One of the most important aspects of modern technology has managed in the area of manufacturing systems and technologies are flexible manufacturing systems. In a corporation, the aim is to hold inventory levels at a minimum level, to plan production by considering a lot of parameters, manufacturing high-quality products, and manufacturing the desired goods on time, place, and at an appropriate cost. Flexible Manufacturing Systems have added some advantages to corporations, due to its manufacturing and marketing advantages. An important component in design and development of flexibility in a production system is the establishment of appropriate flexibility measures. A flexibility measure or a set of flexibility measures is used to determine the level of flexibility in a typical production system at a given situation. Although there is economical un-stability, insufficient industry structure or to high inventory levels, high technologies must be used to respond to changing demands, to produce high-quality goods, to manufacture products at the appropriate price in Macedonia. Macedonia needs to use and manufacture these modern technologies to compete and survive in international markets.

**Keywords:** Flexible manufacturing system, Production system, Operations management, Advanced manufacturing technologies, Competences

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**ENVIRONMENT EDUCATION IN TURKEY**

Yuksel Arslan, Nurdan Gokhan Taran, Nihat Kenk

There are ongoing training requirements of people throughout their lives. This requirement is at an extreme level with regard to the environment. First, we can summarize the world's cultural and ecological stages of human development. Early hunter-gatherers are controlled by nature. Next, human-nature affects the environment, but they cannot control. Agricultural people are against the human nature and human began to control. Industry people increased control over nature and the nature are adversely affected the nature. The nature of the world that is in harmony with nature and understanding of the nature to intervene. The environmental movement in Turkey was begun in the second half of the 1970s. During this period, the first time, if not powerful and effective, although it is not in the name of environmental values begun to be replaced removed to reveal the reactions. Environmental education: improving the environment in all sectors of public awareness, grown in environmentally conscious individuals to ensure the settlement of persistent behavior in these individuals, protection of nature, historical and cultural value, ensuring active participation in environmental activities is defined as taking part in the solution of environmental problems. Article 56 of the 1982 Constitution: “Everyone has the right to a healthy and balanced environment, improve the environment, protect the environmental health and to prevent pollution of the environment and citizens is the duty of the state” is clearly contained in our Constitution, the environment we live under this Article, the right to live in a more beautiful setting, it is necessary to ensure that the owners of all individuals. Environmental consciousness of the intellectual, emotional and behavioral dimensions are. In other words, environmental awareness; environmental decisions, the principles, the idea that contain comments, the behavior is transferred to life these ideas and is composed of various emotions regarding all this. Such development of a comprehensive concept is not, of course, it consists of a simple process. gained momentum with the introduction of human beings interacts with the environment this process continues throughout life. In parallel to developing environmental consciousness, personality development is affected by the interaction of various factors.

**Keywords:** Education, Environment, Environmentalist

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**ESTIMATING THE QUANTITATIVE NORMS OF PHYSIOLOGY TEST EXAM FOR MEDICAL STUDENTS: ANALYSIS BASED ON THE RESULTS OF PHYSICIAN FINAL EXAMINATION**

Mariusz Pancerzy, Łukasz Samoliński, Aleksander Zarzecki, Jarosława Belowska, Joanna Galią

Multiple choice questions (MCQs) are the most frequent method of evaluating applied when assessing the learning outcomes of the students of medicine, particularly in the area of basic sciences. However, exam tests typically used in medical education are not normally standardised tools, which makes it difficult to determine any quantitative norm for them, i.e., the cut-off score for passed/fail attempts. An attempt to assess an optimal passing score for the test exam in Physiology designed for the students of the second year of medicine at the Warsaw Medical University (MWW). The results in the exam in Physiology of four years of students (N = 1425) who are taught at the faculty of medicine at MWW between 2007-08-2010-11 were analysed. The results in Physician Final Examination (PFE) were used as the external criterion following the completion of medical studies. Chances of passing PFE (odds ratio, OR) were calculated using the model of non-linear estimation of logistic regression. The score obtained in the exam in Physiology was used as a predictor. The statistical cut-off point was calculated using the methods of statistical description and Receiver Operating Characteristics (ROC) curves. All calculations were performed in a STATISTICA 12.5 software, where the level of relevance assumed a priori was α = 0.05. The results of logistic regression show that the score a student achieved in the exam in Physiology is a relevant predictor of success while taking the PFE exam at graduation (OR = 1.074; P

**Keywords:** Educational measurement, Validation, Assessing student achievement, Medical education

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**EVALUATION OF AN ANKLE-FOOT-ORTHOSIS DESIGNED FOR CHILDREN WITH SPINA BIFIDA: A GAIT ANALYSIS STUDY**

Hakan Kemal Sarımen, Ekin Nazif Akalan, Yunus Ziya Arslan

Spina bifida is a birth defect which is caused by the incomplete closing of the backbone and membranes around the spinal cord. Children with spina bifida have motor skill problems, as well as problems with a various level of attention, insensitivity, memory and organization. Motor skill problems especially influence the ambulation patterns of children. In order to control the ankle motion and provide an optimal gait skill in patients with spina bifida, different types of ankle-foot-orthoses (AFOs) were designed and manufactured. AFOs are the externally applied assistive devices and prescribed to the patients with neuromuscular dysfunctions to improve the abnormal lower limb motor functions. In this study, a patient-specific, modified AFO was designed and manufactured in accordance with both the patient's needs and the results of the mechanical analysis of the conventionally produced AFO. To quantitatively observe the effect of the novel design AFOs on gait patterns of patient with spina bifida, gait analysis of a young patient was carried out. In the analysis, temporal-spatial, kinematic and kinetic parameters were measured. Gait recordings were conducted for three different cases, i.e. walking (I) without orthosis, (II) with classical design AFO and (III) with newly designed AFO. Merits and shortcomings of the novel AFO were comparatively evaluated and discussed in the paper.

**Keywords:** Ankle-foot-orthosis, Finite element analysis, Gait analysis, Spina bifida