

Targeting audience and tailoring courses using the ISCB Competency Framework: An application survey from RSG-Brazil Educational Committee

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Abstract

Reactivated in 2015, the ISCB Regional Student Group Brazil (RSG-Brazil) is a vibrant student network with a mission to aid the training of the next-generation of bioinformaticians and computational biologists among Brazil. This student group has the support of the Student Council from the International Society of Computational Biology (ISCB-SC), which is dedicated to advancing the scientific understanding of living systems through computation. In view of its mission, the Educational Committee of RSG-Brazil released an ongoing survey, released in April of 2018, to identify complementary needs on the ongoing formation in the field of bioinformatics and computational biology. In this work, we re-devised the ISCB competency framework, an international effort that identified 16 core competencies required by professional working in the fields related to computational biology, to only 5 categories in order to increase the community engagement on the form, as well as reduce the time demands for respondents. Respondents were asked to declare interest in learning more about one or more of the 9 pre-defined topics of Bioinformatics shown in the form, or to make new suggestions. Also, target audience was asked to identify themselves within one of the three profiles of Bioinformatics audience and their roles or subcategories, as defined by the ISCB Competency Framework (Bioinformatics user, Bioinformatics scientist and Bioinformatics developer, and their subcategories). The survey was released in May of 2018 and has so far collected 216 responses, from 21 (out of 26) Brazil states, with over 85% engagement from undergrad or graduate students. We have found that most of the respondents declared as Bioinformatics users, working in academia. We also have identified particularities in the interest in topics by country region and by Bioinformatics profile. With this effort of the Educational Committee, we expect to establish partnership between the Regional Student Group Brazil and universities/companies to delivery tailored courses to the student community of computational biology in Brazil.

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