## INTEGRATION OF EDUCATIONAL PROGRAMS FOR SUCCESSFUL START OF A PROFESSIONAL CAREER.

## Zelikin N.V.

Lomonosov Moscow State University, Faculty of Mechanics and Mathematics. Russia, 119991, Moscow, Leninskie Gory, 1. E-mail: n-zl@yandex.ru

The integration processes, aimed to ensure a good start for a specialist, are crucial at the final stage of preparation for professional work. It is the most important for the professional areas, where the research or design objects and corresponding scientific or engineering tools and methods are very complex and need specific interdisciplinary approach. We see two main means to deal with the problem. First, each university student should have an opportunity to select courses from different faculties, of specific appropriate levels, both from the budget programs (free) or as a paid additional training. And secondly, a wider personal support and professional guidance of undergraduates and graduate students is needed, with direct and active business participation in shaping the future employees' "educational portfolio", which be put as "individual graduate program" with technical and financial support from the employer. If we consider a common job finding procedure for university graduate in current Russia, we will soon discover it is rather spontaneous and uncertain one. First, one needs to make a critical choice very fast, finding and applying for available vacancies. Secondly, there is a blank resume problem. Lastly, a candidate is usually judged by his or her general qualities only. There is almost nothing job-specific in such hiring process. Then, as a rule, every novice has to get familiar with a lot of new material, and gain others in a workgroup without professional guidance and support. The main idea of pre-graduation programs is to close the specific knowledge gaps in a highly professional university environment. MSU initiated a wide range of interfaculty and interdisciplinary courses aimed to provide students a broader choice of additional knowledge, both for those who wish to add to standard curriculum and for those who are concerned with near future, when everyone needs to find a job, based on freshly attained knowledge. Leading lecturers of all 40 MSU faculties deliver more than 150 interfaculty courses, attended 10000 students by each semester (see http://new.mfk.msu.ru/). We see MSU IFC program as a good starting point of completely new process, which helps young people to find his or her natural inclination, to start some final adjustment and preparation to a consciously chosen specific job field. We believe that the center of educational motivation lies in business demand. There is strong case for integration of higher education and business, when the employer is actively looking for the best talents and enthusiasts for him/herself, providing support and guidance to shorten transition period. Personal stipends, education loans refunds and undergraduate research support are strong stimuli. Timely exposure to specific corporate culture helps to prepare to teamwork. The mutual awareness and cooperation between students, educators and business representatives are key factors for successful professional development.