

Economics

**Upper Secondary
Syllabus**



Papua New Guinea
Department of Education

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Secretary's message

This Economics syllabus is to be used by teachers to teach Upper Secondary students (Grades 11 and 12) throughout Papua New Guinea. This syllabus builds upon concepts, skills and attitudes learnt in Lower Secondary and provides a sound foundation for further learning.

The Upper Secondary Economics syllabus links to the National Education Plan's vision, which enables secondary students to achieve their individual potential to lead productive lives as members of the local, national and international community. This stage of learning provides the opportunity for deeper understanding of students to meet individual needs as well as local and global demands and challenges.

Teachers play a pivotal role in leading by being innovative, creative and keeping abreast of new information and technological change.

Through the study of Economics, students increase their understanding of economic issues. They use the economic method, tools, processes and policies to think and act logically on economic problems. Students are equipped with the basic skills and knowledge to prepare themselves for the many different employment opportunities that are available in the formal and informal sectors of the economy.

I commend and approve this syllabus as the official curriculum for Economics to be used in all schools with Grades 11 and 12 students throughout Papua New Guinea.



DR JOSEPH PAGELIO

Secretary for Education

Introduction

This syllabus is based on the curriculum principles from the National Curriculum Statement. It has been designed using learning outcomes that identify the knowledge, skills, attitudes and values that all students achieve or demonstrate by the end of Grade 12. It is linked to the national curriculum learning area Culture and Community and builds on the knowledge and skills students have learnt since elementary grades. This Economics syllabus offers a number of pathways to post-secondary study and the workforce. It has specialised and general applications in both areas.

Lower Secondary Business Studies	Lower Secondary Business Studies	Upper Secondary Economics	Upper Secondary Economics
Strands	Units	Strands	Units
<ul style="list-style-type: none"> • The Economic and Business Environment • Enterprise • Business Communication 	<ul style="list-style-type: none"> • Satisfying Needs and Wants • Being a Wise and Responsible Consumer • Business Communication • My Small Business Project • Marketing and Distribution • Starting a Small Business Enterprise—Mind Your Own Business • Keeping Accounts for My Business • Preparing for the Workplace • Laws and Business Regulations in Papua New Guinea • Business Calculations • Taxation • Computer Applications for Business • The Business of Tourism 	<ul style="list-style-type: none"> • Traditional Economics • Modern Economics 	<ul style="list-style-type: none"> • Introduction to Economics and the Economic Problem • Growing the Economy • Managing the Economy: A Micro-economic Focus • Managing the Economy: A Macro-economic Focus • The Global Economy

Economics is a specialised subject that requires a high level of English competency. Students need to be fluent in reading, writing and speaking English for research, report writing and oral and written presentations.

Economics is the study of the way we try to satisfy our material wants with the limited means available to us. The subject covers earning and spending an income, and the production and consumption of goods and services. From these areas of study emerge topics such as saving and investing, inflation, unemployment, trading with other people and other nations, paying taxes and being governed.

People in all societies have recognised the need to obtain goods and services to satisfy their wants. They must choose which wants to satisfy, how to produce the goods and services to satisfy these wants and how to share (distribute) among the members of the community. Students will study these Economics problems, and develop the knowledge and skills about various systems that can enable them to solve or overcome them.

Economics builds on learning from the Lower Secondary Business Studies strand, 'Economic and business environment', which focuses on developing and understanding the interaction between producers, consumers, government, financial institutions and other organisations as they conduct their business both locally and globally.

This syllabus outlines the strands and units for Grades 11 and 12. It has two strands: 'Traditional economics' and 'Modern economics'. The strands provide the basis for the development of the units.

Economics is to be timetabled for 240–250 minutes per week in Grades 11 and 12.

Rationale

The study of economics is becoming increasingly significant to many countries, including Papua New Guinea. This is not surprising, as economic problems and issues affect the day-to-day lives of every one of us.

Economics increases students' understanding of a range of issues, such as population policy, agricultural and industrial development, trade and aid. It equips them for the many different employment opportunities that are available in the formal and informal sectors of the economy.

Economics trains people to use the economic method, tools, processes and policies to think and act logically on economic problems. It provides students with a framework that encourages them to identify and analyse economic issues, such as ecological sustainability and income distribution, which affect individuals and groups in societies.

Economics provides students with concepts, models and skills to analyse the workings and predict the outcomes of an economic system and to evaluate the impact of interdependence at individual, regional and global levels.

The study of Economics enables students to develop knowledge and understanding, skills, attitudes and values using subject matter and methodology that suits their interests. It benefits students when they pursue further education and training, employment and active participation in their community.

Aims

Economics aims to enable students to:

- understand the economic problems of choice and opportunity cost, and how individuals, groups and societies have organised economic systems to deal with these problems
- develop knowledge, understanding and skills of application of the concepts, models, and terminology used in the study of Economics
- investigate and analyse economic events and to evaluate and predict the impact of economic change locally, nationally and globally
- be aware of the impact of economic decisions and their outcomes that may be inconsistent with social, moral, and ethical values
- be engaged as informed citizens to promote economically, ecologically, culturally and socially just and sustainable futures
- help develop skills in entrepreneurship, language and oral and written communication, information, management, problem solving and decision making
- apply knowledge and skills in practical settings
- discuss a range of issues affecting Papua New Guinea's economy and the global community.

Strands

The study of Economics is described in the following strands:

- 'Traditional economics'
- 'Modern economics'

Traditional economics

This strand deals with the idea that the economic problem, expressed as resources that are limited and wants that are unlimited, is ever-present and involves choice and opportunity cost. Economic systems have been developed by societies to deal with the economic problem and have evolved over time because of social pressure for change. This change is particularly evident in the study of economies in transition, and students can reflect on the way in which economic systems have operated in the past, challenge the way in which systems operate currently, and develop preferred scenarios for the future. Students develop skills to recognise, predict and critically evaluate economic change and apply these skills to economic decisions made for both short-term and long-term outcomes, recognising the implications for future generations.

Economic decisions are unavoidable and the outcome of an economic decision involves costs and benefits. The costs may affect those not involved in the making of the decision and are known as external costs; these may impact negatively on the environment. The full costs of economic decisions in different places may become evident in the future and are often not considered at the time when decisions are made. Students investigate, analyse, evaluate and make judgements about economic decisions in terms of sustainable development.

Modern economics

This strand deals with the idea that different economic systems reflect the diverse values of individuals, communities, and societies. Economic decisions have outcomes that may be inconsistent with the social, ethical, or moral values held by society. These outcomes may be modified so that they conform more closely to the values held. This strand recognises that government has the major role in changing outcomes. Students critically evaluate this role of government in a wide range of situations, including changing income distribution both nationally and globally. Trade between nations means that there is reliance or interdependence between them, and this provides important links between different cultures. Students are involved in investigating economic issues in society and recognise the role of power groups in the economy in determining economic decisions and outcomes.

All individuals are part of an economic system and economic decisions are made at individual, regional and national levels. The strand encourages students to examine critically the range of processes and institutions that operate within an economic system to enable decisions to be made. In doing so, students develop an understanding of the role of the individual in the decision-making process. Students also become aware of their own roles in the economic system as consumers of goods and services and as resource providers. Students analyse the roles and relationships of people and groups

in an economic system through the use of models such as the circular-flow model. Students have opportunities to distinguish between fact and opinion and explain cause and effect. To become more effective participants in society, students are encouraged to make forecasts, evaluate change, and consider the consequences of a range of actions before deciding on their own response and action.

Learning outcomes

The learning outcomes for Economics identify the knowledge, skills, attitudes and values all students achieve or demonstrate at the end of Grade 12. These learning outcomes are listed below.

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
2. demonstrate an understanding of the role of economic systems in providing solutions to economic problems
3. analyse economic events, past and present, using economic models and the skills of economic inquiry
4. predict and evaluate the impact of economic change in local, national and global settings
5. explain and reconcile the way economic decisions involve costs and benefits and have outcomes that may be inconsistent with social, moral and ethical values
6. describe and explain the way outcomes may be changed by individuals, community groups, business and government
7. identify the effects of interdependence at individual, local, national and global levels
8. communicate economic information, ideas and issues in a variety of ways.

Learning outcomes mapped against units					
Learning outcomes	Units				
	11.1	11.2	11.3	12.1	12.2
1. Demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics	✓	✓	✓	✓	✓
2. Demonstrate an understanding of the role of economic systems in providing solutions to economic problems	✓				
3. Analyse economic events, past and present, using economic models and the skills of economic inquiry			✓	✓	✓
4. Predict and evaluate the impact of economic change in local, national and global settings			✓	✓	✓
5. Explain and reconcile the way economic decisions involve costs and benefits and have outcomes that may be inconsistent with social, moral and ethical values		✓		✓	✓
6. Describe and explain the way outcomes may be changed by individuals, community groups, business and government				✓	✓
7. Identify the effects of interdependence at individual, local, national and global levels			✓	✓	✓
8. Communicate economic information, ideas and issues in a variety of ways	✓	✓	✓	✓	✓

Unit sequence and content

Grade 11 units	Grade 12 units
<p>11.1 Introduction to Economics and the Economic Problem</p> <p><i>10 weeks</i></p> <ul style="list-style-type: none"> • Introduction to Economics • The basic economic problem • Resources • Economic decision making • Economic systems <p>11.2 Growing the Economy</p> <p><i>10 weeks</i></p> <ul style="list-style-type: none"> • Factors of production • Chain of production • Specialisation of productive resources <p>11.3 Managing the Economy: A Micro-economic Focus</p> <p><i>20 weeks</i></p> <ul style="list-style-type: none"> • Price theory • Elementary theory of demand and supply • Elasticities of demand and supply • Government intervention in the price mechanism • Market structures 	<p>12.1 Managing the Economy: A Macro-economic Focus</p> <p><i>20 weeks</i></p> <ul style="list-style-type: none"> • The circular flow of income • The role of the government in the economy • Government economic policy strategies • Issues facing the economy of Papua New Guinea <p>12.2 The Global Economy</p> <p><i>20 weeks</i></p> <ul style="list-style-type: none"> • International trade • Trade and protection • Balance of payments • Exchange rates • Globalisation in an economic context

Grade 11 units

11.1 Introduction to Economics and the Economic Problem

10 weeks

This unit focuses on what Economics is—on what the basic economic problem is, what its causes and effects are, and the steps involved in trying to resolve it. Students learn that while everyone faces the economic problem, methods of solving it differ from individual to individual, group to group, and society to society, depending on resource availability.

This unit enables students to observe, identify and apply appropriate measures to make informed decisions on how best they can use limited resources to sustain their living. Students also demonstrate and apply the skills of constructing and interpreting graphs and diagrams to illustrate and represent economic ideas.

Learning outcomes

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
2. demonstrate an understanding of the role of economic systems in providing solutions to economic problems
8. communicate economic information, ideas and issues in a variety of ways.

To achieve these outcomes, students:

- investigate the complexity of the economic problem and apply economic decision-making tools and processes to deal with the problem
- demonstrate an understanding of the role of economic systems in relation to economic problems in Papua New Guinea
- distinguish between the approaches adopted by a range of economic systems to allocate resources.

Content

Students acquire knowledge and skills through the learning and teaching of this content. Students identify basic economic problems through research and find solutions using the economic method. Students also construct and interpret various types of graphs.

Introduction to Economics

- definition of economics
- economics as a social science
- the branches of economics
 - micro-economics

- macro-economics
- global (international) economics

The basic economic problem

- economic activity and wants
- origins of wants
- wants versus needs
- types and characteristics of wants

Resources

- definition of resources
- resource types
- renewable and non-renewable
- characteristics of resources
- choice versus opportunity cost
 - production possibility curve or frontier
- allocation of resources
- solving the economic problem using the economic method

Economic decision making

- case studies of two economies in developing countries
- costs and benefits
- tourism: a decision-making game

Economic systems

- basic economic questions: what, how, for whom and how much
- subsistence or traditional economy: the family unit as an example
- market economy
- command or planned economy
- mixed economy

Skills to be taught and applied

- inquiry and research skills
- interpreting and constructing graphs
- communicating ideas and information in a variety of ways
- decision-making skills
- using a range of sources to acquire economic information
- applying economic knowledge, concepts, models and skills

11.2 Growing the Economy

10 weeks

The ability of an emerging economy like Papua New Guinea to satisfy its citizen's wants depends on the availability of resources. This unit enables students to identify these resources and how best they can be used to produce goods and services.

It is vital for a country like Papua New Guinea to grow. In economic terms this means economic growth. Improved quality and increased quantity of the factors of production may lead to increased efficiency, innovation, investment and the creation of wealth.

In this unit, students use and apply various skills to examine the issues surrounding production and the growth of the economy.

Learning outcomes

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
5. explain and reconcile the way economic decisions involve costs and benefits and have outcomes that may be inconsistent with social, moral and ethical values
8. communicate economic information, ideas and issues in a variety of ways.

To achieve these outcomes, students:

- describe the meaning, measurement and trends of economic growth in Papua New Guinea
- evaluate the costs and benefits of pursuing economic growth in Papua New Guinea.

Content

Students acquire knowledge and skills through the learning and teaching of this content. Students identify the factors of production by discussion in groups.

Factors of production

- economic resources
- types of resources and factor payments
- labour force
- land resources in Papua New Guinea
 - land ownership
 - economic development
- capital and appropriate capital
- enterprise: case study of successful businesses in Papua New Guinea

- links between resources and national wealth

Chain of production

- types of inputs and outputs—use local area examples of production
- costs and benefits of production
 - externalities: private and social costs
- production variables
 - fixed variable factors
 - long and short term
 - diminishing returns
 - economies and diseconomies of scale

Specialisation of productive resources

- forms of specialisation
- advantages and disadvantages of specialisation
- productivity in Papua New Guinea

Skills to be taught and applied

- defining key economic concepts and using them appropriately
- applying the tools of economic analysis, including problem solving
- applying economic concepts and theories
- analysing statistical and graphical data
- acquiring and exchanging economic information and ideas through working cooperatively in groups
- researching and communicating economic information

11.3 Managing the Economy: A Micro-economic Focus

20 weeks

This unit highlights the importance of the price mechanism in the allocation of resources in a country where the predominant features are those of the market economy. Here, price is determined by the interaction of consumer behaviour, seller behaviour and levels of supply, and is represented theoretically by the demand–supply model. This model is used to illustrate how price is determined and explains price changes and the effect of price changes on quantity traded.

Students use the demand–supply model to illustrate the equilibrium market price and examine other factors that affect demand and supply and changes in these factors. Students investigate the determinants of price elasticity of demand and supply, cross and income elasticity of demand, and develop an understanding of the nature of elasticity of demand by using the point, arc and total revenue or outlay method.

The students also examine the use of elasticity of demand and supply to predict the effect of price change on quantity traded. In addition, they examine the dynamics of perfect and imperfect markets and explain the reasons for, and consequences of, market failures. The micro-economic focus for this unit is emphasised through a case study of a local industry.

Learning outcomes

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
3. analyse economic events, past and present, using economic models and the skills of economic inquiry
4. predict and evaluate the impact of economic change in local, national and global settings
7. identify the effects of interdependence at individual, local, national and global levels
8. communicate economic information, ideas and issues in a variety of ways.

To achieve these outcomes, students:

- analyse and evaluate the effectiveness of the market system in determining prices
- describe and use the main tools of micro-economic management
- describe and analyse a chosen local industry in terms of its contribution to the local economy.

Content

Students acquire knowledge and skills through the learning and teaching of this content. Students apply the tools of micro-economics to explain the role

of prices, the study of supply and demand and the government intervention in the price mechanism.

Price theory

- role of price
- limitation of price theory

Elementary theory of demand and supply

- demand and demand determinants
- demand schedules and demand curves
- supply and supply determinants
- supply schedules and supply curves
- interaction of demand and supply or equilibrium

Elasticities of demand and supply

- price elasticity of demand
 - determinants of price elasticity of demand
 - types of price elasticity of demand
 - calculation of demand elasticity coefficient using point method, arc and total outlay or revenue methods
 - importance of price elasticity of demand
- income elasticity of demand
- cross elasticity of demand
 - substitutes and complements
 - importance of cross elasticity of demand
- price elasticity of supply
 - determinants of supply elasticity coefficient
 - types of price elasticity of supply
 - calculation of price elasticity of supply coefficients
 - point method
 - importance of price elasticity of supply

Government intervention in the price mechanism

- application of price theory
 - sales tax or goods and services tax
 - subsidies to local producers
 - price control
 - price support
 - minimum wages policies

Market structures

- perfect market or competition and its features
- imperfect markets and their features
- case studies of market structure reforms in Papua New Guinea; for example, in the telecommunications sector

Skills to be taught and applied

- using a range of sources to acquire economic information
- applying economic knowledge, concepts, models and skills
- expressing, interpreting and analysing economic information
- applying tools of economic analysis including problem solving
- researching, collecting and analysing information using a case study of a local industry

Grade 12 units

12.1 Managing the Economy: A Macro-economic Focus

20 weeks

This unit highlights the broader economic issues surrounding the concepts of economic growth, income and expenditure and key economic policies, such as budgetary or fiscal policy and monetary policy, which the government uses to regulate the economy.

Students inquire into, and analyse the effects of, government policies on the economy and identify possible solutions to tackle problems such as inflation, unemployment and inequitable distribution of income that are associated with economic growth.

Students develop an understanding of how these policies operate to achieve desired outcomes as expressed through key government economic objectives.

Learning outcomes

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
3. analyse economic events, past and present, using economic models and the skills of economic inquiry
4. predict and evaluate the impact of economic change in local, national and global settings
5. explain and reconcile the way economic decisions involve costs and benefits and have outcomes that may be inconsistent with social, moral and ethical values
6. describe and explain the way outcomes may be changed by individuals, community groups, business and government
7. identify the effects of interdependence at individual, local, national and global levels
8. communicate economic information, ideas and issues in a variety of ways.

To achieve these outcomes, students:

- explain the nature and operation of government macro-economic policy and evaluate its effectiveness in achieving the macro-economic objectives of the Papua New Guinean government
- describe the weaknesses in the market economy and illustrate the reasons for government intervention and regulation in the market
- identify the range of macro-economic issues currently impacting on the economy of Papua New Guinea and link appropriate macro-economic management strategies to those issues.

Content

Students acquire knowledge and skills through the learning and teaching of this content. Students are enabled to apply the tools and methods of macro-economics to analyse the performance of Papua New Guinea's economy.

The circular flow of income

- factors of income and factors of payment
- the two-sector model
- the three-sector model
- the four-sector model
- the five-sector model
- national income analysis (gross domestic product (GDP) and gross national product (GNP))
- methods of calculating GDP (measuring output)

The role of the government in the economy

- Papua New Guinea's eight aims and directive principles
- the basic economic aims of the government
 - economic growth as a component of the Medium Term Development Strategy (MTDS)
 - income-earning opportunities
 - price stability
 - balance of payment

Government economic policy strategies

Money, banking and monetary policy

- money and money supply
- quantity theory of money
- banking and credit creation
- monetary policy

Fiscal policy

- fiscal or budgetary policy
- budget
 - types of budgets
 - reasons for budgeting
 - effects of budget types on economy
 - main objectives of budgets
- taxation
 - reasons for taxation
 - types and sources of taxation
 - tax systems (types of tax rates)

Incomes and wages policy

- determination of wage rates in a free market
- minimum wages
- wage indexation
- prices and incomes policy

Issues facing the economy of Papua New Guinea

Employment issues in Papua New Guinea

- labour force or workforce
- factors, including income distribution, affecting the workforce in Papua New Guinea
- employment by sectors of Papua New Guinea's economy
 - formal sector: primary, secondary and service industries
 - informal sector
 - subsistence sector
 - measures to help formal and informal sectors.
- unemployment and underemployment
 - types of unemployment
 - employment issues and income distribution

Inflation issues

- types and causes of inflation
- effects of inflation on the economy
- the relationship between inflation and unemployment: the Phillips curve
- policies used to control inflation
- measuring inflation using the consumer price index

Skills to be taught and applied

- using a range of sources to acquire economic information
- applying economic knowledge, concepts, models and skills
- expressing, interpreting, and analysing economic information
- acquiring and exchanging economic information and ideas through working cooperatively in groups
- analysing statistical and graphical data.

12.2 The Global Economy

20 weeks

This unit examines the significance of Papua New Guinea's trade relations with other countries. The basis for, and the costs and benefits of, international trade and the issues surrounding globalisation are the main focus in this unit.

Students develop an understanding of foreign relationships by identifying motives behind trade and defining and analysing the key economic concepts, principles and economic theories that apply to Papua New Guinea's international relations with the rest of the world. The students also apply economic models to illustrate and simplify the multilateral relationships that Papua New Guinea has with other countries.

Students also discover the structure of Papua New Guinea's balance of payments in relation to the composition and direction of trade and capital flows. In addition, students examine how export receipts and import payments influence the exchange rates and the welfare of the nation.

Learning outcomes

Students can:

1. demonstrate an understanding and application of concepts, principles, models, skills, and terminology used in the study of Economics
3. analyse economic events, past and present, using economic models and the skills of economic inquiry
4. predict and evaluate the impact of economic change in local, national and global settings
5. explain and reconcile the way economic decisions involve costs and benefits and have outcomes that may be inconsistent with social, moral and ethical values
6. describe and explain the way outcomes may be changed by individuals, community groups, business and government
7. identify the effects of interdependence at individual, local, national and global levels
8. communicate economic information, ideas and issues in a variety of ways.

To achieve these outcomes, students:

- use trends in balance of payments, terms of trade and exchange rates to identify key issues facing the domestic and external economy of Papua New Guinea
- discuss the likely effects of these issues on the domestic economy and propose appropriate micro-economic and macro-economic strategies to manage these issues
- describe and illustrate the impacts of globalisation on the economy of Papua New Guinea.

Content

Students acquire knowledge and skills through the learning and teaching of this content. Students are enabled to explain and evaluate the impact of trade and globalisation on the Papua New Guinean economy.

International trade

- reasons for trade
- basic principles of international trade: comparative and absolute advantage
- opportunity cost and production possibilities
- average and marginal costs

Trade and protection

- free trade
- advantages of free trade
- protection and protection measures
- advantages and disadvantages of protection measures
- arguments for and against protection

Balance of payments

- balance of payment
 - reasons for keeping accurate accounting records
 - types of and components of each account: current and capital or financial accounts
 - overall balance of payments
 - measures of correcting balance of payments disequilibria
 - effects of balance of payments surplus and deficit on the economy
- terms of trade
 - types of terms of trade and calculations
 - effects of change in import and export price index
 - reasons for deteriorating terms of trade
 - effects of deterioration in a nation's terms of trade
 - measures for improving terms of trade

Exchange rates

- factors determining an exchange rate
- ways of fixing exchange rates
- types of exchange rates
- advantages and disadvantages of each type of exchange rate
- calculation and conversion of exchange rates

Globalisation in an economic context

- the rapid opening up of trade links between powerful developed economies and emerging economies

- international economic integration
- foreign aid and foreign investment
- the increasing rate of takeover of foreign markets by multinational companies operating on a large scale and with significant financial backing
- arguments for and against globalisation

Skills to be taught and applied

- inquiry and research skills
- applying economic knowledge, concepts, models and skills
- evaluating economic arguments in relation to selected contemporary issues
- expressing, interpreting and analysing economic information
- constructing graphs and tables to represent economic data
- applying tools of economic analysis including problem solving

Assessment components, weightings and tasks

The internal assessment mark for Economics is to be based on the Grade 11–12 syllabus only. Final assessment must be based on a range and balance of assessment tasks and assessment components as detailed below.

Components, weighting and tasks for Grade 11

Component	Weighting	Tasks
Tests and examinations	150	These may include multiple-choice items, short answers and extended responses
Research, investigation and communication	75	These tasks can include elements within class, particularly in the presentation phase. Tasks may be undertaken over a period of time. The communication may be written or oral
Stimulus-based skills	25	Statistical interpretation, graphical skills, calculations. These can utilise contemporary or hypothetical situations
Group work	50	Should include group-based tasks, although it may incorporate individual elements in the reporting phase. The tasks can include written reports from group research, seminars, group presentations, multimedia presentations
Marks	300	

Components, weighting and tasks for Grade 12

Component	Weighting	Tasks
Tests and examinations	150	These may include multiple-choice items, short answers and extended responses
Research, investigation and communication	100	Tasks may include student research on aspects of a topic, reported through a prepared essay or an in-class task or presentation
Stimulus-based skills	50	Statistical interpretation, graphical skills and calculations. These can utilise theoretical, contemporary or hypothetical situations
Marks	300	

Assessment, examinations and certification

The assessment and reporting practices described here are detailed further in the *National Assessment and Reporting Policy for Papua New Guinea* (2003) and in other support materials produced by the Department of Education.

Assessment

The main purpose of assessment is to improve student learning.

Assessment needs to be *for* learning as well as *of* learning. It is used to evaluate and improve learning and teaching, report achievement and provide feedback to students on their progress.

Assessment measures students' achievement of learning outcomes as described in the syllabus. It is the ongoing process of identifying, gathering and interpreting information about students' achievement of the learning outcomes.

Learning and teaching using an outcomes approach requires teachers to plan their teaching and assess learner performance in relation to outcomes using criteria derived from those outcomes. Assessment involves focusing less on whether a learner has 'passed' or 'failed' and more on what outcomes a learner has achieved and in which areas further support is required.

Assessment in Economics

A student's achievement in Economics at the end of Grade 12 will be assessed against the learning outcomes. Assessment of student progress towards achieving these learning outcomes is cumulative throughout Grades 11 and 12.

It is important that teachers plan the learning and teaching sequence so that there is a balanced spread of assessment during the year. Some tasks, such as investigations or case studies, can be designed so that they are completed over a period of time rather than at the end of the unit. Other tasks can be done immediately after the relevant section of the unit or topic has been covered.

Assessment for certification

A student's overall achievement in Economics will be both internally and externally assessed. The final mark awarded to each student will be a combination of the internal assessment mark provided by the school and the examination mark.

Internal assessment

Internal assessment provides a measure of a student's achievement based on a wider range of syllabus content and outcomes than may be covered by the external examination alone. For Economics, the internal assessment marks will provide a summation of each student's achievements in

Grades 11 and 12. The assessment tasks used to determine the internal assessment mark must comply with the components, weightings and types of tasks specified in the tables on page 22. A variety of tasks gives students the opportunity to demonstrate all the learning outcomes in different ways to improve the validity and reliability of the assessment.

All schools must meet the requirements for internal assessment as specified in the *Grade 12 Assessment, Examination and Certification Handbook*.

External examination

The external examination provides a measure of student achievement of those aspects of the learning outcomes that can be reliably measured in an examination setting. Questions for the external examination in Economics will be developed using the outcomes, knowledge and skills in the syllabus.

Recording

All schools must meet the requirements for maintaining and submitting student records as specified in the *Grade 12 Assessment, Examination and Certification Handbook*.

Certification

Candidates will be awarded the national certificate only if they meet all requirements for internal and external assessment. Eligibility rules for the award of certificates are specified in the *Grade 12 Assessment, Examination and Certification Handbook*.