NATIONAL CERTIFICATES (VOCATIONAL)

SUBJECT GUIDELINES

FREIGHT LOGISTICS

LEVEL 2

IMPLEMENTATION: JANUARY 2012
INTRODUCTION

A. What is the subject Freight Logistics Level 2 about?

Freight Logistics is a subject focusing on the overall transport and supply chain disciplines. The structure of a freight logistics organisation, its broad responsibilities, outputs, operations and various departments is presented to students with the intention to gather knowledge on and create an interest in the transport industry, with the focus on freight logistics as a possible career pathway.

B. Why is Freight Logistics Level 2 as a subject important in the learning programme?

Freight Logistics is a practical subject which generally applies to the South African economy and supply chain. It links with and would best be understood when studied in conjunction with the other subjects, namely Transport Economics and Transport Operations.

C. How do the Learning Outcomes link with the Critical and Developmental Outcomes?

The Learning Outcomes provide a platform for students to achieve the following Critical Cross Field Outcomes and Developmental Outcomes:

- Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made. Problem solving is a daily responsibility in the Freight Logistics environment.
- Work effectively with others as a member of a team, group organization, community. Most logistics activities take place within team context.
- Organise and manage oneself and one's activities responsibly and effectively. The logistics environment dictates a substantial amount of responsible self management.
- Collect, analyse, organize and critically evaluate information. Effective use of information is of critical importance.
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation. These skills are essential in the practical application of logistics principles.
- Use science and technology effectively and critically, showing responsibility towards the environment and the health of others. Freight Logistics is an industry that requires a very strong responsibility towards the environment.
- Demonstrate an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation. Freight Logistics is a set of interrelated systems and will illustrate the fact that problem solving contexts do not exist in isolation.
- Contribute to the full personal development of the student. Freight Logistics will enable the student to practically apply knowledge.
D. Which factors contribute to achieving the Learning Outcomes?

In general the student should have an interest in the transport industry and makes a conscious career choice for this subfield. The following abilities, interests and talents of learners will contribute to success in this subject:

- Good communication, reading and writing skills
- Attention to detail
- Basic numeracy skills
- Hard work and dedication.
FREIGHT LOGISTICS LEVEL: LEVEL 2

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1 DURATION AND TUITION TIME

This is a one-year instructional programme comprising 200 teaching and learning hours. The subject may be offered on a part-time basis provided the student meets all the assessment requirements.

Students with special education needs (LSEN) must be catered for in a way that eliminates barriers to learning.

2 SUBJECT LEVEL FOCUS

- The subject introduces students to the terminology nature, role and importance of the supply chain management of the freight logistics industry in South Africa.
- The key processes, functions and activities in freight logistics are identified and explained to understand technical and warehousing clusters in the logistics environment.
- Subsidiary elements and activities in freight logistics and their interrelation are described.
- Key financial and costing parameters and principles within the freight logistics environment are described.
- Organisational structures of freight logistics operations and possible career opportunities and pathways in the industry are described.

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EXIT LEVEL OUTCOME 1

- Explain the practice and environment of the freight logistics industry in South Africa

ASSOCIATED ASSESSMENT CRITERIA

- Key concepts and principles of the freight logistics industry are defined and explained.
- The size and scope of the freight logistics industry in South Africa is described.

EXIT LEVEL OUTCOME 2

- Describe the key processes and functions in freight logistics with reference to warehousing, distribution and subsidiary services.

ASSOCIATED ASSESSMENT CRITERIA

- The relationship between logistics, outsourcing and value add in the freight logistics environment is described.
- The relationship between warehousing, distribution and the technical functions performed in a logistics environment is described.
- The importance of warehousing, plant and warehouse site selection is described.
- The importance of service support and packaging in the freight logistics environment are described.
- The key freight logistics elements are explained in terms of the interrelationship between the elements and activities.

EXIT LEVEL OUTCOME 3

- Recognise and use key financial concepts and perform cost calculations within a freight logistics environment.

ASSOCIATED ASSESSMENT CRITERIA

- The key financial concepts in freight logistics are recognized and used.
- The income and expense streams and the effects of the various outputs of each division on the freight logistics operation are described.
EXIT LEVEL OUTCOME 4

- Different costs are explained and cost ratios are calculated.
- Explain career pathways and opportunities available in the freight logistics industry by making reference to traits and skills required to pursue a career in freight logistics.

ASSOCIATED ASSESSMENT CRITERIA

- The structure of a medium to large freight logistics organisation, the broad responsibilities and outputs of various departments in a logistics operation is described.
- The routes or avenues from entry level to management positions and the elements and personal traits required for promotion to the next level in the freight logistics industry is explained.

3 ASSESSMENT REQUIREMENTS

3.1 Internal assessment (50 percent)

3.1.1 Theoretical Component

The theoretical component ranges from 40-60 percent of the internal assessment.

Internal assessment of the theoretical component of Freight Logistics NQF Level 2 will take the form of observation, class questions, group work (informal group competitions with rewards), group and individual discussions with students, class tests, topic tests, semester tests and internal examinations. Daily observation can be done of previous day’s lesson by making use of class questions, group or individual discussions and class tests.

Assignments, case studies and tests can be done at the end of a topic. Tests and internal examinations must form part of internal assessment.

3.1.2 Practical Component

The practical component ranges from 40-60 percent of the internal assessment.

Practical components include applications. All practical components must be indicated in a Portfolio of Evidence (PoE).

Internal assessment of the practical component in Freight Logistics NQF Level 2 takes the form of assignments, practical exercises, case studies and practical examinations in a simulated business environment.

Students may complete practical exercises daily. Assignments and case studies can be completed at the end of a topic. Practical examinations can form part of internal practical assessment.

- Some examples of practical assessments include, but are not limited to:
  A. Presentations (lectures, demonstrations, group discussions and activities, practical work, observation, role-play, independent activity, synthesis and evaluation)
  B. Exhibitions by students
  C. Visits undertaken by students based on a structured assignment task
  D. Research
  E. Task performance in a “Structured Environment”

- Definition of the term “Structured Environment”

Structured environment for the purposes of assessment refers to an actual or simulated workplace, or workshop environment. A practicum room would be advisable on each campus for students to do practical assessments.
Evidence of practical assessments

All evidence pertaining to evaluation of practical work must be reflected in the students’ Portfolio of Evidence (PoE). The tools and instruments used to conduct these assessments as well as the evidence must be contained in the Portfolio of Evidence (PoE).

3.1.1 Processing of internal assessment mark for the year

A year mark out of 100 is calculated by adding the marks of the theoretical component and the practical component of the internal continuous assessment (ICASS).

3.1.2 Moderation of internal assessment mark

Internal assessment is subjected to internal and external moderation procedures as set out in the relevant internal assessment guidelines provided by the Department of Higher Education and Training.

3.2 External assessment (50 percent)

A National Examination is conducted annually in October or November by means of a paper(s) set and moderated externally. A practical component will also be assessed.

External assessment details and procedures are set out in the Assessment Guidelines: Freight Logistics NQF Level 2.

4 WEIGHTED VALUES OF TOPICS

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<thead>
<tr>
<th>TOPICS</th>
<th>WEIGHTED VALUE</th>
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<td>Topic 3: Financial concepts and principles used in Freight Logistics</td>
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<td>Topic 4: Careers in Freight Logistics</td>
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<td><strong>TOTAL</strong></td>
<td><strong>100</strong></td>
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5 CALCULATION OF FINAL MARK

Internal assessment mark: Student’s mark/100 x 50 = a mark out of 50 (a)
Examination mark: Student’s mark/100 x 50 = a mark out of 50 (b)
Final mark: (a) + (b) = a mark out of 100

All marks are systematically processed and accurately recorded to be available as hard copy evidence for, amongst others, reporting, and moderation and verification purposes.

6 PASS REQUIREMENTS

The student must obtain at least fifty (50) percent in ICASS and fifty percent (50) in the examination.

7 SUBJECT AND LEARNING OUTCOMES

On completion of Freight Logistics NQF Level 2, the student should have covered the following topics:
Topic 1: Introduction to Freight Logistics
Topic 2: Key processes and functions in Freight Logistics
Topic 3: Financial concepts and principles used in Freight Logistics
Topic 4: Careers in Freight Logistics

7.1 TOPIC 1: INTRODUCTION TO FREIGHT LOGISTICS

Subject outcome 1.1: Describe the key concepts and fundamental principles of Freight Logistics

Learning Outcomes
The student should be able to:

- Formulate a definition and explain, with examples, the key concepts and principles of the freight logistics industry.
  
  Range: Freight Logistics; supply chain; supply and demand principle; difference between transport and logistics; logistics outsourcing functions; value add; traffic and transportation; warehousing and storage; materials handling; packaging; financial concepts relating to cost and profit calculation.

- Craft a glossary of frequently used terminology and acronyms in this industry.

- Relate freight logistics to the integrated supply chain.

**Subject outcome 1.2:** Explain the practice and environment of the freight logistics industry in South Africa.

**Learning Outcomes**

The student should be able to:

- Describe the size and scope of the freight logistics industry in South Africa
- Indicate the key players in the industry.
- Explain with examples key freight logistics responsibilities and processes.
  
  Range: Customer service; order processing; inventory control and demand forecasting; warehousing and storage; materials handling and procurement; distribution; traffic and transportation; subsidiary services; salvage; scrap disposal and return goods handling.

**7.2 TOPIC 2: KEY PROCESSES AND FUNCTIONS IN FREIGHT LOGISTICS**

**Subject Outcome 2.1:** Identify and explain different clusters of activities in the freight logistics environment

**Learning Outcomes**

The student should be able to:

- Compare the warehousing; distribution and technical clusters in the freight logistics environment.
- Describe the interrelationship between the three clusters.

**Subject Outcome 2.2:** Briefly describe the cluster of operations around warehousing freight logistics.

**Learning outcomes**

The student should be able to:

- Describe the role of warehousing in freight logistics.
- Identify and explain the major warehousing functions and activities.
  
  Range: order processing; inventory control and demand forecasting; warehousing including site and plant selection and storage; materials handling and procurement; salvage; scrap disposal and return goods handling.

- Identify and explain the internal and external role-players and customers.
Subject Outcome 2.3: Briefly describe the cluster of operations around distribution in freight logistics.

Learning Outcomes
The student should be able to:
- Describe the role of distribution in freight logistics.
- Identify and explain the major distribution functions and activities.
  *Range: order processing; materials handling; distribution and accompanying communication; traffic and transportation.*
- Identify and explain the internal and external role-players and customers.

Subject Outcome 2.4: Briefly describe the cluster of operations around subsidiary services in freight logistics.

Learning Outcomes
The student should be able to:
- Describe the role of subsidiary services in freight logistics.
- Identify and explain the major warehousing functions and activities.
  *Range: customer services and technical maintenance*
- Identify and explain the internal and external role-players and customers.
- Identify and explain outsourcing options and activities.

7.3 TOPIC 3: FINANCIAL CONCEPTS AND PRINCIPLES USED IN FREIGHT LOGISTICS

Subject Outcome 3.1: Recognise and use financial concepts in freight logistics.

Learning Outcomes
The student should be able to:
- Define or explain key financial concepts used in freight logistics.
  *Range: Capital, fixed costs; variable cost, breakeven, cost ratios.*
- Describe the broad income streams of freight logistics.
- List the broad expenditure items of freight logistics.
- Draw up an elementary income statement illustrating typical freight logistics income and expenditure items.

Subject Outcome 3.2: Explain and calculate different cost ratios.

Learning Outcomes
The student should be able to:
- Explain with examples different types of cost or expenditure.
  *Range: Manpower costs; diesel/fuel costs; maintenance costs; consumables and other.*
- Calculate different cost ratios, express the answers as a percentage and illustrate graphically.
Range: Manpower cost as a percentage of total cost, maintenance cost as a percentage of total cost, other cost items as a percentage of total cost.

7.4 TOPIC 4: CAREERS IN FREIGHT LOGISTICS

Subject Outcome 4.1: Explain the different career pathways and opportunities in the freight logistics industry

Learning Outcomes
The student should be able to:

• Draw the organisational structures of medium to large freight logistics operations.
• Describe the broad responsibilities and outputs of various departments in a logistic operation.

Subject Outcome 4.2: Describe specific traits and skills required for a person to pursue a career in freight logistics.

Learning Outcomes
The student should be able to:

• Investigate the qualifications and experience required at different organisational levels.
• Indicate the routes/avenues to progress from entry level to managerial/senior positions in an organisation.
• Briefly list and describe the elements and personal traits required to succeed in this industry.

8 RESOURCE NEEDS FOR THE TEACHING OF FREIGHT LOGISTICS LEVEL 2

8.1 Physical resources

The ideal would be to have a simulated freight logistics office with real documentation, communication means and other facilities to create a real life learning experience.

Normal classroom facilities are also required with the following training aids:

• Flipchart
• Data projector (preferable but not absolutely essential
• Calculator
• Financial statements
• Forms and logistics documentation
• Textbooks

8.2 Human resources

The lecturer should ideally:

• Be a good communicator with a thorough understanding of the freight logistics industry.
• Have a Bachelors degree in transport. Practical experience in the freight logistics environment will be a distinct advantage.
• Be competent in or have at least three years experience in the area in which he/she will be facilitating and assessing learning.

8.3 Other resources
Exposure to a large freight logistics operator will add considerable value but is not essential. Guest visits by logistics experts employed in freight logistics companies would add further value. Practical exposure can be enhanced by initiatives such as:

• PowerPoint presentations on freight logistics activities
• Discussion of the vision and mission of large freight logistics operators
• Using real financial data of operators
• Photos and other graphical aids
• Using information obtained via the Internet on freight logistics