

## MINISTRY OF EDUCATION, ARTS AND CULTURE

## **SENIOR SECONDARY PHASE**

# INFORMATION AND COMMUNICATION SYLLABUS

**GRADE 12** 

**FOR IMPLEMENTATION IN 2021** 

Ministry of Education, Arts and Culture National Institute for Educational Development (NIED) Private Bag 2034 Okahandja Namibia

© Copyright NIED, Ministry of Education, Arts and Culture, 2018 Information and Communication SS Syllabus Grade 12

ISBN: 978-999645-2-234-7

Printed by NIED

Publication date: 2018

## **TABLE OF CONTENTS**

1.	Introduction	1
2.	Rationale	2
3.	Aims	2
4.	Summary of learning content	2
5.	Learning content	3
6.	Assessment	11
An	nexe 1: Glossary of terms	13

## 1. INTRODUCTION

This Senior Secondary syllabus for Information and Communication is designed as a oneyear course following on the previous phases. The syllabus has been approved by the National Examination, Assessment and Certification Board. (NEACB)

The Namibia National Curriculum Guidelines, applicable at the stage of senior secondary education (Grades 10-12) and at equivalent stages of non-formal education, as a part of lifelong learning, recognise the uniqueness of the learner and adhere to the philosophy of learner-centred education.

## The Namibia National Curriculum Guidelines:

- recognise that learning involves developing values and attitudes as well as knowledge and skills
- promote self-awareness and an understanding of the attitudes, values and beliefs of others in a multilingual and multicultural society
- encourage respect for human rights and freedom of speech
- provide insight and understanding of crucial global issues in a rapidly changing world which affects quality of life: the AIDS pandemic, global warming, environmental degradation, distribution of wealth, expanding and increasing conflicts, the technological explosion and increased connectivity
- recognise that as information in its various forms becomes more accessible, learners need to develop higher cognitive skills of analysis, interpretation and evaluation to use information effectively
- seek to challenge and to motivate learners to reach their full potential and to contribute positively to the environment, economy and society

Thus the Namibia National Curriculum Guidelines provide opportunities for developing essential key skills across the various fields of study. Such skills cannot be developed in isolation and they may differ from context to context according to a field of study. The skills marked with an \* are relevant to this syllabus.

## The skills are:

- communication skills \*
- numeracy skills\*
- information skills \*
- problem-solving skills \*
- self-management and competitive skills \*
- social and cooperative skills \*
- physical skills
- work and study skills \*
- critical and creative thinking\*

## 2. RATIONALE

Information and Communication is a dynamic, living and cultural product. It is more than an accumulation of facts, skills and knowledge. The study of media and information skills involves conceptual structures, strategies of problem solving and attitudes towards and appreciation of technology. Information and Communication as a subject will embed in learners life-long skills in accessing, evaluating, using, creating and sharing information. Increasingly in the modern world, acquisition of media and literacy skills is becoming necessary for employment, educational development and leisure. The Information and Communication course intends to furnish learners with a broad knowledge of the nature of information acquisition, processing and sharing and how information and media technology are used.

The Senior Secondary syllabus for Information and Communication strives to prepare learners to function effectively in the 21<sup>st</sup> century by providing a basis to utilise the skills and knowledge to:

- understand the media environment
- access information sources
- evaluate media and information sources
- use, create and share information ethically
- use information and communication technology (ICT) effectively

Teachers are encouraged to use the syllabus in congruence with learners' needs, and encourage learners to apply the skills to their other subjects, e.g. a mobile app can be developed as a practical project for Geography or Accounting.

## 3. AIMS

The aims of the syllabus are the same for all learners. These are set out below and describe the educational purposes of a course in Information and Communication in the Senior Secondary phase. They are not listed in order of priority.

The aims are to enable learners to:

- develop an understanding of the main principles of media and information literacy
- access information effectively
- evaluate sources of information
- create their own information
- communicate information
- be aware of the ethical standards when accessing, using, creating and sharing information
- effectively use ICT to access information and to develop a product

## 4. SUMMARY OF LEARNING CONTENT

The syllabus covers the following themes:

Theme 1: Media literacy
Theme 2: Information literacy

Please note that content from previous phases can and should be revisited as needed

## 5. LEARNING CONTENT

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
THEME 1 MEDIA LITERAC	Y	
1.1 The culture of the media environment and interaction therewith	understand the legal environment of media	have access to the Information Bill
1.2 Evaluation of media content in a variety of formats	understand how to apply critical thinking to make informed decisions about media content	<ul> <li>critically analyse and appraise the following media types:</li> <li>text</li> <li>images</li> <li>audio</li> <li>video</li> </ul>
1.3 Media ethics	be aware of the ethical responsibility of generators and consumers of media	<ul> <li>explore the professional codes for journalistic standards. i.a.</li> <li>transparency</li> <li>accountability and responsibility</li> <li>accuracy</li> <li>objectivity</li> <li>empathy</li> </ul>
1.4 Skills - including Information and Communications Technology (ICT) needed to create, distribute, use and share knowledge	obtain skills (including ICT) needed to create, distribute, use and share knowledge	use ICT tools to create a website a vlog

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
THEME 2: INFORMATION	I LITERACY	
2.1 Multiple forms of information sources	know about a variety of information sources	successfully locate and utilise information from     books     public announcements     government reports     press releases     encyclopaedias     meetings     political rallies     yearbooks     academic journals     Internet
	understand and appreciate the importance of the library	<ul> <li>identify and use different services offered by their own (school) and other libraries</li> <li>specialised libraries</li> <li>law libraries</li> <li>digital libraries</li> </ul>
2.2 The need to access information	know the principles needed for an information task	<ul> <li>develop a research statement</li> <li>determine the extent of the information needed</li> <li>develop data collection tools <ul> <li>forms</li> <li>polls</li> <li>interviews (design)</li> </ul> </li> </ul>

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.3 Locating and accessing information	know the principles needed for an information task	<ul> <li>obtain information using various methods and tools</li> <li>conduct interviews</li> <li>use the tools developed in 2.2 to obtain information</li> <li>analyse and interpret the data obtained from interviews, forms, polls</li> <li>use cross-references to locate additional information</li> <li>take notes using guided research forms to extract relevant information</li> <li>use advanced search strategies (online and otherwise)</li> </ul>
	use appropriate services to retrieve information	use portals effectively
2.4 Assessing the usefulness and relevance of information	know how to critically evaluate information and its sources	<ul> <li>recognise inadequacies or gaps in information</li> <li>trace information through citations</li> <li>evaluate and recognise <ul> <li>currentness, reliability and validity of information</li> <li>credibility of author and publisher</li> <li>authority of sources</li> <li>credibility of citations and sources</li> <li>misrepresentation</li> <li>bias</li> <li>the impact of advertising on consumers</li> <li>political pressure</li> <li>emotional appeals (e.g. peer pressure, religious rallies)</li> </ul> </li> <li>investigate similarities and differences between traditional and digital media</li> <li>follow a three-thronged approach (triangulation)</li> <li>realise the importance of using recognised sources of information (e.g. Wikipedia not acceptable)</li> </ul>

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.5 Managing collected information	appreciate sources of information	use the American Psychological Association (APA) system of referencing for all assignments and research tasks
	recognise the need to store and organise information	<ul> <li>create repositories using IT tools and applications         <ul> <li>database</li> <li>Scoop-it</li> <li>LinkedIn</li> <li>Google tools</li> </ul> </li> <li>use graphic organisers and outlines to organise information logically         <ul> <li>EndNote</li> <li>Microsoft OneNote</li> </ul> </li> </ul>
		- card files
2.6 The ethical use of information	know ethical procedures while using, creating and sharing information	<ul> <li>recognise the importance of</li> <li>copyright and intellectual property</li> <li>privacy</li> <li>citation</li> <li>acknowledgements</li> <li>bibliography</li> <li>the consequences of plagiarism</li> </ul>
	understand ethical issues in media	recognise the possibility of image manipulation
		identify when media information ethics have been breached
		critically evaluate ethical issues in media

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.7 Communication of information	have the skill to communicate information effectively and appropriately using a variety of skills	<ul> <li>use a range of appropriate information technology (IT) applications as well as other tools to create a product:         <ul> <li>publishing software</li> <li>authoring software</li> <li>word processors</li> <li>presentation software</li> <li>spreadsheets</li> <li>editing software</li> <li>podcasts</li> <li>vlogs</li> <li>mobile apps</li> </ul> </li> <li>effectively use online collaboration tools         <ul> <li>Dropbox</li> <li>Google Drive</li> <li>OneDrive</li> <li>e-mail groups (e.g. Google Groups)</li> </ul> </li> <li>create QR codes</li> </ul>
		access information via QR codes

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.8 ICT skills for the processing of information*	understand the use of appropriate technology for educational and personal goals: word processing	<ul> <li>perform advanced tasks:         <ul> <li>Table of Contents (ToC)</li> <li>review features (e.g. track changes and comments)</li> <li>find and replace</li> <li>advanced formatting (e.g. format painter, clear formats)</li> <li>mail merge</li> <li>page and section breaks</li> <li>page numbering</li> <li>various orientations in one document</li> <li>increase and decrease indents</li> <li>borders and shading</li> <li>watermark</li> <li>text wrapping</li> <li>insert an index</li> <li>referencing</li> <li>insert a screenshot</li> <li>image manipulation</li> <li>macros</li> </ul> </li> </ul>

<sup>\*</sup> Please note that ICT skills listed in previous phases should be revisited

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.8 ICT skills for the processing of information (continued)	understand the use of appropriate technology for educational and personal goals: spreadsheets	<ul> <li>apply conditional formatting</li> <li>apply the following features in spreadsheets: <ul> <li>data validation</li> <li>paste special</li> <li>filter</li> <li>search</li> <li>insert hyperlinks</li> </ul> </li> </ul>
	<ul> <li>understand the use of appropriate technology for educational and personal goals: authoring software</li> </ul>	create an interactive, multimedia website
	understand the use of appropriate technology for educational and personal goals: database	<ul> <li>create forms for a database containing some of the following components:         <ul> <li>combo box</li> <li>list box</li> </ul> </li> <li>create reports from a database</li> <li>apply data migration techniques in a database (import and export)</li> </ul>

THEMES AND TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES
	Learners will:	Learners should be able to:
2.8 ICT skills for the processing of information (continued)	understand the use of appropriate technology for educational and personal goals: create and share a mobile app (this portion of the syllabus is optional)	<ul> <li>access visual programming platforms         <ul> <li>tynker (www.tynker.com)</li> <li>Codecademy</li> </ul> </li> <li>identify and use various coding tools         <ul> <li>Android studio</li> <li>LiveCode</li> <li>App inventor</li> <li>Hypertext Markup Language 5 (HTML5)</li> </ul> </li> <li>demonstrate an understanding of scripting languages and their use         <ul> <li>JavaScript</li> <li>JQuery</li> <li>VBscript (Microsoft Visual Basic Scripting Edition)</li> </ul> </li> <li>understand programming concepts         <ul> <li>sequencing</li> <li>repetition</li> <li>conditional logic</li> </ul> </li> </ul>
		apply modular techniques in coding activities

## 6. ASSESSMENT

A learner-centred curriculum and learner-centred teaching encompass a broad range of knowledge and skills which are relevant to the knowledge-based society. The specific objectives in the syllabus state what understanding and skills a learner must demonstrate as a result of this teaching-learning process.

## 6.1 Class assessment

Class assessment should be planned and programmed at the beginning of the year. Marks given for class activities, practical activities, project work, assignments, homework and short tests may be recorded for continuous assessment.

Continuous assessment must be clear, simple and manageable, and explicitly anchored in learner-centred principles and practice. This can be done in an informal way and in their participation in general, through structured observation of each learner's progress in learning and practice situations while they are investigating things, interpreting phenomena and data, applying knowledge, communicating and making value judgements.

The learner's progress and achievements in this subject must be reported to parents in the school report. **No end-of-term examinations may be written**.

## 6.2 Grade descriptors

The learner's summative achievement in the specific objectives will be shown in letter grades a to e, where 'a' is the highest and 'e' the lowest grade for learners achieving minimum competency level. In cases where a learner has not reached the minimum level of competency a 'u' will be awarded.

## 6.3 Guidelines

For Information and Communication in Grade 12 class assessment contributes 100% to the final mark.

## Types of continuous assessment tasks

**Projects:** A project gives learners an opportunity to complete an investigation into one of the themes /topics outlined in the syllabus. This type of investigation will enable the teacher and learner to pursue a topic in greater depth and in a more lively and creative way. It is recommended that learners do an extensive research task spanning the two/three years, with standards set for each year.

**Topic tasks / tests:** Completed topics should be concluded with a test indicating the achievements of the learners in these topics.

The assessment tasks aim to test knowledge with understanding as well as application of knowledge (especially in computer skills).

## **Examples of assessment activities:**

- An extensive research task that spans over the two/three years. May be based on a school subject or on the learner's intended field of study. Standards should be set for each year. Principles of media and information literacy should be adhered to, the format should be academic and in line with current practices in Namibian tertiary institutions and acquired skills (ICT and other) should be displayed, e.g.
  - Prologue
  - Table of contents
  - Foot notes
  - End notes
  - Acknowledgements
  - Bibliography
  - Citations
  - Glossary
  - Index
  - Investigate advertising as an important source of revenue for media providers as well as the techniques used by advertisers to promote a product or a message.
  - Write a proposal about how to establish a functional school library (this may also be the topic of a research task).
  - Book reviews covering various genres.
  - Create own story / play / poem / movie script in a specific genre using ICT tools
- \* Consult the UNESCO MIL Curriculum for Teachers for many more ideas: <a href="http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/media-and-information-literacy-curriculum-forteachers/">teachers/</a>

## ANNEXE 1: GLOSSARY OF TERMS

**3G** (short for 3<sup>rd</sup> Generation) is an access technology that made Internet

connection on mobile devices possible. (The first generation was analogue and enables voice calls, while the second generation also

made text messaging possible)

**4G** (short for 4<sup>th</sup> Generation) is a communications standard intended to

replace 3G, delivering Internet access at a much higher speed

**5G** (short for 5<sup>th</sup> Generation) is once again an improvement on 4G. (This

high-speed service enables the user to download an 8 Gb HD movie

in 6 seconds – with 4G it will take 7 minutes)

APA a style in which to acknowledge the sources used to write an essay or

assignment paper (American Psychological Association)

authoring software software needed to create an interactive, multimedia website

bias an unfair dislike of something or somebody; an unfair preference for

something or somebody

**blog** short for web log; a website containing a regular journal on a specific

subject' latest entries appear first

**browser** a software application enabling a user to access the Internet

cite recognising a source of information or of a quoted passage

**cloud computing** is the practice of using a network of remote servers – hosted on the

Internet – to store, manage and process data rather than using a local

server or a personal computer

**copyright** the legal right of creative artists or publishers to control the use and

reproduction of their original works

**cyberfraud** any type of deliberate deception for unfair or unlawful gain that occurs

online

**DDC** the Dewy Decimal Classification system used in libraries to divide

non-fiction books into ten main classes

digital media content (text, graphic, audio, video) that can be transmitted over

computer networks, including the Internet

document delivery service a way of obtaining books, journals, academic articles and other

publications not available locally

**E** (Edge – Enhanced Data rates for GSM Evolution) provides somewhat

faster data transfer rates than GPRS, but slower than 3G

export (data) transfer electronic data out of a database or document in a format

that can be used by other programs

**forum** a group of people using the Internet to exchange ideas and discuss

specific issues that are of common importance to them

**genre** a classification of literature according to the style of writing: it can be

fiction, non-fiction, prose, poetry or media

**HDMI** high-definition multimedia interface; a digital audio and video

connection interface

hyperlink a hypertext link to another location or file; activated by clicking on a

highlighted/coloured/underlined word or icon

ICT Information and Communications Technology

**ICT literacy** the ability to effectively use computers and other digital devices

import (data) transfer electronic data into a database or document

**information literacy** the ability to find and use information effectively and appropriately

**Intellectual property** intangible property that is the result of creativity (such as patents or

trademarks or copyrights). Also see plagiarism

**Internet** a computer network consisting of a worldwide network of computer

networks to facilitate data transmission and exchange

**legend** a brief description accompanying a chart

mail merge using a file (or database) of names and addresses, together with a

template document, to produce multiple copies of a letter, each

personally addressed to a different recipient

media the means to communicate information

media literacy the ability to understand how media work, how they produce

meanings, how they are organised, and how to use them wisely

**netiquette** Internet etiquette, courtesy and consideration for others while using

shared services, social media, mailing lists, etc.

**news groups** a collection of messages about a particular topic accessed over the

Internet; the same as a forum, but often members need a special

reader to access the content

**page orientation** the direction in which a page is displayed or printed – portrait

(vertical) or landscape (horizontal)

**plagiarism** using another person's words or ideas without giving credit to *them*.

Also see intellectual property

podcast an audio file that can be downloaded and listened to on a variety of

devices, e.g. a radio programme that has already aired in the past

poll a survey in which people are asked their opinions about something

portal an Internet site providing access or links to other sites

presentation software a computer software package used to display information, normally in

the form of a slide show - which typically consists of a combination of

text and graphics

QR code (abbreviated from Quick Response Code) a machine-readable code

consisting of an array of black and white squares, typically used for storing URLs or other information for reading by the camera on a

smartphone

repository a mechanism for managing and storing digital content, can be shared

or private

**router** a device that forwards data packets between computer networks

**scripting language** a programming language that supports scripts. Scripts are usually

short computer programs that do steps that could be done one at a time by a person. This automates a job to make it easier and more reliable. A scripting language is often a simpler language, and easier to learn than other programming languages, but still can do many

things

**social networks** Internet and mobile technologies for interactive networking, sharing

information in a variety of formats

template a sample document that already has some details in place (e.g. in a

spreadsheet the headings and formulae are already entered and

formatted)

**URL** Uniform Resource Locator; the address of a web page on the World

Wide Web

**Vlog** a personal website or social media account where a person regularly

posts short videos

**VoIP** (Voice over Internet Protocol) – the hardware and software that

enables people to use the Internet as a transmission medium for

telephone calls

web page a smaller part of a larger website usually containing more specific

information

website a collection of web pages with information on a subject

**WWW** World Wide Web – a computer network consisting of a collection of

Internet sites that offer text, graphics, sound and animation resources

using the hypertext transfer protocol; part of the Internet



## The National Institute for Educational Development

P/Bag 2034 Okahandja NAMIBIA

**Telephone:** +264 62 509 000 **Facsimile:** +264 62 509 073

E-mail: info@nied.edu.na

Website: http://www.nied.edu.na