2022 Akita University Faculty of Medicine Syllabus

Category ： 基礎医学 III
Course Title ： Anatomy and Neuroanatomy
Eligible Students ： grade 2 Related Course
Code ： 71563010
Schedule ： week 5 〜 week 14
Credits ： 2+6

1. **Lead Instructor**

   Yoshio Bando (Professor, Dept. of Anatomy, 6053, Office Hour: 随時（要アポイントメント）)

2. **Instructors**

   Yoshio Bando (Professor, Dept. of Anatomy, 6053, Office Hour: 随時（要アポイントメント）)
   Yasukazu Hozumi (Professor, Cell Biology and Morphology, 6056, Office Hour: 随時（要アポイントメント）)
   Ryoji Suzuki (Associate Professor, Dept. of Anatomy, 6054, Office Hour: 随時（要アポイントメント）)
   Ming Zho (Assistant Professor, Dept. of Anatomy, 6260, Office Hour: 随時（要アポイントメント）)
   Hideo Akashi (Associate Professor, Dept. of Anatomy, 6055, Office Hour: 随時（要アポイントメント）)
   Hiroshi Kiyama (Part-time Lecturer, Professor, Nagoya Univ. Grad. Sch. Med.)
   Shinya Ugawa (Part-time Lecturer, Professor, Nagoya City Univ. Grad. Sch. Med.)

3. **Course Description Outline(Course Objectives)**

   Aim

   In order to learn the pathophysiology of each disease required in clinical practice and practice medical treatment, you are required to understand how the organs and tissues that make up the human body are shaped and constructed. To achieve this, we will learn not only basic medicine such as histology and physiology, but also clinical medicine. By practicing ”horizontally and vertically integrated lectures and practical training ” that are conscious of image interpretation and understanding of the pathophysiology of diseases, you will comprehensively understand the structure and function of the human body. Of the structure of the human body, three Dimensional understanding is important for not only surgery, but also for radiography, CT/MRI and ultrasound diagnosis. Therefore, in the dissection course of human gross anatomy (including neuroanatomy), the structure of the human body is actually observed on the donated cadaver. It is also very important to know the existence of individual differences.
   In addition, by directly touching the human body, you will gain the knowledge, experience, and thoughts necessary to become a medical doctor in the future. It is strongly noticed to actively receive from the cadaver donation. It also meets the wishes of the deceased and the expectations of the bereaved family. This course will give you a series of professionalism, ethics, medical behavioral science, medical safety, medical laws (system) and EBM as well.

   Overview

   1)Have a respect for the deceased and the bereaved family who have been donated, and can hope for human dissection with an appropriate attitude.
   2)Explain the Shiragikukai and the cadaver donation.
   3)Can outline and comply with laws related to human dissection.
   4)Participate in cremations and memorial ceremony and show gratitude and respect to individuals and bereaved families.
   5)Be fully aware of the responsibilities of a medical doctor.
   6)Can understand your role, build friendly relationships with the members, and cooperate in the training.
   7)In dialogues with group members and oral examinations, you can listen carefully to the other person’s story and understand the problems.
   8)Be able to explain the content in an easy-to-understand manner in dialogues with group members and oral examinations.
   9)The main organs can be properly dissected, and the normal structure and individual differences can be understood.

10)Explain the positional relationship between major organs and other organs.
11)Draw the main skeletal muscles and explain their actions and innervation.
12)Draw the major arteries and veins, and show the perfused regions.
13)Explain the distribution of major blood vessels / lymph and nerves and their characteristics.
14)Can say the names of major organs in Japanese and English, and outline their morphology and function.
15)Learn the basic knowledge necessary to interpret the normal image of radiography, CT/MRI and ultrasound.
16)Outline the composition and features of the skull.
17)Outline the running of arteries and veins in the brain and spinal cord.
18)Outline the main structures and functions of the brain and spinal cord.
19)Can explain and practice professionalism, medical ethics, medical safety, and medical law (system) related to this area, EBM

4. **Textbook/Reference Books**

(Textbook)
Gray's Anatomy (Elsevier Japan)
Clinical Neuroanatomy (Elsevier / Ishiyaku Publications)
Handbook of anatomy practical training (Nanzando)
(Atlas)
Use in practice training. You need at least one of the following atlas.

Netter Anatomy Atlas (Nankodo)
Prometheus Anatomy Core Atlas (Igaku-Shoin)
Gray's Anatomy Atlas (Elsevier)
Anatomy Color Atlas (Igaku-Shoin)
(Reference book)
Snell Clinical Anatomy (Medical Science International)
Moore Clinical Anatomy (Medical Science International)
Anatomy for clinical practice (Medical Science International)
Neuroanatomy Lecture Note (Kinpodo)
(Glossary:as needed)
Anatomy Glossary Japanese Association of Anatomists Terminology Committee (Igaku-Shoin)

5. **Assessment**

Credit is evaluated by a paper test called a unified examination (Touitsu-shiken).

However, in order to express gratitude and respect for the deceased and the bereaved family, the certification of eligibility to take the unified examination is as follows.

1)Medical students are required to attend anatomy and neuroanatomy lectures and practical training more than 2/3 of total.

Evaluation is "Comprehensive evaluation". More than 60% in total and more than 40% for each item as follows. Please note that it may happen. If it does not meet these requirements, it should be evaluated that the student hasn't completed the prescribed training likely to less than 2/3 attendance because the study is not sufficient to meet the wishes of the deceased and the expectations of the bereaved family.

(1) Human gross anatomy practical training (100 Points)
Attendance points + attitude evaluation points 60 Point (absent -6 Points / times, late / early departure -3 Points / times) Even if the instructors admit that the attitude during the training is bad, points will be deducted according to the degree.
Paper test 40 Points (including writing English of basic terms): This is not same as the unified examination.

(2) Neuroanatomy practical training (100 Points)
Attendance points + attitude evaluation points 60 Point (absent -6 Points / times, late / early departure -3 Points / times) Even if the instructors admit that the attitude during the training is bad, points will be deducted according to the degree.
Sketch during training 20 Point (Supplementary training cannot be done due to the nature of the training)
Paper test 20 Points (including writing English of basic terms): This is not same as the unified examination.

(3) Cremation and memorial ceremony (each 100 point)

This is the last opportunity to express gratitude and respect directly to the deceased and the bereaved family, and it is a very important event. However, in recent years, some students have been late or absent from cremation and memorial ceremony, so we are assigning points for attendance.

It is defined as follows: Absence, 0. Therefore, if you are absent, it becomes impossible to satisfy the ”40% rule in each item”. Then, it will be evaluated that ”the prescribed training has not been completed”. In the case of late arrival: Before the start -10 Point, after the ceremony starts in less than 10 minute -20 Point (in total -30 Point), after the ceremony starts in less than 30 minute -40 Point (in total -50 Point), after the ceremony starts after 30 minutes -60 Point (in total -70 Point). However, consideration will be given to absenteeism and late arrival due to objectively unavoidable circumstances.

6. **Out of Class Study/Message**

1)The lecture is basically given prior to the practical training, but please note that the content of the syllabus is just a plan and may differ from the actual progress.
2)At the end of each practical training a formative assessment is conducted by oral examination to confirm the knowledge acquisition status (for each group). The results of the oral examination are formative assessments and do not affect the eligibility judgment for the unified examination, but the groups who cannot pass the oral examination cannot go home until they can pass. Therefore, when planning club activities or part-time jobs, allow plenty of time (it is difficult to predict the end time in advance because the situation is different for each group).
3)Please note that if you say or do something that seems to be disrespectful to the body (bereaved family), points will be deducted from the score of the paper examination accordingly.
4)Bringing electronic devices into the practical training room is permitted only for learning purposes (smartphones are strictly prohibited). However, the university is not responsible for any breakdown, so bring it in at your own risk.
5)Video and photography are strictly prohibited for any reason. In addition, even if it is for individual study purposes, the content of the practical training and impressions is strictly forbidden to upload to SNS etc. If it turns out that you have done so, you may be reported to the on-campus committee and be subjected to disciplinary punishment including suspension etc.
6)Since the tasks related to the goals to be achieved will be presented in advance, it is recommended that each person print out and prepare for each practical training. The more one understands the flow of the practical training, the more efficient practical training can be. However, in the group with the less understanding, it will be difficult to finish it in time.
7)If the training schedule is changed due to unavoidable circumstances such as a natural disaster, we will promptly contact you after adjusting the schedule.
8)Due to the nature of the training, supplementary classes are not possible. Be careful about your physical condition.
9)Cremation and Memorial Ceremony is mandatory. Cremation will be held sequentially after the practical training, but be careful about the schedule of summer vacation because some groups will be held in summer vacation.
10)Ventilation in the practical training room is taken into consideration, but if you feel unwell or have allergic symptoms due to the latex gloves, promptly notify your instructors.

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
1	5 / 16 (Mon)	5-10	Lecture	Theme: Anatomy Lecture 1-3: Introduction of anatomy and Precautions for practical training of human dissection. 1)Explain the Shiragikukai and the body donation. 2)Listening to the talks of current members of the Shiragikukai, the feelings and the expectations entrusted to medical students must be understood. 3)Explain the outline of laws related to practical training of human dissection 4)Explain the outline of the human body structure. 5)Explain the structure of the flank inguinal region. 6)Explain the structure of the head and face. 7)Worship the donated deceased and understanding appropriate behaviors that you will be practicing. 8)Understand various points to note in the training. 9)Understand latex allergy and multiple chemical sensitivity	Yoshio Bando	基礎棟第 2 講義室
2	5 / 17 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 4: Abdominal wall / groin / face 1)Explain the basic structure and characteristics of the abdominal wall. 2)Explain the basic structure and features of the inguinal region. 3)Explain the main basic structure and features of the face. The basic structure is pointed to mainly muscles, nerves, blood vessels and lymph.	Yoshio Bando	基礎棟第 2 講義室
3	5 / 17 (Tue)	3-4	Lecture	Theme: Anatomy Lecture 5: neck 1)Explain the structure and characteristics of the neck.	Yoshio Bando	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
4	5 / 17 (Tue)	5-10	Practice	Theme: Precautions for dissection, 1. Neck and chest skin incision, 2. Platysma muscle / mammary gland, 3. Cutaneous vein / cutaneous nerve Peeling of the anterior and lateral necks and autopsy of muscles, blood vessels, and nerves 1)Can note the important points in practical training of human dissection. 2)Worship the deceased and practice with an appropriate attitude. 3)Built the great relationship with your team via strong team communication. 4)Cooperate with your members in the practical training. 5)Listen to your member 's talk and respect the other persons. 6)Extract some important problems by yourself and find the best way to problem solve. 7)Can explain something in an easy-to-understand manner. 8)Can illustrate and explain the tissue structure of the skin. 9)Explain the main structure under the skin of neck. 10)Explain the structure of the breast. 1)-7) are common items in each practice, so it is omitted after this description. The numbers at the beginning of contents of the theme show the chapter numbers of the training guide. The resume described items to be observed in the training will be distributed separately.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
5	5 / 18 (Wed)	1-2	Lecture	Theme: Anatomy Lecture 6: Neck / Chest back 1)Explain the structure and characteristics of neck and chest back.	Yoshio Bando	基礎棟第 2 講義室
6	5 / 18 (Wed)	3-4	Lecture	Theme: Anatomy Lecture 7: Upper limbs (1) 1)Explain the basic structure of upper limbs.	Yoshio Bando	基礎棟第 2 講義室
7	5 / 18 (Wed)	5-10	Practice	Theme: 5. Superficial layer of neck, 4. Pectoralis major, 30. Inguinal region 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
8	5 / 20 (Fri)	1-2	Lecture	Theme: Anatomy Lecture 8: Upper Limbs (2) 1)Explain the basic structure of upper limbs.	Yoshio Bando	基礎棟第 2 講義室
9	5 / 20 (Fri)	3-4	Lecture	Theme: Anatomy Lecture 9: Lower Limbs (1) 1)Explain the basic structure of lower limbs.	Yoshio Bando	基礎棟第 2 講義室
10	5 / 20 (Fri)	5-10	Practice	Theme: 8. Deep layer of neck, 9. Chest and axillary fossa, 10. Subclavian artery and its branches 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
11	5 / 23 (Mon)	5-10	Practice	Theme: 6., 7. Superficial layer of back, 53. Gluteal region, posterior thigh and posterior lower leg 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
12	5 / 24 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 10: Lower Limbs (2) 1)Explain the basic structure of lower limbs.	Yoshio Bando	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
13	5 / 24 (Tue)	3-4	Lecture	Theme: Anatomy Lecture 11: hand and foot 1)Explain the basic structure of hand and foot.	Yoshio Bando	基礎棟第 2 講義室
14	5 / 24 (Tue)	5-10	Practice	Theme: 14. Posterior scapula, 15. Superficial and deep layers of muscles of back, 54. Gluteus maximus muscle, 56. Deep layer of gluteal region 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
15	5 / 25 (Wed)	1-2	Lecture	Theme: Anatomy Lecture 12: Joint 1)Explain the basic structure of each joint, respectively.	Yoshio Bando	基礎棟第 2 講義室
16	5 / 25 (Wed)	3-4	Lecture	Theme: Anatomy Lecture 13: Heart and vascular system (1) 1)Explain the basic structure of heart and vascular system.	Yoshio Bando	基礎棟第 2 講義室
17	5 / 25 (Wed)	5-10	Practice	Theme: 26. Intrinsic spine (muscles of back proper), 14. Brachial extensor, 57. Deep layer of posterior thigh, 58. Popliteal fossa and posterior lower leg 1) Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
18	5 / 27 (Fri)	1-2	Lecture	Theme: Anatomy Lecture 14: Heart and vascular system (2) 1)Explain the basic structure of heart and vascular system.	Yoshio Bando	基礎棟第 2 講義室
19	5 / 27 (Fri)	3-4	Lecture	Theme: Anatomy Lecture 15: Peripheral vascular system and Lymphatic system (1) 1)Explain the basic structure of peripheral vascular system and lymphatic system.	Yoshio Bando	基礎棟第 2 講義室
20	5 / 27 (Fri)	5-10	Practice	Theme: 27. Suboccipital muscles, 58. Popliteal fossa and posterior lower leg, 61. Deep layer of lower leg 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
21	5 / 30 (Mon)	5-10	Practice	Theme: 11. Branches of brachial plexus, 12. Brachial flexor, 53. Anterior lower limb, 54. Fascia lata 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
22	5 / 31 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 16: Peripheral vascular system and Lymphatic system (2) 1)Explain the basic structure of peripheral vascular system and lymphatic system.	Yoshio Bando	基礎棟第 2 講義室
23	5 / 31 (Tue)	3-4	Lecture	Theme: Anatomy Lecture 17: Respiratory system and lung (1) 1)Explain the basic structure of respiratory system and lung.	Yoshio Bando	基礎棟第 2 講義室
24	5 / 31 (Tue)	5-10	Practice	Theme: 13. Scapula anterior, 15. Disarticulation of upper limb, 16. Brachial flexor, 55. Deep layer of anterior thigh, 59., 61. Anterior lower leg and dorsum of foot 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
25	6 / 1 (Wed)	1-2	Lecture	Theme: Anatomy Lecture 18: Respiratory system and lung (2) 1)Explain the basic structure of respiratory system and lung.	Yoshio Bando	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
26	6 / 1 (Wed)	3-10	Practice	Theme: 17. Forearm (antebrachial extensor) and back of the hand, 60. Sole, 59., 61. Anterior lower leg and dorsum of foot 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
27	6 / 3 (Fri)	1-2	Lecture	Theme: Anatomy Lecture 19: Respiratory system and lung (3) 1)Explain the basic structure of respiratory system and lung.	Yoshio Bando	基礎棟第 2 講義室
28	6 / 3 (Fri)	3-4	Lecture	Theme: Anatomy Lecture 20: Digestive system (Gastrointestinal system) (1) 1)Explain the basic structure of Digestive system.	Yoshio Bando	基礎棟第 2 講義室
29	6 / 3 (Fri)	5-10	Practice	Theme: 18., 19., 20. Palm, 28. Spinal cord 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
30	6 / 6 (Mon)	5-10	Practice	Theme: 22. Shoulder joint, 23. Elbow joint, 24. Wrist joint, 25. Knuckle, 62. Knee joint, 63. Ankle joint 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
31	6 / 7 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 21: Digestive system (Gastrointestinal system) (2) 1)Explain the basic structure of digestive system.	Yoshio Bando	基礎棟第 2 講義室
32	6 / 7 (Tue)	3-10	Practice	Theme: 73. Superficial layer of face, 29. Thoracic wall, 30. Inguinal region and lateral abdominal muscles 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
33	6 / 8 (Wed)	1-2	Lecture	Theme: Anatomy Lecture 22: Digestive system (Gastrointestinal system) (3) 1)Explain the basic structure of digestive system.	Yoshio Bando	基礎棟第 2 講義室
34	6 / 8 (Wed)	3-10	Practice	Theme: 38. Cervical organ, 35. Thoracic cavity, 31. Rectus sheath, 32. Transversalis fascia and peritoneum, 33. navel 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
35	6 / 10 (Fri)	1-2	Lecture	Theme: Anatomy Lecture 23: Liver, Gall bladder, Pancreas 1) Explain the basic structure of liver, gall bladder and pancreas.	Yoshio Bando	基礎棟第 2 講義室
36	6 / 10 (Fri)	3-4	Lecture	Theme: Anatomy Lecture 24: Peritoneum and Urinary system (Kidney) 1)Explain the basic structure of peritoneum and urinary system and kidney	Yoshio Bando	基礎棟第 2 講義室
37	6 / 10 (Fri)	5-10	Lecture	Theme: 34. Peritoneum, 36. Pleura and Pericardium, 38. Cervical organ, 43 Peritoneal cavity, 44. Peritoneum 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
38	6 / 13 (Mon)	5-10	Practice	Theme: 72. Cervical vessels and nerve/transection of head, 37. Lung 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
39	6 / 14 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 25: Urinary system 1)Explain the basic structure of peritoneum and urinary system	Yoshio Bando	基礎棟第 2 講義室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
40	6 / 14 (Tue)	3-4	Lecture	Theme: Anatomy Lecture 26: Male reproductive organs 1)Explain the basic structure of male reproductive organs	Yoshio Bando	基礎棟第 2 講義室
41	6 / 14 (Tue)	5-10	Practice	Theme: (77. Taking brain out), 78. Intracranial, 92. Overview of brain, 93. Arachnoid and Pia mater, 94. Cerebrovascular system, 95. Cranial nerves, 39. Mediastinum 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
42	6 / 15 (Wed)	1-2	Lecture	Theme: Anatomy Lecture 27: Female reproductive organs and Essentials of Embryology 1)Explain the basic structure of female reproductive organs	Yoshio Bando	基礎棟第 2 講義室
43	6 / 15 (Wed)	3-4	Lecture	Theme: Anatomy Lecture 28: Pelvis and Perineum 1)Explain the basic structure of pelvis and perineum	Yoshio Bando	基礎棟第 2 講義室
44	6 / 15 (Wed)	5-10	Practice	Theme: 72. Transection of head, 40. Overview/outside of heart, 41. Inside of heart 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
45	6 / 17 (Fri)	1-2	Lecture	Theme: Anatomy Lecture 29: Orbit and Eye ball (1) 1)Explain the basic structure of orbit and eye ball	Yoshio Bando	基礎棟第 2 講義室
46	6 / 17 (Fri)	3-4	Lecture	Theme: Anatomy Lecture 30: Orbit and Eye ball (2) 1)Explain the basic structure of orbit and eye ball	Yoshio Bando	基礎棟第 2 講義室
47	6 / 17 (Fri)	5-10	Practice	Theme: 74. Pharynx, 42. Deep layer of mediastinal space 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
48	6 / 20 (Mon)	5-10	Practice	Theme: 75. Thyroid and Trachea, 45. Blood vessels and nerves of abdominal organs 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
49	6 / 21 (Tue)	1-2	Lecture	Theme: Anatomy Lecture 31: External, middle and internal ear 1)Explain the basic structure of external, middle and internal ear.	Yoshio Bando	基礎棟第 2 講義室
50	6 / 21 (Tue)	3-4		Theme: Reserved		第 1 実習室
51	6 / 21 (Tue)	5-10	Practice	Theme: 76. Larynx, 45. Blood vessels and verves of abdominal organs 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
52	6 / 22 (Wed)	1-2	Lecture	Theme: Neuroanatomy Lecture 1: Introduction of Neurohistology 1)Explain the basic knowledge of neurohistology.	Yoshio Bando	基礎棟第 2 講義室
53	6 / 22 (Wed)	3-4	Lecture	Theme: Neuroanatomy Lecture 2: Introduction of Neurophysiology and Neuropharmacology 1) Explain the basic knowledge of neurophysiology and neuropharmacology.	Yoshio Bando	基礎棟第 2 講義室
54	6 / 22 (Wed)	5-10	Practice	Theme: 79. Transection of head in half, 80. Nasal cavoty, 46. Intestinal tract, 47. Stomach 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
55	6 / 24 (Fri)	1-2	Lecture	Theme: Neuroanatomy Lecture 3: Introduction of Neuroembryology 1) Explain the basic knowledge of neuroembryology.	Yoshio Bando	基礎棟第 2 講義室
56	6 / 24 (Fri)	3-4	Lecture	Theme: Neuroanatomy Lecture 4: Introduction of Central Nervous System (CNS) 1)Explain the basic structure of CNS.	Yoshio Bando	基礎棟第 2 講義室
57	6 / 24 (Fri)	5-10	Practice	Theme: 81. Masseter muscles, 82. Temporal region, 48. Liver 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
58	6 / 27 (Mon)	5-6	Lecture	Theme: Neuroanatomy Lecture 5: Meninges and Cerebrovascular 1)Explain the basic structure of meninges and cerebrovascular.	Yoshio Bando	基礎棟第 2 講義室
59	6 / 27 (Mon)	7-10	Lecture	Theme: Neuroanatomy Lecture Special Lecture (planned) A special lecture will be given by an outside lecturer.	Hiroshi Kiyama	基礎棟第 2 講義室
60	6 / 28 (Tue)	1-2	Lecture	Theme: Neuroanatomy Lecture 6: Cerebral cortex 1)Explain the basic structure of cerebral cortex.	Yoshio Bando	基礎棟第 2 講義室
61	6 / 28 (Tue)	3-4	Lecture	Theme: Neuroanatomy Lecture 7: Rhiencephalon and Limbic system 1)Explain the basic structure of rhiencephalon and limbic system.	Yoshio Bando	基礎棟第 2 講義室
62	6 / 28 (Tue)	5-10	Practice	Theme: 83. Glossa and Palate, 84. Paranasal sinus, 49. Duodenum, Pancreas, Spleen 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
63	6 / 29 (Wed)	1-2	Lecture	Theme: Neuroanatomy Lecture 8: Basal ganglia and telencephalon 1)Explain the basic structure of basal ganglia and telencephalon.	Yoshio Bando	基礎棟第 2 講義室
64	6 / 29 (Wed)	3-4	Lecture	Theme: Neuroanatomy Lecture 9: Reticular formation and Brainstem 1)Explain the basic structure of reticular formation and brainstem.	Yoshio Bando	基礎棟第 2 講義室
65	6 / 29 (Wed)	5-10	Practice	Theme: 85. Eye, 86. Orbit, 50. Kidney and Adrenal glands, 51. Abdominal vessels and nerves 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
66	7 / 1 (Fri)	1-2	Lecture	Theme: Neuroanatomy Lecture 10: Neural pathways/Nerve tract/Neural circuit (1) 1)Explain the basic structure of neural pathways including motor and sensory pathways.	Yoshio Bando	基礎棟第 2 講義室
67	7 / 1 (Fri)	3-4	Lecture	Theme: Neuroanatomy Lecture 11: Neural pathways/Nerve tract/Neural circuit (2) 1)Explain the basic structure of neural pathways including motor and sensory pathways.	Yoshio Bando	基礎棟第 2 講義室
68	7 / 1 (Fri)	5-10	Practice	Theme: 86. Orbit, 52. Diaphragm and lumbar plexus 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
69	7 / 4 (Mon)	1-2	Lecture	Theme: Neuroanatomy Lecture 12: Neural pathways/Nerve tract/Neural circuit (3) 1)Explain the basic structure of neural pathways including motor and sensory pathways.	Yoshio Bando	基礎棟第 2 講義室
70	7 / 4 (Mon)	3-4	Lecture	Theme: Neuroanatomy Lecture 13: Thalamus and Hypothalamus 1)Explain the basic structure of thalamus and hypothalamus.	Yoshio Bando	基礎棟第 2 講義室
71	7 / 4 (Mon)	5-10	Practice	Theme: 87. Eye ball, 64. Urinary bladder, 65. External genitalia 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
72	7 / 5 (Tue)	1-2	Lecture	Theme: Neuroanatomy Lecture 14: Cerebellum 1)Explain the basic structure of cerebellum.	Yoshio Bando	基礎棟第 2 講義室
73	7 / 5 (Tue)	3-4	Lecture	Theme: Neuroanatomy Lecture 15: Cranial nerves (1) 1)Explain the basic structure of cranial nerves.	Yoshio Bando	基礎棟第 2 講義室
74	7 / 5 (Tue)	5-10	Practice	Theme: 88. Hypoglossal canal, 65. External genitalia, 66. Perineum 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
75	7 / 6 (Wed)	1-2	Lecture	Theme: Neuroanatomy Lecture 16: Cranial nerves (2) 1)Explain the basic structure of cranial nerves.	Yoshio Bando	基礎棟第 2 講義室
76	7 / 6 (Wed)	3-10	Practice	Theme: 89. External ear and Middle ear, 67. Transection of pelvis in half, 68. Pelvic internal organs 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
77	7 / 8 (Fri)	1-2	Lecture	Theme: Neuroanatomy Lecture 17: Cranial nerves (3) 1)Explain the basic structure of cranial nerves.	Yoshio Bando	基礎棟第 2 講義室
78	7 / 8 (Fri)	3-10	Practice	Theme: 90. Internal ear, 91. Pterygoid canal, 69. Pelvic nerves and vessels, 70. Pelvic internal organs 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
79	7 / 11 (Mon)	1-2	Lecture	Theme: Neuroanatomy Lecture 18: Autonomic nervous system 1)Explain the basic structure of autonomic nervous system.	Yoshio Bando	基礎棟第 2 講義室
80	7 / 11 (Mon)	3-10	Practice	Theme: 101. Transection of cerebral cortex in half and Third ventricle, 102. Cerebral cortex, 103. Rhiencephalon, 96. Exterior surface of brain stem, 97. Cerebellum 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
81	7 / 12 (Tue)	1-2		Theme: Reserved		
82	7 / 12 (Tue)	3-10	Practice	Theme: 104. Nerve fiber of cerebral cortex and Lentiform nucleus, 105. Lateral ventricle and Caudate nucleus, 106. Diencephalon, 94. Fourth ventricle, 99. Medulla oblongata 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	基礎棟第 2 講義室
83	7 / 13 (Wed)	1-4	Practice	Theme: 107. Cross section of cerebral cortex and Diencephalon, 100. Transverse section of brain stem and cerebrum 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
84	7 / 13 (Wed)	5-8	Practice	Theme: 71. Pelvic wall and Hip joint 1)Explain the structure and characteristics of the theme.	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	第 1 実習室
85	7 / 13 (Wed)	9-10	Lecture	Theme: Guidance for cleaning of the practical room, encoffinment and cremation Guidance for cleaning of the practical room, encoffinment and cremation		基礎棟第 2 講義室
86	7 / 14 (Thu)	1-10		Theme: Neurohistology lecture and practice This lecture and practice will be performed as a new medical education (integrated curriculum between basic medicine). 1) Explain the outline of neuron and glial cells 2) Explain the location of various nuclei in the CNS and their characters. 3) Explain the histological methods and immunohistochemistry. 4) Can observe neuronal tissues with a microscope.	Yasukazu Hozumi	基礎棟第 2 講義室
87	7 / 15 (Fri)	1-4	Examination	Theme: reserved		
88	7 / 15 (Fri)	5-6	Lecture	Theme: Paper examination	Yoshio Bando	基礎棟第 2 講義室
89	7 / 15 (Fri)	7-10	Practice	Theme: Neuroanatomy and Neurohistology lecture: Special Lecture A special lecture will be given by an outside lecturer. This lecture also will be performed as a new medical education (integrated curriculum between basic medicine).	Shinya Ugawa	基礎棟第 2 講義室
90	7 / 19 (Tue)	1-10	Other	Theme: Cleaning of the practical room and encoffinment Cleaning of the practical room and encoffinment		第 1 実習室
91	7 / 20 (Wed)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
92	7 / 21 (Thu)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
93	7 / 22 (Fri)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
94	7 / 25 (Mon)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
95	7 / 26 (Tue)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
96	7 / 27 (Wed)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	
97	7 / 28 (Thu)	1-10	Other	Theme: Cremation Must attend Cremation	Yoshio Bando Ryoji Suzuki Ming Zho Hideo Akashi	

Topics and Contents of class, Course Objectives						
	Class Date	**Period**	**Class Format**	**Topics and Contents of class, Course Objectives**	**Instructors**	**Class Room**
98	8 / 0 (Sun)	5-8	Other	Theme: Memorial ceremony Must attend Memorial ceremony	Yoshio Bando Yasukazu Hozumi Ryoji Suzuki Ming Zho Hideo Akashi	