



## BUILDING STANDARDS FOR PHYSICAL ASSESSMENT OF SECOND YEAR STUDENTS AT KHANH HOA UNIVERSITY, VIETNAM

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### **Abstract:**

Research to build physical assessment standards for second-year students of Khanh Hoa University helps us get the basic information and basis to evaluate the teaching process and choose solutions. suitable in the training process, improve students' physical condition to meet learning requirements in new training trends.

**Keywords:** standard, physical, student, Khanh Hoa University

### **1. Introduction**

Grasping the importance of financial education for students, many universities across the country, including Khanh Hoa University have fully implemented the regulations of the Ministry of Khanh Hoa regarding the program content. Physical Education in Universities. In fact, in teaching at the school, we found that, in the teaching of financial education for students during the lessons, many students still showed weak physical characteristics, and poor physical condition, leading to failure to fulfill the set targets of the subject, this more or less affects students' learning results and the quality of the university's training.

To accurately determine the physical status of students to not only meet the requirements of improving fitness and developing physical fitness but also meet the needs and preferences of students, reducing stress after studying. reasoning in class. Thereby helping students to complete and develop the necessary qualities and competencies, to meet the demanding requirements of society, and to improve the personality of the staff in the future. Therefore, the physical assessment of second-year students of the University of Khanh Hoa has then taken appropriate measures to help

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students define their learning goals, and motivations and stimulate their learning needs. members, improving the efficiency of financial education to meet output requirements for society.

## 2. Research Methods

In the research process, we have used the following methods: document reference method, pedagogical observation method, interview method, pedagogical test method, and statistical mathematical method. Conducted surveys and assessments on male and female students of Khanh Hoa University. Interviewing experts, and lecturers from universities in the province of Khanh Hoa to determine the content of students' physical assessment.

## 3. Results

### 3.1 Determine the Content of Physical Assessment for Students of Khanh Hoa University

Through the analysis and synthesis of documents, we have a system of 9 tests used by many experts and lecturers to evaluate students' physical fitness. The final result of the interview is optimal if there is a high coincidence between the two interviews. We conducted two interviews one month apart with the same affirmative or disapproving response. From the results obtained through the interview process, we have selected 9 physical assessment tests with a high number of votes (over 80%) from experts and lecturers.

From the obtained results, we determine the informativeness showing that: All 9/9 tests selected in the research object show a fully informative correlation with ( $|r| > 0.6$  with  $p < 0.05$ ) and determine the reliability of the tests. Through 2 tests at a very high level (with  $r > 0.80$  to  $0.99$  at the threshold probability  $p < 0.05$ ). This shows that the selected tests show a strong correlation with full reportability, reliability, and suitability for research subjects as well as practical conditions in the physical assessment for students of Khanh Hoa University.

The tests are:

- Lie on your stomach for 20 seconds (times),
- Turn on the spot (cm),
- Lie on your back for 30 seconds (times),
- Run 30m (s), Run 4x10m (s),
- Run arbitrarily 12 minutes (m),
- Corresponding height (cm),
- HW index,
- Live capacity (liters).

### 3.2 Develop Standards to Assess the Fitness of Second-year Students at Khanh Hoa University

To evaluate the physical fitness of the students of the University of Khanh Hoa. We have tested the pedagogy on 9 selected tests, on that basis, building a physical assessment scale for research subjects in 2 forms of classification and points, namely: Based on the results identified from 9 physical assessment tests, by value, we built a classification table according to 5 levels: Good, Fair, Medium, Weak, Poor. Content with test results of distance, altitude, magnitude, and number of times is as large as possible, and vice versa, the results measured by time, the smaller the better.

The scale with test results as large as possible is built as follows:

- < - 1.5 Poor,
- 1.5 ~ - 0.5 Weak,
- 0.5 ~ + 0.5 Average,
- + 0.5 ~ + 1.5 Fair,
- + 1.5 Good.

The scale with test results as small as possible is constructed as follows:

- + 1.5 Poor,
- + 0.5 ~ + 1.5 Weak,
- - 0.5 ~ + 0.5 Average,
- - 1.5 ~ - 0.5 Fair,
- - 1.5 Good.

After the 9-test pedagogical test, we built the scoreboard according to the 5-level classification presented in Tables 1, and 2.

**Table 1:** Criteria for Second-year Male Student's  
 Physical Fitness Classification Khanh Hoa University

No.	Content	Good	Fair	Average	Weak	Poor
1.	Lie on your stomach for 20 seconds (times)	≥21	20-18	17-14	13-11	≤12
2.	Turn on the spot (cm)	≥250.9	244.25-237.58	230.91-217.57	210.90-204.23	≤203
3.	Le on your back for 30 seconds (times)	≥27	26-21	20-13	12-7	≤6
4.	Run 30m (s)	≤3.8	4.09-4.37	4.66-5.23	5.51-5.8	≥5.81
5.	Run 4x10m (s)	≤9.78	9.97-10.15	10.34-10.71	10.89-11.08	≥11.09
6.	Run arbitrarily 12 minutes (m)	≥2158	2157-2076	2075-1952	1951-1879	≤1869
7.	Corresponding height (cm)	≥174.3	171.66-168.93	166.21-160.76	158.03-155.31	≤154
8.	HW index	≤8.59	9.15-9.71	10.27-11.39	11.95-12.51	≥13
9.	Live capacity (liters)	≥4.87	4.68-4.48	4.29-3.9	3.70-3.51	≤3.52

**Table 2: Criteria for Second-year Female Student's  
 Physical Fitness Classification Khanh Hoa University**

No.	Content	Good	Fair	Average	Weak	Poor
1.	Lie on your stomach for 20 seconds (times)	≥16	15-13	12-9	8-7	≤6
2.	Turn on the spot (cm)	≥183	176-170	164-151	145-138	≤137
3.	Lie on your back for 30 seconds (times)	≥18	17-14	13-10	9-6	≤5
4.	Run 30m (s)	≤53	5.46-5.61	5.77-6.08	6.23-6.39	≥6.4
5.	Run 4x10m (s)	≤ 10.5	10.75-10.99	11.24-11.73	11.97-12.22	≥12.23
6.	Run arbitrarily 12 minutes (m)	≥1617	1616-1555	1554-1462	1461-1400	≤1399
7.	Corresponding height (cm)	≥163	162-159	158-153	152-149	≤148
8.	HW index	≤ 5.53	6.16-6.78	7.41-8.66	9.28-9.91	≥9.92
9.	Live capacity (liters)	≥ 4.2	3.95-3.7	3.45-2.95	2.70-2.45	≤2.44

Based on the C-scale scoreboard (scores from 1 to 10), we built the scoreboard, and the results are presented in Tables 3 and 4.

**Table 3: Standards of Physical Fitness Based on Transcripts  
 for Male Students Second-year Khanh Hoa University**

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1.	Lie on your stomach for 20 seconds (times)	< 10	11.43	12.89	14.36	15.82	17.29	18.75	20.22	21.68	> 22
2.	Turn on the spot (cm)	< 203	204.2	210.9	217.5	224.2	230.9	237.5	244.2	250.9	> 251
3.	Lie on your back for 30 seconds (times)	< 6	7.79	10.59	13.40	16.2	19.01	21.81	24.62	27.42	> 28
4.	Run 30m (s)	> 8.81	5.80	5.51	5.23	4.94	4.66	4.37	4.09	3.80	< 3.79
5.	Run 4x10m (s)	> 11.09	11.08	10.89	10.71	10.52	10.34	10.15	9.97	9.78	< 9.77
6.	Run arbitrarily 12 minutes (m)	< 1869	1870	1911	1952	1993	2035	2076	2117	2158	> 2159
7.	Corresponding height (cm)	< 154	155.3	158.0	160.7	163.4	166.2	168.9	171.6	174.3	> 175
8.	HW index	< 12.52	12.51	11.95	11.39	10.83	10.27	9.71	9.15	8.59	< 8.58
9.	Live capacity (liters)	< 3.52	3.51	3.70	3.90	4.09	4.29	4.48	4.68	4.87	> 4.88

**Table 4: Standards of Physical Fitness Based on Transcripts  
 for Female Students Second-year Khanh Hoa University**

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1.	Lie on your stomach for 20 seconds (times)	< 6	7.09	8.39	9.70	11.00	12.31	13.61	14.92	16.22	> 17
2.	Turn on the spot (cm)	< 137	138.8	145.2	151.5	157.8	164.2	170.5	176.9	183.2	> 184
3.	Lie on your back for 30 seconds (times)	< 5	6.81	8.41	10.02	11.62	13.23	14.83	16.44	18.04	> 19
4.	Run 30m (s)	> 6.4	6.39	6.23	6.08	5.92	5.77	5.61	5.46	5.30	< 5.29
5.	Run 4x10m (s)	> 12.23	12.22	11.97	11.73	11.48	11.24	10.99	10.75	10.50	< 10.49
6.	Run arbitrarily 12 minutes (m)	< 1399	1400	1431	1462	1493	1524	1555	1586	1617	> 1618

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7.	Corresponding height (cm)	< 148	149.7	151.7	153.8	155.8	157.8	159.8	161.8	163.8	> 162
8.	HW index	< 9.92	9.91	9.28	8.66	8.03	7.41	6.78	6.16	5.53	< 5.52
9.	Live capacity (liters)	< 2.44	2.45	2.70	2.95	3.20	3.45	3.70	3.95	4.20	> 4.21

Based on building a standard scale, we assess the student's fitness by pedagogical test 9 tests on second-year male and female students of Khanh Hoa University giving results in Table 6.

**Table 6.** Physical Situation of the Second-year Students Khanh Hoa University

Object	Test	Result		Number of people reached	%
		$\bar{X}$	$\delta$		
Male (n=223)	Lie on your stomach for 20 seconds (times)	15.82	2.93	142	63.68
	Turn on the spot (cm)	224.2	13.34	127	56.95
	Lie on your back for 30 seconds (times)	16.2	5.61	116	52.02
	Run 30m (s)	4.94	0.57	157	70.40
	Run 4x10m (s)	10.52	0.37	159	71.30
	Run arbitrarily 12 minutes (m)	1993.6	82.37	208	93.27
	Corresponding height (cm)	163.4	5.45	125	56.05
	HW index	10.83	1.12	144	64.57
	Live capacity (liters)	4.09	0.39	151	67.71
Female (n=223)	Lie on your stomach for 20 seconds (times)	11.00	2.61	177	79.37
	Turn on the spot (cm)	157.8	12.69	103	46.19
	Lie on your back for 30 seconds (times)	11.62	3.21	183	82.06
	Run 30m (s)	5.92	0.31	207	92.83
	Run 4x10m (s)	11.48	0.49	180	80.72
	Run arbitrarily 12 minutes (m)	1493.5	61.72	160	71.75
	Corresponding height (cm)	155.8	4.01	123	55.16
	HW index	8.03	1.25	98	43.95
	Live capacity (liters)	3.20	0.50	133	59.64

Thus, we see, when building the standards according to the classification and the 10-point scale. The test subjects all have results corresponding to the level of physical and concentration is average (from 52.02 - 93.27% for men and 43.95 - 92.83% for women), so there are still many below-average students. Therefore, there should be measures to guide the physical improvement of the students of Khanh Hoa University.

#### 4. Conclusion

The study has taken steps from which 9 physical assessment tests were selected for second-year students of Khanh Hoa University. Through the pedagogical test, a 5-level classification table and a C-scale transcript have been built to assess students' physical fitness. The situation assessment step shows that there are still many students who have

not reached the average level. It is necessary to have solutions to educate and improve the fitness for students of Khanh Hoa University to meet new condition.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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