Map of teaching methods of discipline

**«**Genetic engineering and biosafety

(3 credit)

**»**

Graduate «BT05105 biotechnology**»**

(Преподаватель –профессор Кенжебаева С.С.

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| № | The title of discipline | Authors and title of the textbook | Number in the library of KazNU named after al-Farabi | | | | Number after 2000 year | | | |
| main | | addition | | main | | addition | |
| каз. | рус. | каз. | рус. | каз. | рус. | каз. | рус. |
|  | Genetic engineering and biosafety | **Основная:** Plant Biotechnology and GeneticsPrinciples, Techniques and Applications. C. Neal Stewart, Jr., Second edition. Publ. Willey. 2016. 399 P.Molecular Cell Biology, 4th edition Harvey Lodish, Arnold Berk, S Lawrence Zipursky, Paul Matsudaira, David Baltimore, and James Darnell.New York: W. H. Freeman; 2000.  ISBN-10: 0-7167-3136-3   1. Глик Б., Пастернак Дж. Молекулярная биотехнология. М.: Мир, 2002. - 589 с. 2. Калашникова Е.А., Кочиева Е.З., Миронова О.Ю. Практикум по сельскохозяйственно» биотехнологии. - М. :Колос, 2006. - 144 с. 3. Щелкунов С. Н. Генетическая инженерия. — 2. — Новосибирск: Сибирское университетское издательство, 2004. — 496 с. 4. De Jong, R. Enzyme Free Cloning for high throughput gene cloning and expression / R. de Jong, M. Daniёls, R. Kaptein and G. Folkers // J. Struct. Funct. Genomics. — 2006. — V. 7. — P. 109–118. 5. Lee, J. High-throughput T7 LIC vector for introducing C-terminal poly-histidine tags with variable lengths without extra sequences / J. Lee and S. Kim // Prot. Expr. Purif. — 2009. — V. 63. — P. 58–61. 6. Нолтинг Б. Новейшие методы исследования биосистем. - М.:ТЕХНОСФЕРА, 2005. -256 с. 7. Патрушев Л.И.Экспрессия генов. – М.: Наука, 2000, 749 с. 8. Ребриков Д.В., Саматов Г.А., Трофимов Д.Ю. и др. ПЦР в реальном времени. М.: БИНОМ. Лаборатория знаний, 2009. 215 с.   Benzle KA, Finer KR, Marty DM, McHale LK, Goodner BW, Taylor CG, Finer JJ (2015) Isolation and  characterization of novel Agrobacterium strains for soybean and sunflower transformation. Plant Cell Tiss Org Cult 121:71-81.  **Дополнительная:**  Altpeter F, Baisakh N, Beachy R, Bock R, Capell T, Christou P, Daniell H, Datta K, Datta S, Dix PJ, Fauquet C, Huang N, Kohli A, Mooibroek H, Nicholson L, Nguyen TT, Nugent G, Raemakers K, Romano A,  Somers DA, Stoger E, Taylor N, Visser R (2005): Particle bombardment and the genetic enhancement of  crops: myths and realities. Mol Biol 5:305–327.  Zale JM, Agarwal S, Loar S, Steber CM (2009): Evidence for stable transformation of wheat by floral dip in Agrobacterium tumefaciens. Plant Cell Rep 28:903–913.  Rothberg J.M., Leamon J.H. The development and impact of 454 sequencing // Nature Biotech. 2008. V. 26. P. 1117–1124.   1. Shitsukawa N., Tahira C., Kassai K. *et al.* Genetic andepigenetic alteration amongthree homoeologous genes ofa class E MADS box gene in hexaploidwheat //Plant Cell. 2007. V. 19. P. 1723–1737. 2. Mortazavi, BA Williams, K McCue, L Schaeffer, and B Wold (2008). «Mapping and quantifying mammalian transcriptomes by RNA-Seq». *Nature Methods* (5): 621-628. 3. Trapnell C, Pachter L, Salzberg SL (2009). «TopHat: discovering splice junctions with RNA-Seq». *Bioinformatics* (9): 1105-1111. 4. C Trapnell, BA Williams, G Pertea, A Mortazavi, G Kwan, MJ van Baren, SL Salzberg, BJ Wold, and L Pachter (2010). «Transcript assembly and quantification by RNA-Seq reveals unannotated transcripts and isoform switching during cell differentiation». *Nature Biotechnology* (5): 511-515.. |  | 1  1  5  3  1  3  2  1  5  2  1  1  1  1  1  1  1  1 |  |  | 50  1  5 | 3  1  3  2  1  5  2  1  1  1  1  1  1  1  1 |  |  |