

2.2 Refresher courses

- All faculty must be exposed to a common underlying philosophical foundation across disciplines in the IKS.
- At least one to two lectures on the fundamental vocabulary of IKS must be conducted to familiarize faculty with the common terms used in IKS.
- A strong emphasis must be placed on providing exposure to the primary texts (Sutra Text) of IKS which is required for deeper understanding.
- The refresher courses must focus on the development of courses under the following categories:
 - a. *Multidisciplinary courses:*** These courses should serve faculty from at least two disciplines that are closely related. The courses should provide a greater depth and allow the faculty to explore the interdisciplinary aspects of the IKS and to appreciate the cross-disciplinary connections. The primary aim of these courses is to sensitize teachers about the possible interdisciplinary education which is a key aspect of the NEP 2020. As an example, a course on mathematics and astronomy could be conducted and discuss the simultaneous development of mathematical tools and astronomy models in India. This course could serve the needs of faculty in mathematics and astronomy disciplines. A second example course could be a course on civil engineering, architectural engineering and town planning serving the disciplines of civil engineering, architecture and town planning.
 - b. *Discipline-specific courses:*** The discipline specific courses must be focused on a particular subject. These courses are designed to provide a comprehensive understanding of the discipline in the IKS. The course should be usually designed using multiple source texts as the reference material. For example, a course on chemistry could use Rasaratnakara, Rasaratnasamucchaya, Sarveshwararasayana etc. The ayurvedic concepts of Dravyaguna shastra with the underlying philosophy from the Vaisheshika-Darshana can be taught together with their correlations to biochemistry, biophysics, and process engineering. A course for chemistry students can focus on the aspects related to the herbo-metal and mineral substances from a Dravyaguna perspective while a course for Physics students can focus more on the classification of materials as per the Vaisheshika-Darshana. Designing the course content is a challenge

that needs to be carefully thought out by a team of experts in both traditional shastras and modern subjects as most of the IKS subjects do not map cleanly to their modern counterparts. For example, a chemistry-related book such as Rasaratnakara will have a discussion on laboratory construction and furnace construction in addition to discussing purely the chemistry aspects.

- c. ***Specialized courses:*** Specialized courses are to be designed for providing in-depth and comprehensive knowledge of a particular text. These courses should be open to those faculty who would like to develop specific expertise in a subject on a particular text and must be taught preferably in person by the experts. The courses must be designed to convey the primary purpose of the text along with objective, layout, concise and precise way (*sutraic*) of presenting ideas, content, etc. It may be envisioned that these courses may only be taught at particular centers where experts are available, and these courses could become the ‘USP’ of a particular center.

Courses must be developed in a range of subjects across natural sciences, social sciences, humanities, engineering, medicine, agriculture, community knowledge systems, fine and performing arts, vocational skills, etc, which have IKS content. The courses must have a clear mapping of the traditional subjects in IKS with the modern subjects such as chemistry, mathematics, physics, agriculture, etc.

