

APPLIED GEOLOGY SUBJECT AREA GROUP

Tuning Africa 2

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Summary

- In the working group “Applied Geology” we suggested a review of the generic competencies and listed the specific competencies. As a starting point, special emphasis was placed on the definition of the concept “Applied Geology”. Our work ended by a discussion on some elements which are directly related to the Consultation process.

Definition of Applied Geology

❖ Applied Geology deals with the application of geological knowledge, principles and techniques in order to solve problems

in:

- Natural resources exploration and exploitation
- Geotechnics
- Environment protection
- Geohazards

Generic Competencies: Analysis of Consultation results

- ❖ After having looked at the 18 competencies listed in Table (1), agreed during the Tuning Africa Phase I, the members of the group accepted those generic competencies. In addition, the members of the group have proposed a new reformulation of some
- ❖ It is up to the Tuning Family to approved in the General Assembly and to provide the latest review list.

List of Generic Competencies(group proposition)

Table (1) List of Generic Competencies

1	Ability for conceptual thinking, analysis and synthesis
2	<u>Ability to work professionally with respect to</u> Professionalism, ethical values and commitment to UBUNTU*
3	Capacity for critical evaluation and self-awareness <u>self-awareness</u>
4	Ability to translate knowledge into practice
5	<u>Ability to take relevant and objective decisions</u> Objective decision making and as well as <u>the capacity of proposing</u> practical cost effective problem solving
6	Capacity to use innovative and appropriate technologies
7	Ability to communicate effectively in official /national and <u>and</u> -local language
8	Ability to learn to learn and capacity for lifelong learning
9	<u>Ability to demonstrate</u> F <u>flexibility and,</u> adaptability and ability to anticipate and respond to new situations
10	Ability for creative and innovative thinking
11	<u>Capacity to demonstrate</u> L <u>Leadership, management and team work skills</u> <u>professionally</u>
12	<u>Ability to</u> C <u>communicate effectively</u> ion and <u>demonstrate</u> interpersonal skills
13	<u>Ability to include</u> E <u>environmental</u> <u>awareness</u> and economic consciousness <u>in professional decision making</u>
14	Ability to work in an intra and intercultural and/or international context
15	Ability <u>to take initiatives and</u> to work independently
16	Ability to evaluate, review and enhance quality
17	<u>Ability to manifest</u> S <u>self-confidence</u> self-confidence and <u>translate knowledge into practice,</u> <u>with an</u> entrepreneurial spirit and skills
18	Commitment to preserve and add value to the African identities, <u>diversity</u> and cultural heritage

Specific competencies

Table (2) Applied geology Specific Competencies

1	Ability to apply earth sciences knowledge and techniques to design a mining engineering project
2	Ability to find, characterise and estimate natural resources
3	Ability to understand the origin and the evolution of earth and its components
4	Ability to collect, map, analyse and interpret geological data using various Geoscientific techniques
5	Ability to use methods and techniques of natural resources exploration and exploitation
6	Ability to evaluate environmental impact of natural resources exploitation
7	Ability to conduct geotechnical site investigation
8	Ability to identify the genesis, types and uses of geological materials
9	Ability to use and/or develop modern analytical and numerical techniques in geological solving problems
10	Ability to evaluate socio-economic impacts of geological resources and their utilisation
11	Ability to monitor, assess and plan risk mitigation management in case of Geohazards
12	Ability to implement health and safety legislation in geological resources exploitation
13	Ability to use geological projects for sustainable development
14	Perceiving and understanding the time-space dimension of geological processes and their effects on the planet
15	Ability to contribute with the knowledge on georesources for engineering projects
16	Ability to demonstrate knowledgeable geoscientific expertize in entrepreneurial and managerial skills
17	Ability to carry out field geological and laboratory investigations based on geoscientific standard procedures and code of practice

Specific competencies

- ❖ We leave this list open to further updates. The specific competencies listed above are common to all fields of Applied Geology which come in the specialization in Master.

- ❖ At the BSc level, all are likely needed.

Consultation process

- ❖ The group members decided to do the consultation as soon as possible because in some areas, e.g. East and Southern African region where there is too much rain from December to February so that mining activities are reduced. This results on holidays for number of professionals.

Consultation process (Con't)

❖ Other raised questions are:

- Might we have an Arabic version of the consultation file in some country where most students have only Arabic as language
- Should we also take into account the work experience of the persons to be consulted
- Problems of internet access in some areas

Consultation process (Con't)

- Some countries may go for more than 30 persons in each category to compensate those who cannot reach it.
- Who will be contacted: Answer: the CEO or Director Manager. It is up to him to choose in his company the best person appointed to fill in the consultation.
- Companies' leaders usually do not accept to attend invitations from universities. We have to move to them anyway but some are based far from universities.

- Thank you for your Kind attention