Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

SENIOR SECONDARY PHASE

INFORMATION AND COMMUNICATION SYLLABUS

GRADES 10 - 11

FOR IMPLEMENTATION:
GRADE 10 IN 2019
GRADE 11 IN 2020

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

Information and Communication SS Syllabus Grades 10 - 11

ISBN: 978-99916-66-70-9

Printed by NIED

Publication date: 2018

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1. INTRODUCTION

This Senior Secondary syllabus for Information and Communication is designed as a two-year course. 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 to 12) and at equivalent stages of non-formal education, as a part of life-long 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 21st 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 video clip can be developed as a practical project for Biology.

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

5. LEARNING CONTENT

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
THEME 1 MEDIA LITERACY		
1.1 The culture of the media environment and interaction therewith	• understand the extent of civic participation	• identify the expectations of the audience / consumer
	• have the skill to interact with media providers	• use appropriate channels of public interaction
	• appreciate the role of the editor	• express the need for - editorial independence - human rights • identify the conditions needed for the above
	• 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	• analyse and identify representation / misrepresentation based upon - gender - race - religion - sexual orientation - culture - economic status - political affiliation - marital status - age - physical ability • critically analyse and appraise the following media types: - text - images - audio - video

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
1.2 Evaluation of media content in a variety of formats (continued)	• understand how to apply critical thinking to make informed decisions about media content (continued)	• evaluate the influence on society of the above • analyse and evaluate the extent and influence of social media • recognise prejudice, deception and manipulation • analyse the reliability and validity of media - newspapers - radio and TV - magazines - digital media - blogs / vlogs - forums - social media
1.3 Media ethics	• be aware of the ethical responsibility of generators and consumers of media	• explore the professional codes for journalistic standards. i.a. - transparency - accountability and responsibility - accuracy - objectivity - empathy • debate about the ethics of different media types - people media - newspapers - magazines - books - digital media - advertisements - social media

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
1.3 Media ethics (continued)	• be aware of the ethical responsibility of generators and consumers of media (continued)	• understand how different governance styles impact upon the rights and ethics of journalism - democracy - dictatorship • investigate whether Namibian journalism adheres to the ideals of journalism worldwide • debate about the role of public interest in journalism
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 - school newspaper / news letter - a blog • use Google tools to create interactive documents and sites aimed at collaboration • use social media to create - an event on Facebook - a broadcast list on WhatsApp - an Instagram account with a specific academic focus

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
THEME 2: INFORMATION LITERACY		
2.1 Multiple forms of information sources	• know about a variety of information sources	• successfully locate and utilise information from - books - pamphlets - brochures - newspapers - newsletters - magazines - maps - atlases - museums - archives - oral information - encyclopaedias - meetings - yearbooks - academic journals - Internet

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
2.1 Multiple forms of information sources (continued)	• understand and appreciate the importance of the library	• identify and use different services offered by their own (school) and other libraries - public library - Ministerial libraries - archives - digital libraries • investigate the scope, content and organisation of information access tools - Dewy Decimal Classification (DDC) - sub-classes (1st and 2nd levels) - investigate the constant upgrading of the DDC
	• appreciate literature	• explore and differentiate between various genres
2.2 The need to access information	• understand the need to access information	• identify information needs
	• know the principles needed for an information task	• develop a research statement • determine the extent of the information needed • develop data collection tools - forms - polls - interviews (design)

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
2.3 Locating and accessing information	• know the principles needed for an information task	• obtain information using various methods and tools • conduct interviews • use the tools developed in 2.2 to obtain information • analyse and interpret the data obtained from interviews, forms, polls • use cross-references to locate additional information • take notes using guided research forms to extract relevant information • use advanced search strategies (online and otherwise)
	• use appropriate services to retrieve information	• enrol for an open online course (e.g. ALISON.com, coursera.org) • join forums, news groups and other communities on the Internet • use appropriate services - institutional research offices - community resources - experts and practitioners - document delivery services
	• know the terminology associated with online searches	• explain the following terms: - Internet - World Wide Web (WWW) - URL - website - web page - cloud computing - netiquette

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
2.4 Assessing the usefulness and relevance of information	• know how to critically evaluate information and its sources	• recognise inadequacies or gaps in information • trace information through citations • evaluate and recognise - currentness, reliability and validity of information - credibility of author and publisher - authority of sources - credibility of citations and sources - misrepresentation - bias - the impact of advertising on consumers - political pressure - emotional appeals (e.g. peer pressure, religious rallies) • investigate similarities and differences between traditional and digital media • follow a three-thronged approach (triangulation) • realise the importance of using recognised sources of information (e.g. Wikipedia not acceptable)

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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	• create repositories using IT tools and applications - file and folder management - database - Pinterest - Google tools
2.6 The ethical use of information	• know ethical procedures while using, creating and sharing information	• recognise the importance of - copyright and intellectual property - privacy - citation - acknowledgements - bibliography - the consequences of plagiarism
	• 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 *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
2.7 Communication of information	• have the skill to communicate information effectively and appropriately using a variety of skills	• use a range of appropriate information technology (IT) applications as well as other tools to create a product: - publishing software - word processors - presentation software - spreadsheets - editing software - podcasts - blogs - Voice over Internet Protocol (VoIP) (e.g. Skype) - mobile apps - billboards - banners - reports - posters - videos (post to YouTube) • effectively use online collaboration tools - Dropbox - Google Drive - OneDrive - e-mail groups (e.g. Google Groups) • create QR codes • access information via QR codes

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *Learners should be able to:*
2.8 ICT skills for the processing of information *	• understand ICT and know the equipment associated with it	• identify and use various - storage devices - mobile devices - gadgets e.g. Global Positioning System (GPS), MP3 player - wearable tech - ports e.g. High-Definition Multimedia Interface (HDMI) • identify hardware needed for connecting to the Internet - modem - router - Wireless Application Protocol (WAP) - wireless devices • describe various telecommunications technologies - wireless fidelity (Wi-Fi) - mobile apps - 3rd Generation (3G) - 4th Generation (4G) - 5th Generation (5G) - Edge (E) - cell phone banking - General Packet Radio Services (GPRS)

* **Please note that ICT skills listed in previous phases should be revisited**

THEMES AND TOPICS	**GENERAL OBJECTIVES** *Learners will:*	**SPECIFIC OBJECTIVES** *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: **word processing**	• perform advanced tasks: - Table of Contents (ToC) - review features (e.g. track changes and comments) - find and replace - advanced formatting (e.g. format painter, clear formats) - mail merge - page and section breaks - page numbering - various orientations in one document - increase and decrease indents - borders and shading - watermark - text wrapping - insert an index - insert a screenshot - image manipulation - macros - referencing
	• understand the use of appropriate technology for educational and personal goals: **spreadsheets**	• describe spreadsheets and their features • change the defaults to: - language (English UK) - page layout (cm) • apply page setup features - margins - orientation

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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** (continued)	• distinguish between - labels - values - formulae - functions • add, name and rename worksheets • select, move, copy and delete content • insert rows/columns • use the fill command/technique • sort data • format cells, a range of cells or a worksheet in terms of - currency - numbers - text - date/time - percentage • adjust column width and row height • align text • change font type, size and style • merge and unmerge cells • apply borders • wrap text • apply conditional formatting

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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** (continued)	• use pre-defined functions - SUM - AVERAGE - MAX & MIN - COUNT - simple IF • create own formulae • create a template with text and formulae and/or functions, e.g. invoice, order form • apply - cell addressing - absolute referencing • create a chart or graph using data in a worksheet • modify or format the chart/graph using the following features: - different types - titles - data ranges - labels - legends - size - colour

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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** (continued)	• apply the following features in spreadsheets: - paste special - filter - search - insert graphics - change text direction - freeze panes - hide or unhide rows/columns - other features as needed
	• understand the use of appropriate technology for educational and personal goals: **editing software**	• use appropriate graphics editing software to produce a product - photo editing - video editing • post edited videos to YouTube
	• understand the use of appropriate technology for educational and personal goals: **database**	• describe the following terms: - table - record - field - primary key - database file • explain the different types of fields

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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: **database** (continued)	• explain the difference between design view, form view, query view and report view • create a database file • create table(s) in a database • change field width in a database • add fields in a database • delete fields from a database • change field types in a database • create forms for a database to perform the following tasks: - data entry only - search and display data only • enter data in a database file using forms only • create a select query • create reports from a database • apply data migration techniques in a database (import and export)

THEMES AND TOPICS	GENERAL OBJECTIVES *Learners will:*	SPECIFIC OBJECTIVES *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)**	• access visual programming platforms - tynker (www.tynker.com) - Codecademy • identify and use various coding tools - Android studio - LiveCode - App inventor - Hypertext Markup Language 5 (HTML5) • demonstrate an understanding of scripting languages and their use - JavaScript - JQuery - VBscript (Microsoft Visual Basic Scripting Edition) • understand programming concepts - sequencing - repetition - conditional logic • apply modular techniques in coding activities
2.9 Social implications of using ICT	• be aware of the consequences of using ICT	• debate about the impact (both positive and negative) of ICT on the community, the country and the world • identify and explain cyberfraud • demonstrate good password principles • propose how one could protect devices and computer systems in a variety of environments against digital threats

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 Assessment

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.

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 G, where A* is the highest and G 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 Grades 10 to 11 class-based assessment contributes 100% to the final mark.

Types of 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 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: http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/media-and-information-literacy-curriculum-for-teachers/

ANNEXE 1: GLOSSARY OF TERMS

3G	(short for 3rd 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 4th Generation) is a communications standard intended to replace 3G, delivering Internet access at a much higher speed
5G	(short for 5th 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)
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