



## BUILDING STANDARDS FOR STUDENT PHYSICAL ASSESSMENT OF FIRST YEAR HAI PHONG UNIVERSITY, VIETNAM

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### **Abstract:**

Research to build physical assessment standards for first-year students of Hai Phong 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 the new training trends.

**Keywords:** standard, physical, student, Hai Phong University

### **1. Introduction**

Grasping the importance of financial education for students, many universities across the country, including Hai Phong University, have fully implemented the regulations of the Ministry of Hai Phong 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, poor physical condition, leading to failure to fulfill the set targets of 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, and reduce 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 first-year students of the University of Hai Phong has taken appropriate measures to help students define their learning goals, motivations and stimulate their learning needs. members,

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improving the efficiency of financial education to meet the 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 Hai Phong University. Interviewing experts and lecturers from universities in the province of Hai Phong to determine the content of students' physical assessment.

## **3. Research results**

### **3.1 Determine the content of the physical assessment for students of Hai Phong University**

Through the analysis and synthesis of documents, we have a system of 9/11 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 ( $|r| > 0.6$  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 Hai Phong 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 first-year students at Hai Phong University**

To evaluate the physical fitness of the students of the University of Hai Phong. 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, Average, 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 first-year male student's  
physical fitness classification at Hai Phong University

No.	Content	Good	Fair	Average	Weak	Poor
1.	Lie on your stomach for 20 seconds (times)	≥21	20-18	17-13	12-10	≤9
2.	Turn on the spot (cm)	≥260.37	250.05-239.72	229.40-208.75	198.42-188.1	≤187
3.	Lie on your back for 30 seconds (times)	≥25	24-21	20-15	14-11	≤10
4.	Run 30m (s)	≤4.06	4.31-4.56	4.81-5.31	5.56-5.81	≥5.82
5.	Run 4x10m (s)	≤9.52	9.79-10.06	10.33-10.87	11.14-11.41	≥11.40
6.	Run arbitrarily 12 minutes (m)	≥2055	2054-1974	1973-1853	1852-1773	≤1772
7.	Corresponding height (cm)	≥174.59	171.86-169.12	166.39-160.92	158.18-155.45	≤154
8.	HW index	≤5.65	6.94-8.23	9.52-12.10	13.39-14.68	≥14.69
9.	Live capacity (liters)	≥5.4	5.05-4.69	4.34-3.63	3.27-2.92	≤2.91

**Table 2:** Criteria for first-year female student's  
physical fitness classification at Hai Phong 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)	≥164	162-160	159-153	152-149	≤148
3.	Lie on your back for 30 seconds (times)	≥17	16-14	13-9	8-6	≤6
4.	Run 30m (s)	≤4.63	5-5.36	5.73-6.46	6.82-7.19	≥7.18
5.	Run 4x10m (s)	≤10.81	11-11.18	11.37-11.74	11.92-12.11	≥12.12
6.	Run arbitrarily 12 minutes (m)	≥1553	1552-1492	1491-1401	1400-1340	≤1339
7.	Corresponding height (cm)	≥163	162-159	158-152	151-148	≤148
8.	HW index	≤4.37	5.58-6.43	7.28-8.98	9.83-10.68	≥10.67
9.	Live capacity (liters)	≥4.2	3.93-3.66	3.39-2.85	2.58-2.31	≤2.3

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

**Table 3:** Standards of physical fitness based on transcripts  
for male students first-year at Hai Phong University

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1.	Lie on your stomach for 20 seconds (times)	<9	10.41	11.96	13.52	15.07	16.63	18.18	19.74	21.29	> 22
2.	Turn on the spot (cm)	<187	188.1	198.42	208.75	219.07	229.40	239.72	250.05	260.37	> 161
3.	Lie on your back for 30 seconds (times)	<10	11.29	13.27	15.25	17.23	19.21	21.19	23.17	25.15	> 26
4.	Run 30m (s)	>5.82	5.81	5.56	5.31	5.06	4.81	4.56	4.31	4.06	< 4.05
5.	Run 4x10m (s)	>11.4	11.41	11.14	10.87	10.6	10.33	10.06	9.79	9.52	< 9.51
6.	Run arbitrarily 12 minutes (m)	<1772	1773	1813	1853	1893	1934	1974	2014	2055	> 2055
7.	Corresponding height (cm)	<154	155.45	158.18	160.92	163.65	166.39	169.12	171.86	174.59	> 175
8.	HW index	<14.69	14.68	13.39	12.10	10.81	9.52	8.23	6.94	5.65	< 5.64
9.	Live capacity (liters)	<2.91	2.92	3.27	3.63	3.98	4.34	4.69	5.05	5.40	> 5.41

**Table 4:** Standards of physical fitness based on transcripts  
for female students first-year at Hai Phong University

No.	Test	Mark									
		1	2	3	4	5	6	7	8	9	10
1	Lie on your stomach for 20 seconds (times)	<6.55	6.54	7.86	9.19	10.51	11.84	13.16	14.49	15.81	> 16
2	Turn on the spot (cm)	<148	149.03	151.25	153.48	155.70	157.93	160.15	162.38	164.60	> 165
3	Lie on your back for 30 seconds (times)	<6	6.28	7.85	9.43	11.00	12.58	14.15	15.73	17.30	> 18
4	Run 30m (s)	>7.2	7.19	6.82	6.46	6.09	5.73	5.36	5.00	4.63	< 4.62
5	Run 4x10m (s)	>12.12	12.11	11.92	11.74	11.55	11.37	11.18	11.00	10.81	< 10.80
6	Run arbitrarily 12 minutes (m)	<1341	1340	1370	1401	1431	1462	1492	1523	1553	> 1554
7	Corresponding height (cm)	<148	148.20	150.40	152.60	154.8	157.00	159.2	161.40	163.60	> 164
8	HW index	<10.69	10.68	9.83	8.98	8.13	7.28	6.43	5.58	4.73	< 4.72
9	Live capacity (liters)	<2.3	2.31	2.58	2.85	3.12	3.39	3.66	3.93	4.20	> 4.21

On the basis of building a standard scale, we assess the student's fitness by pedagogical test 9 tests on first-year male and female students of Hai Phong University, giving results in Table 6.

**Table 6:** Physical situation of the first-year students Hai Phong University

Object	Test	Result	Number of people reached	%
		$\bar{x} \pm \delta$		
Male (n=220)	Lie on your stomach for 20 seconds (times)	15.07 $\pm$ 3.11	143	65.0
	Turn on the spot (cm)	219.07 $\pm$ 20.65	126	57.3
	Lie on your back for 30 seconds (times)	17.23 $\pm$ 3.96	116	52.7
	Run 30m (s)	5.06 $\pm$ 0.50	158	71.8
	Run 4x10m (s)	10.60 $\pm$ 0.54	159	72.3
	Run arbitrarily 12 minutes (m)	1893.53 $\pm$ 80.54	211	95.9
	Corresponding height (cm)	163.65 $\pm$ 5.47	126	57.3
	HW index	10.81 $\pm$ 2.58	147	66.8
	Live capacity (liters)	3.98 $\pm$ 0.71	153	69.5
Female (n=220)	Lie on your stomach for 20 seconds (times)	10.51 $\pm$ 2.65	179	81.4
	Turn on the spot (cm)	155.70 $\pm$ 4.45	105	47.7
	Lie on your back for 30 seconds (times)	11.00 $\pm$ 3.15	187	85.0
	Run 30m (s)	6.09 $\pm$ 0.73	207	94.1
	Run 4x10m (s)	11.55 $\pm$ 0.37	181	82.3
	Run arbitrarily 12 minutes (m)	1431.53 $\pm$ 60.8	163	74.1
	Corresponding height (cm)	154.80 $\pm$ 4.40	125	56.8
	HW index	8.13 $\pm$ 1.70	99	45.0
	Live capacity (liters)	3.12 $\pm$ 0.54	136	61.8

Thus, we see that 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, which is average (from 52.7 - 95.9% for men and 45.0 - 94.1% for women), so there are still many below-average students. Therefore, there should be measures to guide the physical improvement of the students of Hai Phong University.

#### 4. Conclusion

The study has taken steps from which 9 physical assessment tests were selected for first-year students of Hai Phong 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 of students of Hai Phong University to meet new conditions.

#### Conflict of Interest Statement

The authors declare no conflicts of interest.

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