**Appendix to matrix for goal achievement

Examples of individual learning outcomes (Doctoral student A)**

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| **INDIVIDUAL LEARNING OUTCOMES** | **ACTIVITIES** |  | REMARKS |
| KNOWLEDGE AND UNDERSTANDING |  |  |
| Demonstrate broad and systematic understanding of the field of research of molecular pathological mechanisms and specialist knowledge in the area of mitochondrial myopathies and alternative splicing.      | Seminars+Journal clubRead *Textbook of Biochemistry with Clinical Correlations* by Thomas M. Devlin.Read *Metabolic Regulation* by Keith N Frayn      |  |  |
| COMPETENCE AND SKILLS |
| Cultivate skills with respect to critically analysing and reviewing previously published research in the field and evaluating the questions that need to be addressed. Proceed to formulating a hypothesis and designing a methodological study to test it.  | Seminars+Journal clubMandatory course in research methodology and philosophy of scienceSupervision at meetings of the research teamThesis and defence |  |  |
| Learn to master and evaluate methods, primarily for molecular and cell biology, required to address the question. Learn to document, analyse and critically review my findings. | Laboratory work, including notesSupervision at meetings of the research teamRed *Alternative pre-mRNA Splicing* *Theory and Protocols* by Stefan Stamm, Chris Smith and Reinhard Luhrmann |  |  |
| *Demonstrate the ability in national and international forums to present and discuss research and findings orally and in writing.* | Seminars+Journal club50% seminarPoster presentationsPresent at Genetic Conference on Rare Diseases in Seville in 2015 |  |  |
| JUDGEMENT AND APPROACH |
| Demonstrate intellectual autonomy and scientific integrity, as well as skills with respect to performing ethical assessments in research, along with in-depth insight into the challenges and limitations of science. | Plan experiments Mandatory course in ethicsLaboratory experiment courseComplete ethical applications for laboratory experimentsThesis and defence |  |  |

**Examples of individual learning outcomes (Doctoral student B)**

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| **INDIVIDUAL LEARNING OUTCOMES** | **ACTIVITIES** | Progress towards goal achieve year by year | REMARKS |
| KNOWLEDGE AND UNDERSTANDING | 0=no; 1=somewhat met/planned2=halfway met 3=almost met 4=met |  |
| Demonstrate broad and systematic understanding of nursing and specifically the field of research of palliative care.  | Remain up to date about scientific journals of nursing and palliative care.. Phenomena in palliative care, 7.5 higher education credits, Literature course, 3 higher education creditsDiscuss the role of palliative care in nursing during seminarsSeminars+Journal clubThesis and defence |  |  |
| COMPETENCE AND SKILLS |
| Demonstrate good skills and competence with respect to analysing, thinking about and presenting findings in accordance with qualitative methods.. | Seminars+Journal clubPresent and defend my own research findings at seminars50% seminarQualitative content analysis, 7.5 higher education creditsCompose scientific materialThesis and defence |  |  |
| Demonstrate competence and skills with respect to presenting and discussing my own research findings and evaluating the research of others. | Present research at national and international conferences.Course in poster productionSeminars+Journal club Thesis and defence |  |  |
| Demonstrate competence and skills with respect to independently working and teaching first and second-cycle courses. | Assist in the supervision of nursing students with bachelor’s essays and at the master’s level.UPL courses |  |  |
| Identify additional needs and knowledge gaps in research. | Identify knowledge gaps for the fourth manuscript. Define knowledge gaps and needs for additional research in the introduction chapter of a compilation thesis. |  |  |
| JUDGEMENT AND APPROACH |
| Evaluate and maintain a scientific approach to my own research findings and critically review research. | Theory of science, 3 higher education credits Course in ethics, 3 higher education creditsComplete ethics applicationsRegularly take part in subject and methodology discussions with the research team and at seminars.Thesis and defence |  |  |

**Example of individual learning outcomes (Doctoral student C)**

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| **INDIVIDUAL LEARNING OUTCOMES** | **ACTIVITIES** |  | REMARKS |
| KNOWLEDGE AND UNDERSTANDING |  |  |
| Demonstrate broad knowledge and systematic understanding of the field of research of physiotherapy, particularly the science of motor skills and the injury mechanisms of the lower extremities, as well as rehabilitation. Focus on motor control and the biomechanics of the knee joint. | SeminarsJournal club Course in motor control. Read*Neuromechanics of Human Movement* (Enoka, 2008)Seminars about Motor Analysis (Qualisys days in Gothenburg) |  |  |
| Familiarity with scientific methodology and measurement and analytical methods in the field of the biomechanics of the lower extremities in general, primarily the knee joint and anterior cruciate ligament. Ability to handle measurement instruments that analyse motor skills, as well as associated software. | Data collection and analysis. Use of measurement and analytical methods, as well as associated software. Read *Using Multivariate Statistics*. |  |  |
| COMPETENCE AND SKILLS |
| Demonstrate skills with respect to scientific analysis as well as independent critical review and assessment of new and complex phenomena, questions and situations in the field of physiotherapy. Cultivate knowledge as a reviewer of scientific articles. | SeminarsJournal club Participating as a review of international scientific articles. Read *Att läsa vetenskapliga artiklar och rapporter – grunden för en evidensbaserad vård* |  |  |
| Demonstrate skills in national and international forums with respect to presenting research findings orally and in writing in the field of physiotherapy in dialogue with the scientific and general community. | Present research findings at national and international conferences. Participate in conferences about physiotherapy related to rehabilitation and biomechanics/science of motor skills.  |  |  |
| JUDGEMENT AND APPROACH |
| . Demonstrate intellectual autonomy and scientific integrity, as well as skills with respect to performing ethical assessments in research. | Course in research ethics. Good Clinical Practice (GCP). Complete ethics application. Plan and prepare data collection. |  |  |