Occupational Certificate

Software Developer

SAQA ID: 118707 | NQF Level 5
Learnership. Reg. No. 32Q320167302205

Online Learnership Programme

Red & Yellow
CREATIVE SCHOOL OF BUSINESS
HONORIS UNITED UNIVERSITIES

Red & Yellow has been teaching **business leaders to think creatively** since 1994

Programme Overview

If you love creating, and you would like to apply your passion to the infinite opportunities that software development brings for creating innovative and useful products, then this programme is for you! In this comprehensive programme, you will learn the essential skills and in-depth knowledge to excel in the ever-evolving tech industry.

Begin with a solid foundation in computing systems and desktop software, then advance to specialised topics like automated web scraping, HTML5 development, and software design using UML. You'll gain hands-on experience with open-source frameworks and libraries, learn to manage data effectively with and without MVC, and understand the software development life cycle.

Our course emphasises practical skills in programming languages, algorithms, and security, ensuring you're well-prepared for real-world challenges. You'll also explore crucial aspects of governance, legislation, and ethics in technology, and stay ahead with insights into 4IR and future skills. Through engaging modules and real-world applications, you'll build the expertise needed to create innovative software solutions and thrive in various development environments. By the end of the course, you'll be ready to tackle complex projects, contribute to cutting-edge technologies, and drive your career forward in the world of software development. Get ready to turn your coding dreams into reality and lead the way in tech innovation!

Programme Overview

Programme outcomes

1. Interrogate the specification and problem and interpret it into code and articulate in writing.

2. Build a logical flow using industry standard frameworks and methodologies to propose possible solutions to business challenges to meet both functional and technical requirements.

3. Programme effectively using a suitable programming language to develop new solutions and update existing solutions.

4. Test and maintain software and recommend improvements to ensure strong functionality and optimisation to meet both functional and technical requirements.

5. Function effectively, efficiently, and ethically in the workplace to achieve company and team goals and targets.

What do software developers do?

A Software Developer designs, codes, and tests computer programs and apps. They bring ideas to life, ensuring software functions smoothly and meets user needs.

This programme is perfect for

Aspiring software developers

Hardware requirements
Intel core 5 laptop with 8 GIG RAM

Software requirements

- Integrated Development Environment such as Visual Studio (free of charge) (to run python etc, also free.)

- AWS for cloud

- MS Office 365

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The Programme Details

Entry requirements
NQF 4 qualification

Duration
2 years

Time commitment
15 hours / week

Qualification
Occupational Certificate: Software Developer
NQF Level 5 | SAQA Qualification ID: 118707
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Price
R59 000 per annum

Assessment strategy
Note that you will complete formative and summative assessments for every module and you will write a final external integrated summative assessment at the end of this programme.

Programming languages taught
- HTML
- Javascript
- C++
- Python
- SQL, Java, VB, and others

The Learning Journey

Computers and Computing Systems

Dive into the essentials of computing systems with this module, where you'll explore hardware, software, and their interactions. Understand the architecture of computers, operating systems, and how they form the backbone of technology. Build a strong foundation in computing principles to support advanced software development skills.

Desktop and Professional Software to Communicate and Visualise Information

Master the use of desktop and professional software for effective communication and data visualization. Learn to create impactful reports, presentations, and visuals that convey complex information clearly. Enhance your productivity and presentation skills with practical software applications.

Automated Web Scraping As A Data Source

Unlock the power of automated web scraping to extract valuable data from the web. These modules cover techniques and tools for collecting, processing, and analyzing data efficiently. Learn to harness web data for insightful decision-making and advanced analytics

Logical Thinking And Basic Calculations

Develop your logical reasoning and basic calculation skills essential for problem-solving in software development. These modules focus on enhancing your ability to think critically and perform fundamental calculations to support algorithm design and programming tasks.

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The Learning Journey

Computing Theory

Explore key concepts in computing theory, including algorithms, data structures, and computational models. These modules provide a theoretical foundation to understand the principles behind software operations and development, preparing you for more advanced programming challenges.

Software Development with HTML 5, Open-Source Frameworks and Libraries

Immerse yourself in software development with HTML 5 and open-source frameworks. Learn to build dynamic, responsive web applications using the latest technologies. These comprehensive modules cover essential tools and libraries to enhance your development skills and project efficiency.

UML as Standard Modeling Language for Software and Systems Development

Master UML (Unified Modeling Language) to effectively design and document software systems. These modules teach you to create clear, standardized diagrams that facilitate communication and ensure successful software design and development.

Obtaining, Querying, Manipulating and Presenting Data with and Without MVC

Gain expertise in managing data using both MVC (Model-View-Controller) and non-MVC approaches. Learn to obtain, query, manipulate, and present data efficiently, ensuring effective data management and integration in your software projects.

The Learning Journey

Software Development Life Cycle, Programming Languages, Algorithms and Security

Understand the software development life cycle and delve into programming languages, algorithms, and security practices. These modules cover the entire development process, from initial design to deployment, emphasizing best practices for coding and safeguarding applications.

Introduction to Governance, Legislation and Ethics

Explore the crucial aspects of governance, legislation, and ethics in technology. These modules provide a foundation in legal and ethical standards, ensuring you navigate the tech landscape responsibly and comply with industry regulations.

4IR and Future Skills

Prepare for the Fourth Industrial Revolution (4IR) by exploring emerging technologies and future skills. This module covers trends and innovations shaping the future of work, equipping you with the knowledge to stay ahead in a rapidly evolving tech environment.

Design Thinking Principles for Innovation

Unlock your creative potential with design thinking principles. These modules focus on innovative problem-solving approaches to develop user-centered solutions and drive creativity in software design and development.

High–Impact Learning Tools

Why Red & Yellow has a reputation for producing graduates that can "hit the ground running"

Applicable and practical assignments

- Designed to test your ability to translate the theory into practical implementation for successful outcomes.

- Geared so that you can apply what you're learning to your everyday work life, and your specific business challenges.

- Providing an incredible opportunity to prove your value, improve your performance, and impress your colleagues

Engaging content in digestible modules
Enriched with infographics, videos, useful links to valuable resources, case studies and fun activities to deepen and entrench your learning

Personalised Feedback
Recommendations and suggestions from subject-matter experts, tailored to your individual strengths and opportunities for personal improvement

A dedicated team
Available on email, phone and the online forum to support, encourage and assist you. Think of them as your "virtual" support crew whose only focus is to help get you over the finish-line

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Our Human Touch

Learning you won't get anywhere else!

The reality is that AI and robots will replace many of the jobs we know today. The likes of NASA and Google are already ahead of the game in their early recognition of the importance of "soft" skills.

Our courses and programmes are designed to prepare humans for this unknown world, by combining topic-specific knowledge and know-how, as well as a selection of the 10 uniquely human skills we've identified that will set us apart from "robots"

Conflict Resolution	Social Intelligence
Creative Thinking	Critical Thinking
Adaptability	Persuasion
Leadership	Mindfulness
Empathy	Negotiation

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The Red & Yellow Difference

Online learning and the "human touch" you'll get from us

Real-world insights from experts

You'll get "insider" access to exclusive videos from industry leaders and subject-matter experts - giving you tips, techniques and learnings invaluable to bringing your online learning to the real world. Our connection to industry is something we're incredibly proud of, and it's what sets us apart from the other institutions.

A team of humans dedicated to your success

A team of real, live people (not bots) is allocated to every course. The Course Coordinators' mandate is to cheer you over the finish line, keep you motivated, and ensure you have the best, most value-adding learning experience. And our knowledgeable team of Instructional Designers and subject matter experts are on standby for topic-specific questions.

The Red & Yellow Difference

Online learning and the "human touch" you'll get from us

A trusted signal on your CV

We take our role – in equipping you with everything needed to grow your career – seriously. Our online courses are intended to put you through your paces, stretch your mind, and equip you with fundamental skills. It's the reason business leaders regard a qualification from Red & Yellow as the mark of a competent, capable individual, able to add value from day one – with the theoretical knowledge, the practical know-how and the human skills essential for future success.

Original, carefully curated and relevant content

Rather than opting for the easier option of reselling content (created by others), we develop our courses internally – often roping in industry experts who run successful organisations – to ensure what you learn is both current and relevant to the South-African context. Courses are designed in response to market demand or skills gaps as they arise in this rapidly changing world.

Courses and programmes designed to prepare humans for this unknown world, by combining topic-specific knowledge and skills, with the most critical 10 uniquely human skills.

While online learning offers time-flexibility and the ability to study anywhere in the world; it can also feel a little lonely at times.

Red & Yellow is obsessive about offering a 'virtual classroom' learning experience you won't get anywhere else – combining human interactions, input from our academic team and industry gurus, with all the convenience you need.

Have questions?

Give one of our amazing Business Relationship
Managers a call at 087 227 3283 or pop us an email
corporatetraining@redandyellow.co.za

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