

INDEPENDENT CONTRACTORS (EXTERNAL MARKERS) SCHOOL OF ECONOMICS AND FINANCIL SCIENCES COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES UNIVERSITY OF SOUTH AFRICA DEPARTMENT: DECISION SCIENCE

REFERENCE: CEMS/DSC/30/2024

Assessment is an integral part of curriculum development as outlined in the Curriculum Policy. During curriculum development, an assessment strategy is developed that is aligned to the ODeL Policy and strategy of UNISA. Assessment can have different focuses, namely to:

- improve the quality of students' learning experiences by focusing on significant knowledge, skills, attitudes and values, and providing motivation to work through the material through tasks and feedback, known as assessment for learning.
- b) focus on the ability to transfer knowledge to new contexts and to apply knowledge in specific contexts in line with the NQF level descriptors and other taxonomies of learning.
- c) focus on programmatic and graduate attributes and critical cross-field outcomes in assessment of learning.
- d) make academic judgements related to diagnostics, placements competence, progression and/or qualification completion; and as a feedback mechanism to improve curricula, known
 as assessment of learning; and to
- e) create opportunities for students to engage with the content, with their context, with the lecturer and with fellow students (Unisa Assessment Policy, 2011).

The Department of Educational Foundations is inviting suitable applicants for providing assessment services to be appointed as independent contractors (markers) on a yearly basis. The purpose of this positions is to appoint competent and suitable candidates to complete and execute assessment task professionally and ethically align to the Assessment Policy and Guidelines.

Requirements: Decision Science

 Applicable and relevant equivalent to NQF level 9 (MCom/MSc/MTech/Med) OR NQF level 10 (e.g. Ph.D/DEd/DPhil/DTech) with specialization in Applied Mathematics/Mathematics/Statistics and Computer Science or any related disciplines.

Duties:

- Complete and execute assessment task professionally
- Comply and adhere to all Unisa tuition, assessment and examination and plagiarism policies and guidelines
- Act in the ethical and professional manner dealing with all assessment tasks
- Execute duties as stipulated in contract and task agreement
- Marking of assessment tasks fairly and consistently
- · Meet deadlines of allocated assessment task
- Attend markers meeting and submit marking reports timeously
- Maintain confidentiality of all assessment tasks

Knowledge, skills and abilities

- Basic knowledge of the discipline applying for
- Basic knowledge of assessment and assessment practices
- · Basic knowledge of marking and procedures
- · Basic knowledge of constructive feedback on assessment tasks
- Basic knowledge of academic dishonesty and plagiarism
- Knowledge of teamwork/leadership skills
- Good interpersonal and communication skills (listening, speaking, reading and writing)
- Must be honest / ethical and show empathy when required to mark assessment tasks
- Must have good problem-solving and decision-making skills
- Must be service orientated (Actively looking for ways to help and support lecturer or students)
- Must have good time management skills
- Ability to resolve conflict and maintain confidentiality of all assessment tasks
- Ability to work under pressure with adherence to deadlines

Recommendations:

- · Computer and Internet skills
- · Have own desktop computer or laptop and internet connectivity (no computers or data bundles will be provided)
- Advanced communication skills and proficiency in English
- Digital literacy skills competent in ICT and online learning environments
- Experience in online marking tools or software or LMS (Moodle will be an advantage)
- · Commitment to marking and meeting deadlines for all assessments
- Friendly, patient, and sensitive to a diversity of students

To apply please fill the application form by clicking this link https://forms.office.com/r/MTiUFNYK1u and submit the following documents via e-mail.

- 1) An application letter indicating willingness to mark assignments and/or exam scripts for any of the modules listed below.
- 2) Comprehensive **UPDATED** and signed curriculum vitae (most recent)
- 3) Only a certified copy of the **HIGHEST** qualification as per requirement
- 4) Certified copy of ID/Passport and valid visa

Please write the module code of the module you are applying for on the subject line of the e-mail.

Note: The required documents should be submitted as a single file (one PDF) to the email provided below.

Email the supporting documents to cemsmakers@unisa.ac.za and write the module code as a subject.

Assumption of duty: The candidates will have to undergo an interview (either face-to-face or Microsoft Teams) and online Moodle training sessions. Completion of the prescribed training on various aspects of Marking on the Moodle platform is compulsory.

Closing date: 17 October 2023

Independent Contractor (MARKER) positions are available in the modules listed in the Departments.

Module Code	Module Name	Purpose of module	Department	Number of Markers Required
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BNU1501	Basic Numeracy	Solve every day mathematical and financial problems by applying basic calculations.	Decision Sciences	5
DSC1520	Quantitative Modelling 1	Apply basic mathematical modelling and computational skills in the business world.	Decision Sciences	1
DSC1630	Introductory Financial Mathematics	Solve problems involving for interest rates, annuities, amortisation stock pricing andcapital budgeting.	Decision Sciences	1
DSC2602	Rational Decision Making	Solve problems from selected topics in operations research such as decision analysis,project management, network modelling, as wel as statistical quality management.		1
DSC2604	Financial Modelling	Solve decision-making problems in the financial environment.	Decision Sciences	3
DSC2605	Linear Mathematical Programming	Model and solve linear optimisation problems.	Decision Sciences	1

Nonlinear Mathematical Programming	Model and solve optimisation problems with techniques of differential Decision Sciences calculus andnonlinear programming	1
Applied quantitative modelling	Apply detailed knowledge and specified skills of data science in the field of Econometrics.	1
Optimisation of Resources	Formulate, solve and analyse the results of linear, goal and integer Decision Sciences programmingmodels.	1
Simulation	Use relevant theory for structuring and solving simulation models in Decision Sciences practice.	1
Models for Strategic Decision-Making	Apply relevant criteria decision-making to the problem of selecting Decision Sciences one from a number of contenders.	1
Financial Risk Modelling	Apply principles and methodologies for the treatment of uncertainty Decision Sciences and risk inFinancial Modelling.	1
	Applied quantitative modelling Optimisation of Resources Simulation Models for Strategic Decision-Making	Mathematical Programming Applied quantitative modelling Applied quantitative modelling Optimisation of Resources Simulation Use relevant theory for structuring and solving simulation models in practice. Models for Strategic Decision-Making Apply relevant criteria decision-making to the problem of selecting one from a number of contenders. Apply principles and methodologies for the treatment of uncertainty Decision Sciences Financial Risk Apply principles and methodologies for the treatment of uncertainty Decision Sciences

Selected topics for Operations Research	Apply the philosophy and methods of Operations Research. Decision	Sciences 1
Mathematical Modelling	Apply mathematical models to analyse and solve real-world Decision problems in economic and financial contexts.	Sciences 1
Forecasting	Develop an understanding and knowledge of the theory of Decision forecasting models and itsapplications in real world situations.	Sciences 1
Stochastic Modelling	Acquire an understanding and knowledge of the introductory Decision theories of stochastic modelling and their applications in Markov chains, counting processes, queues andreliability theory.	Sciences 1
Discrete Optimisation	Acquire an understanding and technical ability in optimisation and its Decision applications.	Sciences 1
Introduction to Heuristics	Acquire an understanding and technical ability in heuristic Decision methodologies and meta-heuristic computations.	Sciences 1
	Operations Research Mathematical Modelling Forecasting Stochastic Modelling Discrete Optimisation	Operations Research Mathematical Apply mathematical models to analyse and solve real-world Decision problems in economic and financial contexts. Forecasting Develop an understanding and knowledge of the theory of Decision forecasting models and itsapplications in real world situations. Stochastic Acquire an understanding and knowledge of the introductory Decision theories of stochastic modelling and their applications in Markov chains, counting processes, queues andreliability theory. Discrete Optimisation Acquire an understanding and technical ability in optimisation and its Decision applications.

DSC4825	Financial Modelling 1	Understand the characteristics of derivatives; be able to model and Decision Sciences price derivatives and understand how futures and options can be used to manage profits and reducerisks.	1
DSC4826	Financial Modelling 2	Construct Markowitz efficient frontiers, arbitrage arguments, martingale measures, discrete-time (Cox-Ross-Rubinstein) and continuous-time pricing models for share, prices and derivative values, Black-Scholes formula and characterise stopping timesfor American options.	1
DSC4828	Applied Data Science	Basic mathematical, statistical and computer concepts of data Decision Sciences analytics and itsapplications.	2
DSC4830	Research project	Technical writing skills and the presentation of research results in a Decision Sciences scientific manner.	2

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