Zusätzliche Module
in der Doppelabschlussoption

Additional modules available in the double degree option

Module sheet

Title of module	**Introductory Course into German Culture and Language**
Module Coordinator	**Professor Dr. Beate Brand-Saberi**

Credit points	5	**Semester in which the module is taught**	1
Contact hours	3	**Workload**	150 hours

Lecturer(s)	Brand-Saberi, Ninfa Fragale, Center for Foreign Languages (ZFA)
Type of teaching	Active Participation, Interaction in seminars; Visits to German families; Multiple Choice Exam for culture part and Written Exam for language part
Relation to curriculum	Optional; elective
Recommended prerequisites	The subject is taught as a first-year level course for international students who study in China. Prerequisite is not essential.
Aims	The students will gain a fundamental knowledge and understanding of the German culture, and acquire basic language competence.
Learning outcome	Knowledge: The students have gained knowledge about German culture, including philosophy and religion, clothing, food, housing, etiquette, institutions and social customs, science and technology. Skills: Students are familiar with the geography of Germany, the most important German philosophers, have learned traditional German songs and poems, the background of religious and general bank holidays, they can read and pronounce German words correctly, they can communicate in everyday life. Competencies: The students are able to act according to the German etiquette in everyday life, communicate well with their teammates, know and observe German customs Besides, they will also have gained in responsibility and self-organization.
Contents of module	Lecture contents comprise: German geography, sights of interest, regional food Introduction of selected German philosophers German literature and art Traditional Christian holidays German etiquette, institutions and social customs Organization of science and technology in Germany Excursions to German families or to important buildings

Study and examination requirements; Forms of examination	Students performance during class, participation in practical work, and attendance are important. The assessment will be done on the basis of writing a paper related to the course.
Literature	http://www.make-it-in-germany.com/en/for-qualified-professionals/discover-germany/introduction-to-germany/culture https://www.uni-frankfurt.de/57952017/Introduction-to-German-Culture-and-Customs.pdf Schritte 1. Deutsch als Fremdsprache: Schritte 1 + 2 Intensivtrainer: Deutsch als Fremdsprache, Niveau A1 von Daniela Niebisch und Franz Specht von Hueber

Module sheet

Title of module	**Tissue Engineering and Regenerative Medicine**
Course instructor	**Prof. Dr. Xu-Feng Qi, Jian-Shu Chen, Yan-Hong Yu, Shan-Shan Feng**

Credit points	5	**Semester in which the module is taught**	3
Contact hours	3	**Workload**	150

Lecturer(s)	All PIs from the associated labs
Type of teaching	The module "Tissue Engineering and Regenerative Medicine" consists of normal lecture "Tissue Engineering and Regenerative Medicine" and a series of workshops. Normal lecture: Lecture hours per week, Seminar 1 hour per week Workshop: Practical work: 13 hours per week, Seminar 1 hour per week
Relation to curriculum	Compulsory; elective
Recommended prerequisites	At least one of the followings: Cellular Biology, General Biochemistry, Genetics or Molecular Biology.
Aims	The course aims to provide an overview of fundamental concepts in tissue engineering and regenerative medicine, from basic regenerative biology to therapeutic applications.
Learning outcome	Knowledge: The students have gained knowledge about the basic and clinical aspects of stem cell, the conversion of stem cell types into a variety of suitable tissues and gain state-of-the-art knowledge on the potential of stem cells for the regeneration of a wide range of tissues and organs. Skills: Students learn to compile, critically analyse and evaluate research results, certain methods of applications to replace damaged or destroyed cells, and the skills required to present and support their findings. Competencies: The students develop their own ideas in this field and be enabled to plan, implement, analyze experiment and present these both orally and in writing.
Contents of module	Normal lecture contents include: Introduction of regenerative biology Tissue and organ regeneration and engineering research Clinical application and industrialization of tissue engineering and regenerative medicine Culture technology of important cells Workshop topics comprise: Gene editing technology Corneal tissue engineering The cilia of the cell

	Lentivirus
Study and examination requirements; Forms of examination	Behavior properly in class, make sure the attendance. Class participation and inclass presentations count for the final grade. No final exam, but a review related to tissue engineering and regenerative medicine should be delivered.
Literature	Bodle, J. C., & Loboa, E. G. (2016). Concise Review: Primary Cilia: Control Centers for Stem Cell Lineage Specification and Potential Targets for Cell-Based Therapies. Stem Cells, 34(6), 1445-1454. doi:10.1002/stem.2341. Clemens van Blitterswijk,Peter Thomsen , Jeffrey Hubbell, Ranieri Cancedda ,and et al.Tissue Engineering.M. 1st Ed,AP, 2008. Deleidi, M., & Yu, C. (2016). Genome editing in pluripotent stem cells: research and therapeutic applications. Biochemical and Biophysical Research Communications, 473(3), 665-674. doi:10.1016/j.bbrc.2016.02.113. Goto, H., Inoko, A., & Inagaki, M. (2013). Cell cycle progression by the repression of primary cilia formation in proliferating cells. Cellular and Molecular Life Sciences, 70(20), 3893-3905. doi: 10.1007/s00018-013-1302-8. Griffith, M., Polisetti, N., Kuffova, L., Gallar, J., Forrester, J., Vemuganti, G. K., & Fuchsluger, T. A. (2012). Regenerative Approaches as Alternatives to Donor Allografting for Restoration of Corneal Function. Ocular Surface, 10(3), 170-183. Jasin, M. (2016). Gene Editing 20 Years Later. In T. Cathomen, M. Hirsch, & M. Porteus (Eds.), Genome Editing: The Next Step in Gene Therapy (Vol. 895, pp. 1-14). Berlin: Springer-Verlag Berlin. Joiner, A. M., Green, W. W., McIntyre, J. C., Allen, B. L., Schwob, J. E., & Martens, J. R. (2015). Primary Cilia on Horizontal Basal Cells Regulate Regeneration of the Olfactory Epithelium. Journal of Neuroscience, 35(40), 13761-13772. doi:10.1523/jneurosci.1708-15.2015. Robert Lanza, Robert Langer and Joseph P. Vacanti . Principles of Tissue Engineering.M, 4th Ed, AP, 2013. Li, Z., Xie, M. B., Li, Y., Ma, Y., Li, J. S., & Dai, F. Y. (2016). Recent Progress in Tissue Engineering and Regenerative Medicine. Journal of Biomaterials and Tissue Engineering, 6(10), 755-766. doi:10.1166/jbt.2016.1510. Liu, B., Xu, H. F., Miao, J. F., Zhang, A., Kou, X. J., Li, W., Li, K. (2015). CRISPR/Cas: A Faster and More Efficient Gene Editing System. Journal of Nanoscience and Nanotechnology, 15(3), 1946-1959. doi:10.1166/jnn.2015.9832 Lv, B. T., Yuan, W., Xu, S. M., Zhang, T., & Liu, B. F. (2012). Lentivirus-siNgR199 Promotes Axonal Regeneration and Functional Recovery in Rats. International Journal of Neuroscience, 122(3), 133-139. doi:10.3109/00207454.2011.633720. Syed-Picard, F. N., Du, Y., Lathrop, K. L., Mann, M. M., Funderburgh, M. L., & Funderburgh, J. L. (2015). Dental Pulp Stem Cells: A New Cellular Resource for Corneal Stromal Regeneration. Stem Cells Translational Medicine, 4(3), 276-285. doi:10.5966/sctm.2014-0115. Tuinstra, H. M., Aviles, M. O., Shin, S., Holland, S. J., Zelivyanskaya, M. L., Fast, A. G., Shea, L. D. (2012). Multifunctional, multichannel bridges that deliver neurotrophin encoding lentivirus for regeneration following spinal cord injury. Biomaterials, 33(5), 1618-1626. doi:10.1016/j.biomaterials.2011.11.002.

Module sheet

Title of module	**Language Course- Traditional Chinese Culture**
Course instructor	**Prof. Dr. Yong-Zhong Deng**

Credit points	4	**Semester in which the module is taught**	3
Contact hours	3	**Workload**	150

Lecturer(s)	All PIs from the associated labs
Type of teaching	The module "Traditional Chinese Culture" consists of the lecture "Traditional Chinese Culture", and practical work. Lecture: Lecture 1 hours per week, Seminar 1 hour per week Practical work: Practical work: 13 hours per week, Seminar 1 hour per week
Relation to curriculum	Compulsory; elective
Recommended prerequisites	The subject is taught as a first-year level course for international students who study in China. Prerequisite is not essential.
Aims	The students will gain a fundamental knowledge and understanding of Chinese culture, and acquire some basic traditional skills.
Learning outcome	Knowledge: The students have gained knowledge about traditional Chinese culture, including traditional Chinese philosophy and religion, clothing, food, housing, and transportation, etiquette, institutions and social customs, science and technology. Skills: Students have learned to make Chinese Paper-cutting, Chinese Knot, to distinguish the difference among Eight Chinese Cuisine, to make Dumplings and to sing a traditional Chinese song and dance some of the Chinese traditional dance. Competencies: The students are able to communicate well with their teammates, to gain strong practical ability, finish and present their teamwork. Besides, they will also have gained in responsibility and self-organization.
Contents of module	Lecture contents comprise: Introduction of Traditional Chinese Culture Traditional Chinese literature and art Traditional Chinese philosophy and religion Traditional Chinese clothing, food, housing, and transportation Traditional Chinese etiquette, institutions and social customs Traditional Chinese science and technology Practice includes Chinese Paper-cutting, making Chinese Knot, Dumplings and so on.

Study and examination requirements; Forms of examination	Students performance during class, participation in practical work, and attendance are important. Phone call is not allowed in class. The assessment will be done on the basis of writting a paper related to the course.
Literature	Gong Pengcheng,and et.al. Fifteen lectures of Traditional Chinese Culture,1st Ed, Peking University Press,2006. Zhang Kaizhi, Yu Xiaoning, Li Jianqiu, Liu Xiaoxiang and et al.Traditional Chinese Culture, 3rd Ed,Higher Education Press,2010. Zhang wanhong,and et.al.An Introduction to Chinese Traditional Culture.1st Ed, Beijing Normal University Press,2012. Cao, H. J. (2013). Applied Research of Chinese Traditional Culture in Art and Design. 2013 3rd International Conference on Education and Education Management. G. Lee. Newark, Information Engineering Research Inst, USA. 25: 13-17. Dong, T. X. and Z. Y. Yan (2012). Architectural experiment of the Chinese traditional painting. Sustainable Cities Development and Environment, Pts 1-3. W. J. Yang. Stafa-Zurich, Trans Tech Publications Ltd. 209-211: 145-151. Fong, C. C., Q. Zhang and M. M. Yang (2010). "DNA microarray technology and Traditional Chinese Medicines. Progress in Nutrition 12(1): 6-12. Fu, J. Y., X. Zhang, Y. H. Zhao, D. Z. Chen and M. H. Huang (2012). Global performance of traditional Chinese medicine over three decades. Scientometrics 90(3): 945-958. Huang, P. X. (2016). Application of Traditional Culture in Creation of Chinese Painting. Proceedings of the 2016 International Conference on Education, Sports, Arts and Management Engineering. H. Xu and Z. Zhang. Paris, Atlantis Press. 54: 366-369. Huang, Y. C. (2011). Analyze Chinese Traditional Mathematics' Trait and Origin. Hong Kong, Etp-Engineering Technology Press. Li, J. R. and Y. H. P. Hsieh (2004). Traditional Chinese food technology and cuisine. Asia Pacific Journal of Clinical Nutrition 13(2): 147-155. Li, L. L. (2013). View on Protection of Chinese Traditional Music through Inheritance of Malaysian Chinese Traditional Music. 2013 International Conference on Economic, Business Management and Education Innovation. G. Lee. Singapore, Singapore Management & Sports Science Inst Pte Ltd. 19: 408-411. Liu, J. A. (2015). On the Ancient Chinese Teaching and the Inheritance of the Chinese Traditional Cultures. 2015 Ssr International Conference on Social Sciences and Information. H. A. AbedAlasadi and H. Yaghoubi. Singapore, Singapore Management & Sports Science Inst Pte Ltd. 11: 68-72. Liu, X. J., S. W. Cheng and H. J. Li (2009). Rapid Modeling of Chinese Traditional Architecture Driven by Mapping Data. New York, Ieee. Pan, L. L., Y. K. Liu and J. Guo (2012). The Modern Values of Chinese Traditional Culture. Education and Education Management. J. Hu. Newark, Information Engineering Research Inst, USA. 5: 338-343.