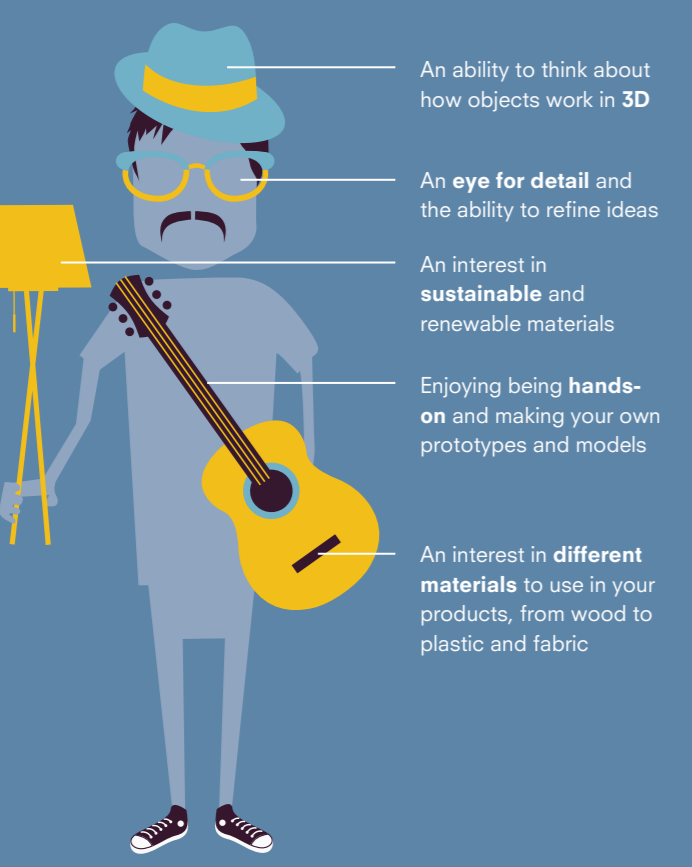
Furniture designers design the objects we use everyday in our homes, at school and in offices such as tables, cupboards and chairs. Furniture not only adds function and practicality to a space, it also adds style and personality. You need to have a love of materials, a strong understanding of the production process and a good sense of form (what makes something look 'right' and appealing). Some furniture designers set up their own brands and produce their products independently while others go and work for architects or retailers.

Art Director

Elements of the Job
- Working with others in creative teams
- Working with the client to understand their product or service
- Coming up with creative concepts to sell products and services
- Collaborating with photographers, illustrators and filmmakers to create visuals for adverts
- Understanding your client's competition and how to make them stand out from the crowd

Ability to think creatively about **everyday things**

Strong **visual awareness** and design skills

Ability to **work under pressure,** prioritise and meet deadlines

Ability to **understand a client's business** and position it within the market

Ability to work **well with people,** budgets and egos

Art directors work in advertising agencies. The aim of advertising is to create interest and drive sales of products and services. Advertising can therefore make the difference between business success and failure as it educates buyers about the benefits and features of a product or service. Within advertising agencies work is usually split between marketers who develop the marketing strategy, art directors and designers who work on the visual concepts and copywriters who work with words and language. You should be creative and business-minded. The advertising industry is highly competitive and suited to energetic and ambitious individuals.

Systems Designer

Elements of the Job
- Analyse systems, processes and structures
- Think about how systems can be improved, while understanding how they currently function
- Work on a wide variety of contexts from distribution systems to software
- Research how people interact with digital devices, each other and the broader environment
- Work with multi-disciplinary teams over long periods of time

Think about complex systems and see patterns

See the big picture but also understand the smaller links

An interest in **human psychology**

A love of **detail**

An interest in how and why **processes** work
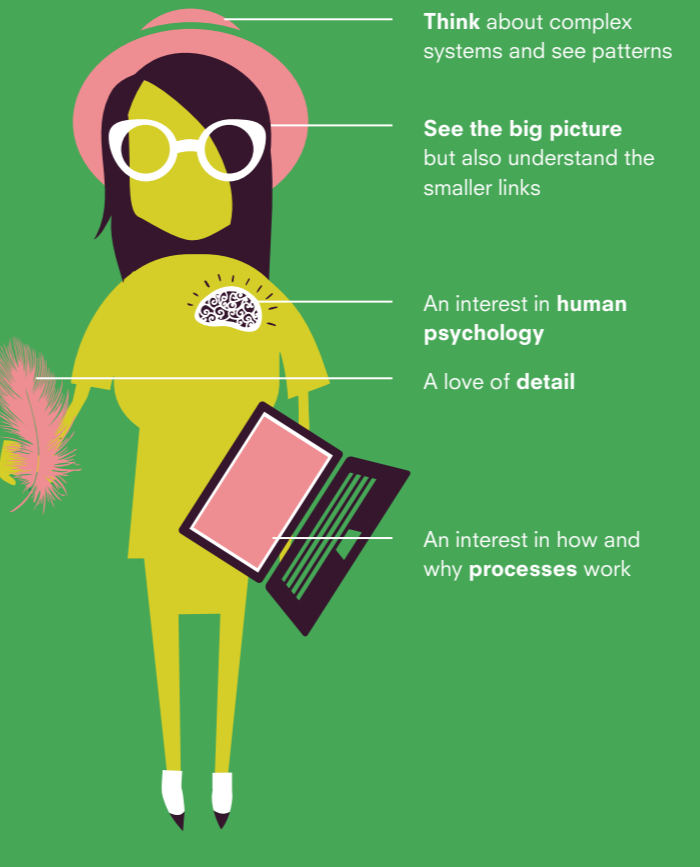
Systems design is about understanding how complex systems work and then improving these systems or designing new ones. Systems design is used in disciplines from urban planning to computer science: wherever there are complex systems and processes at work. Systems designers create frameworks to manage complexity. A good example would be the design of a transport system in a city. Systems designers can work with networks, computer systems and websites.

Graphic Designer

Elements of the Job
- Answer clients' briefs through visual creations
- Work with different production techniques and in different media, from print to digital
- Work with other creatives like photographers, programmers, copy-writers and illustrators
- Research and develop an understanding of your client's business from a strategic level
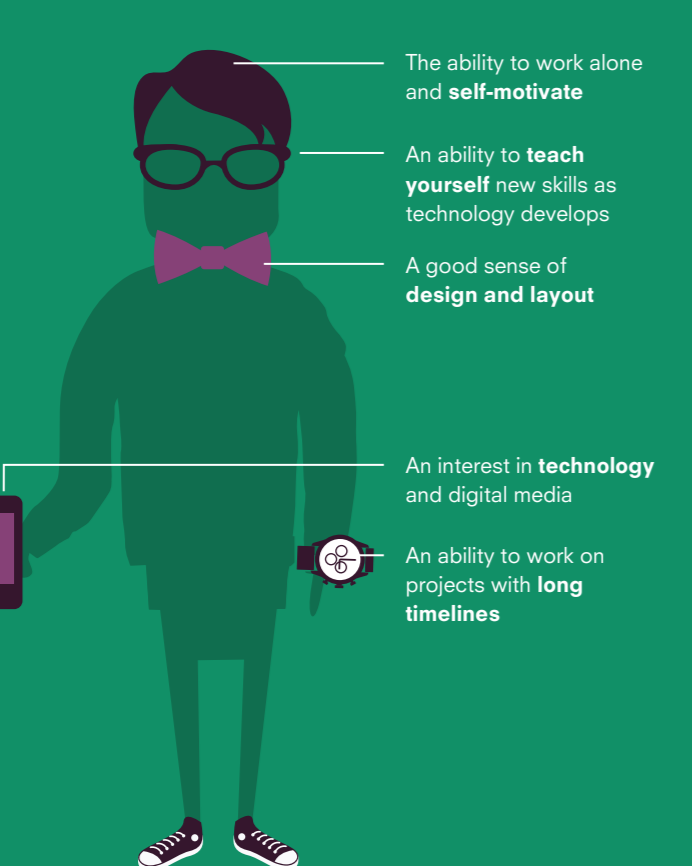- Take a project from concept, through production to final product

A strong **rational thinker** with the ability to create simplicity, order and hierarchy from complexity

Flexibility and a willingness to compromise and work with clients

Strong organisational and **planning skills**

An understanding of **branding,** and the ability to translate concepts into visual messages

Ability to **understand the client's business** and what they require (over what you want to design)

Graphic designers create visual concepts by hand or computer to communicate ideas that inspire, inform, or captivate consumers. They combine image and text to appeal to a specific target audience and are skilled at conveying different feelings and emotions through design. As a graphic designer you need to be a visual thinker in order to be able to translate your client's ideas into visual creations. There are many related careers like animation, illustration, website design and art direction. Many graphic designers set up their own businesses or go and work in design studios or advertising agencies.

Web Designer

Elements of the Job
- Understand your client's needs and translate these into a website
- Plan how users will navigate a website
- Programme and design interchangeably
- Keep up with new developments in technology
- Help clients to maintain and manage their websites

The ability to work alone and **self-motivate**

An ability to **teach yourself** new skills as technology develops

A good sense of **design and layout**

An interest in **technology** and digital media

An ability to work on projects with **long timelines**

Web designers are responsible for creating websites, apps and user interfaces. Web design embraces many of the same principles as graphic design but in the digital realm. Websites are made up of a 'back-end' and a 'front-end'. Web designers mainly work on the front-end, which is the part of a website that users see. The back-end is all the programming that makes the site function. Some web designers handle both the front and back end. Web designers need to fuse technical knowledge with creative expertise to create an easy to use, interactive product.

Gaming Designer

Elements of the Job
- Using your creativity to bring digital worlds to life
- Using storytelling techniques and game-theory when creating concepts
- Spending long hours creating computer graphics and animation
- Working with other team members to achieve goals
- Testing the game with user groups

The ability to work on **long-term projects**

Good **storytelling** and narrative skills

A vivid **imagination**

A passion for **gaming** and IT

A **strong work ethic** to work incrementally towards an end goal

Gaming design is a broad field bringing together teams of programmers, illustrators, project managers, writers and musicians to create entire 3D worlds. There are three main components to game design: concept development, the creation of the graphics in the animation, and programming of the game. A lead designer will set up the storyline and concept for the game. A team of designers is then responsible for creating all the elements of the game-world like characters, scenes, buildings, cars and props. A team of animators will then add motion to these elements.

Architect

Elements of the Job
- Managing multiple teams of contractors working on a project
- Communicating your vision clearly to clients, colleagues and builders through detailed drawings and documentation
- Working with large budgets under time pressure
- Selecting appropriate design solutions and materials
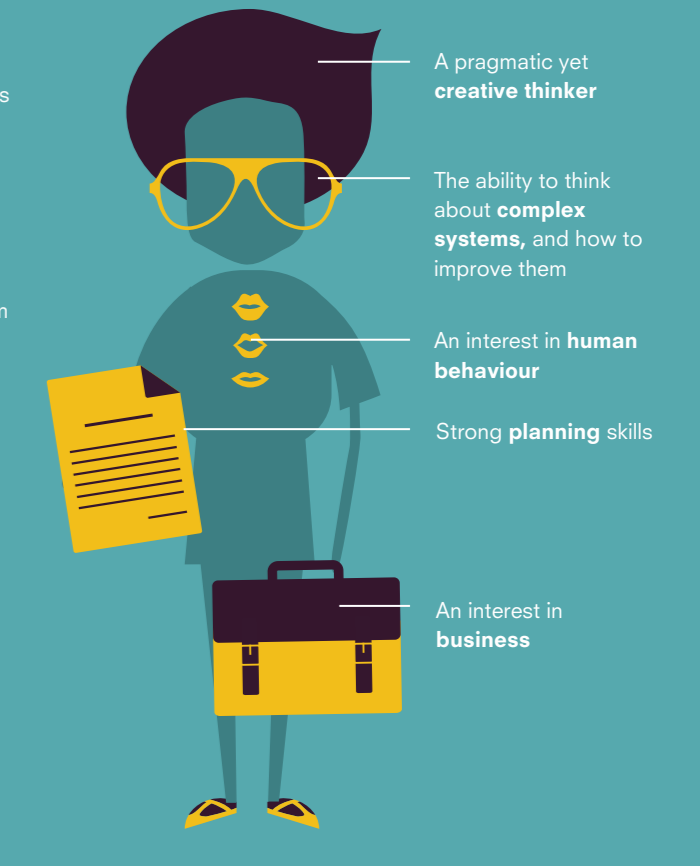- Understanding and interpreting the history, culture and context of the environment you are working in

Combining **analytical and creative thought**

Drive and motivation to work on projects that have long timelines

Good **negotiation and mediation** skills to solve building issues

An interest in **green/sustainable** technology and materials

A good grasp of **composition, balance, flow and form**

Architects play an important role in shaping the urban world around us. They plan the way a building looks, how it works, how it fits in with its surroundings, and the materials used to construct it. A career in architecture brings together creativity, problem-solving, environmental awareness, engineering, technology and business. A large part of what an architect does is project management. There are strict subject and mark requirements needed for an architectural degree.

Service Designer

Elements of the Job
- Working in different contexts, from businesses to NGOs
- Carrying out hands-on research with customers
- Quickly learning about a company's systems to plan how to improve them
- Writing reports showing your research findings and recommendations
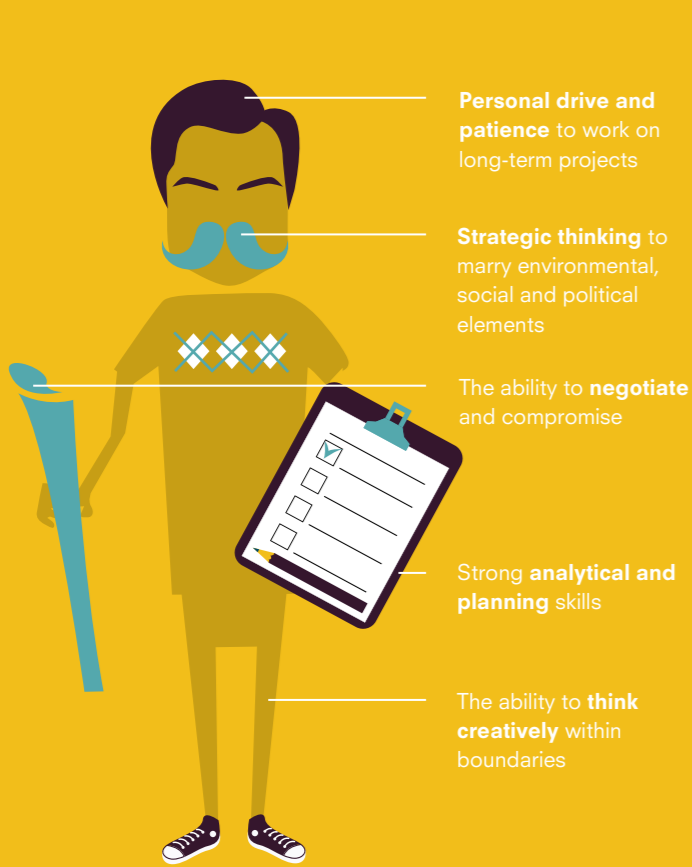- Taking photos and keeping journals to document how users experience a brand or organisation

A pragmatic yet **creative thinker**

The ability to think about **complex systems,** and how to improve them

An interest in **human behaviour**

Strong **planning** skills

An interest in **business**

Service design is a relatively new discipline that focuses on how people experience a service or a brand. Service design puts the user at the centre of the design process, making services as user-friendly as possible to provide the best quality customer experience. Service design asks: What is the customer experience? How can it be improved? Service designers aim to identify and improve the interaction points between a customer and a brand or organisation. Service design is still new in South Africa but is beginning to be used by municipalities and businesses.

Urban Designer

Elements of the Job
- Thinking creatively about how cities are used
- Possibly working in politically-sensitive areas
- Thinking about systems and relationships that exist in large areas
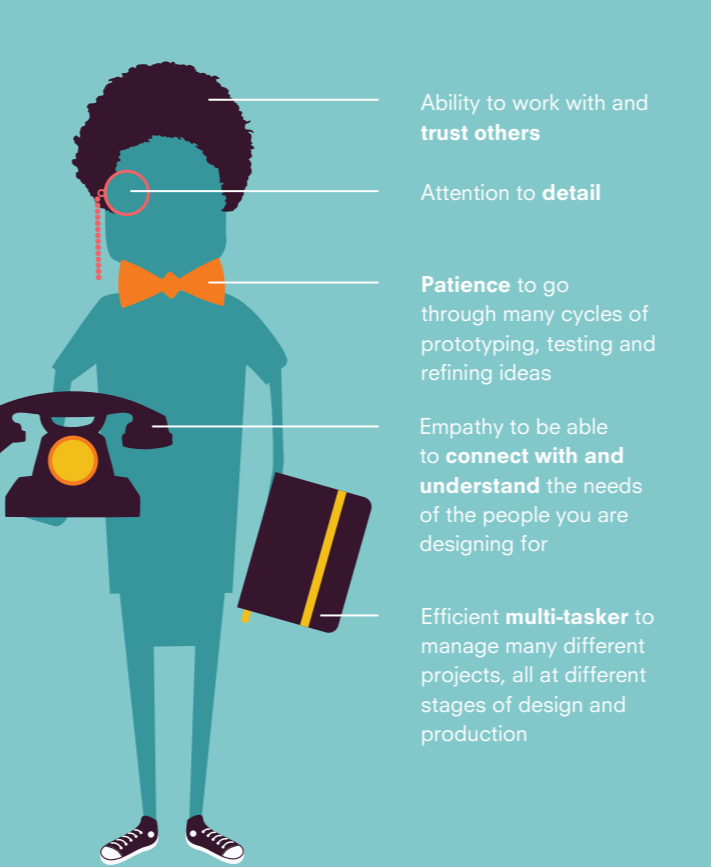- Designing for current and future needs
- Understanding human behaviour

Personal drive and patience to work on long-term projects

Strategic thinking to many environmental, social and political elements

The ability to **negotiate** and compromise

Strong **analytical and planning** skills

The ability to **think creatively** within boundaries

An urban designer shapes the physical setting for life in cities, towns and villages. They plan places and precincts (buildings, spaces and landscapes). Urban design is the art of making places, and is essential in creating community identity. It involves integrated planning and design. Urban designers take into account services, transport routes, public spaces and movement flows for people and vehicles. You could work in the public sector (for government) or in the private sector (for a consultancy or a developer). Related fields include: town and regional planning, landscape architecture and architecture.

Industrial Designer

Elements of the Job
- Taking ideas from concept to prototype, through to final design
- Sketching, modelling and making prototypes digitally and in real life
- Have a good knowledge of locally available materials, what can be made with them and costs involved
- A good technical knowledge of different production methods
- An ability to fuse creativity and business-thinking

Ability to work with and **trust others**

Attention to **detail**

Patience to go through many cycles of prototyping, testing and refining ideas

Empathy to be able to **connect with and understand** the needs of the people you are designing for

Efficient **multi-tasker** to manage many different projects, all at different stages of design and production

Industrial and product designers create most of the everyday objects in our lives, from TV sets to knives and forks, cellphones and the ATM you withdraw money from. As a product/industrial designer you can choose to specialise in a specific area such as automotive design, the design of medical equipment or the design of electronic goods like sound systems and household appliances. You need to have an understanding of the full cycle of product development, from coming up with ideas, to designing the product on the computer, thinking about the kinds of materials you can use as well as where it will be made and how it will be distributed and then disposed of after it has been used.

Civil Engineer

Elements of the Job
- Working on interesting infrastructure projects aimed to improve quality of life
- Project management to keep teams of other professionals on time and on budget
- Using varied skill-sets to solve problems
- The satisfaction of seeing a project develop from a plan to reality
- Working with others to achieve a big vision

Enjoyment of working through **complex challenges**

Good **3D visualisation** skills

Ability to **communicate** with many different people

Strong maths and statistics combined with a good visual sensibility

A **strong leader** who can manage others

Civil engineers use their skill in science, mathematics and technology to design and build major infrastructure projects like roads, airports, tunnels, dams and bridges. Civil engineers must have strong leadership skills to work with teams of surveyors, construction managers, technicians, contractors, architects, urban planners and transportation engineers. As government commissions most large infrastructure projects, they need to work closely with local officials too. Civil engineers use good visualisation skills to see how complex components will come together and can analyse complex problems, seeing the strengths and weaknesses of possible solutions, thereby identifying the best way forward.

Textile Designer

Elements of the Job
- Working with clients, technicians, marketing staff and buyers
- Understanding the technical side of production, and an ability to design with this in mind
- Working with colour, texture, form and pattern to create a desirable product
- Experimenting with new production techniques and fabrics
- Creating new designs that develop and build on existing product ranges

An interest in **fabrics and materials**

Strong **2D drawing skills**

A willingness to experiment and play with **colour, texture, form and pattern**

A knowledge of **techniques** such as knitting and weaving are useful

An ability to understand how your designs work in a **larger context** like in an interior or a fashion range

Textile designers create patterns and designs for materials and fabrics. These fabrics may be used in home-ware products such as cushions and blinds, clothing ranges and accessories. Textile designers can work for large companies where their designs are made by high-tech machines, or they can operate independently using small-scale production techniques such as hand-printing and silk screening. Many small local companies exist and are successfully selling their products to local and international clients.