

Application of Knowledge

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Description of Element

- a. The ability to review, present, and critically evaluate quantitative and qualitative information to
 - i. develop lines of argument
 - ii. make sound judgements in accordance with the major theories, concepts, and methods of the subject(s) of study
 - iii. apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline
 - iv. where appropriate, use this knowledge in the creative process
- b. The ability to use a basic range of established techniques to
 - i. initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information
 - ii. propose solutions
 - iii. frame appropriate questions for the purposes of solving a problem
 - iv. solve a problem or create a new work
- c. The ability to make use of scholarly reviews and primary sources

Interpretation

The application of knowledge involves putting to use the theories, methods, techniques and creative processes of the subject area in order to answer questions, develop new solutions or create new work. As with other benchmarks in the Degree Level Standard, the emphasis is on developing coherent arguments based on gathered evidence. This evidence may come from observations, collected data, or a review of the literature. Students are expected not only to collect, interpret and use information, but also to evaluate its quality, relevance and appropriateness.

- Are students taught how to interpret and evaluate primary sources (e.g. journal articles, case studies, reviews, reports, white papers, patents etc.)?
- Are assessments given that require students to first define a problem or pose a

question?

- Are connections drawn between the main theories of the subject area, the methods used to develop those theories and the application of those methods to solve new problems?
- Are students given the opportunity to collect and analyze original data?
- Are students given the opportunity to create new work using the knowledge gathered and accumulated skills?
- Do assessments require the use of primary sources or scholarly reviews?

Sample Learning Outcomes

Apply project control theory and techniques to the development of software and related development projects. (BTS730)

Analyze complex business situations through the use of case studies to develop and evaluate alternatives and recommend courses of action. (IAF831)

Evaluate published research studies to determine the accuracy, validity, reliability, generalizability and/or transferability of the research findings. (INR300)

Resources

[A Practical Guide to Course-based Undergraduate Research Experiences](#) from the University of San Diego

A guide to the value, structure, implementation and evaluation of student undergraduate research projects.

[Teaching Critical Reading](#) from the University of Berkeley

A comprehensive teaching guide for Graduate Student Instructors on how to teach critical reading to undergraduate students. Includes strategies and examples from a wide variety of disciplines.

Seneca Core Literacies – [Creative Thinking](#); [Critical Thinking and Problem Solving](#); [Information Literacy](#); [Inquiry and Analysis](#); [Quantitative Literacy](#)

tags : application-of-knowledge, degree-level, degree-level-teaching, degree-standard, standard, teach, teaching-and-learning, teaching-and-learning-centre