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REPORT OF THE UNIVERSITY OF MINNESOTA FOR  
THE UNIVERSITY YEARS 1880-81 AND 1881-82.

THE UNIVERSITY OF MINNESOTA, }  
MINNEAPOLIS, MINN., }  
November 1st, 1882. }

*To the Honorable David L. Kitchie, Superintendent of Public In-*  
*struction for the State of Minnesota:*

SIR:

I have the honor in accordance with law, to transmit a  
report of the condition and progress of the University for the bi-  
ennial period ending June 2d, 1882, including the University years  
1880-81 and 1881-82.

I am Sir, very respectfully,

Your obedient servant,

WILLIAM W. FOLWELL,

President.

# REPORT

OF THE

## UNIVERSITY OF MINNESOTA.

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The last report being the first biennial report, embraced the thirteenth and fourteenth annual reports, the understanding at the time being that the series of annual reports specifically required by law\* would be kept up although the publications would take place biennially. It appearing, however, that the preparation of reports for the intermediate years would employ time and labor to no useful purpose, no fifteenth annual report was made. This second biennial report covers the period which would have been embraced in a fifteenth and a sixteenth annual report. The statistics are given for each year separately.

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### THE BOARD OF REGENTS.

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The Board of Regents is composed at this date of the following gentlemen:

The Hon. GREENLEAF CLARK, M. A., St. Paul; term expires in.....	1883.
The Hon. ORSON V. TOUSLEY, M. A., Minneapolis, " " "	.....1883.
The Hon. JOHN B. GILFILLAN, Minneapolis, " " "	.....1884.
The Hon. KNUTE NELSON, Alexandria, " " "	.....1884.
The Hon. JOHN S. PILLSBURY, Minneapolis, " " "	.....1884.
The Hon. HENRY M. SUBLEY, St. Paul, " " "	.....1885.
The Hon. THOMAS S. BUCKHAM, M. A., Faribault, " " "	.....1885.

*and ex-officio,*

The Governor of the State,	The Hon. LUCIUS F. HUBBARD, St. Paul.
The Superintendent of Public Instruction,	The Hon. DAVID L. KIEHLE, M. A., St. Paul.
The President of the University,	WILLIAM W. FOLWELL, LL.D., Minneapolis.

\* See Rev. Stat. Minn. p. 506, 7th line from bottom.

## OFFICERS OF THE BOARD.

The Hon. HENRY H. SIBLEY, St. Paul, President.  
 The Hon. O. V. TOUSLEY, Minneapolis, Recording Secretary.  
 MR. R. A. DAVISON, Minneapolis, Treasurer.  
 WILLIAM W. FOLWELL, Minneapolis, Corresponding Secretary.

## EXECUTIVE COMMITTEE.

The Hon. JOHN S. PILLSBURY, Minneapolis.  
 The Hon. JOHN B. GILFILLAN, Minneapolis.  
 The Hon. GREENLEAF CLARK, St. Paul.

## MEETINGS.

The annual meeting is fixed by the charter for the second Tuesday in December. There is a meeting on Commencement Day; other meetings occur as called by the President of the Board.

The Executive Committee meet regularly on one of the last secular days of each month.

The following changes have taken place in the board since the last report:

The Hon. Richard Chute resigned his regency and office of recording secretary, October 20, 1881, upon considerations of health and pressing private engagements. On the 25th day of the same month the Governor appointed the Hon. J. B. Gilfillan to fill the vacancy thus occasioned.

The Hon. A. J. Edgerton, having been appointed by the President Chief Justice of the Territory of Dakota, resigned as regent December 22, 1881. The Hon. Knute Nelson was appointed to fill this vacancy February 15, 1882.

On the 31st day of January, 1882, the Hon. William R. Marshall, after many years of laborious and efficient service as a member of the board, submitted his resignation to the Governor, who, on the 1st day of February, appointed in his stead, the Hon. J. S. Pillsbury. It is proper to say that the action of Regent Marshall was prompted by his desire to secure to the University the continued services of Gov. Pillsbury, whose *ex-officio* regency had terminated with his office of governor a few days previously.

February 1st, 1882, Regents Sibley and Buckham, upon the expiration of their terms, were reappointed by the Governor for the usual term of three years.

On the 16th of August, 1882, the Hon. David L. Kiehle was appointed superintendent of public instruction for the State of Minnesota, and became a regent *ex-officio*, succeeding the Hon. David Burt, who, compelled to lay down his work by severe illness, died September 24, 1882. At the annual meeting in December, the board passed, and placed on record, resolutions expressing their appreciation of his long and valuable services and his high character.

On the 29th day of June, 1882, Regent Tousley was granted a leave of absence, and soon after set out for Trieste, Austria, for a residence of indefinite, but not extended duration.

## THE GENERAL FACULTY.

This body is composed of all the professors and assistant professors. Instructors have the right to attend the meetings and participate in discussions, but not to vote. The president of the University presides, having only the casting vote. The general faculty has the oversight and conduct of all matters of general importance, and of the collegiate department. The special faculties manage the concerns of the different colleges of the University.

The membership of the general faculty at the present time is as follows:

WILLIAM W. FOLWELL, PRESIDENT,  
*Political Science.*

JABEZ BROOKS, D. D., PROFESSOR,  
*Greek, and in charge of Latin.*

NEWTON H. WINCHELL, PROFESSOR,  
*State Geologist.*

CHAS. N. HEWITT, M. D., NON-RESIDENT PROFESSOR,  
*Public Health and Hygiene.*

JOHN G. MOORE, PROFESSOR,  
*German.*

MOSES MARSTON, PH. D., PROFESSOR,  
*English.*

CHRISTOPHER W. HALL, PROFESSOR,  
*Geology, Mineralogy and Biology.*

JOHN C. HUTCHINSON, ASSISTANT PROFESSOR,  
*Greek and Mathematics.*

JOHN S. CLARK, ASSISTANT PROFESSOR,  
*Latin.*

MATILDA J. WILKIN, INSTRUCTOR,  
*German and English.*

MARIA L. SANFORD, PROFESSOR,  
*Rhetoric and Elocution.*

WILLIAM A. PIKE, C. E., PROFESSOR,  
*Engineering and in charge of Physics.*

JOHN F. DOWNEY, C. E. PROFESSOR,  
*Mathematics and Astronomy.*

JAMES A. DODGE, PH. D. PROFESSOR,  
*Chemistry.*

ALEXANDER T. ORMOND, PROFESSOR,  
*Mental and Moral Philosophy  
and History.*

CHARLES W. BENTON, PROFESSOR,  
*French.*

EDWARD D. PORTER, PROFESSOR,  
*Agriculture.*

WILLIAM H. LEIB, INSTRUCTOR,  
*Vocal Music.*

WILBUR F. DECKER, INSTRUCTOR,  
*Physics, Shop Work and Drawing.*

EDGAR C. BOWEN, U. S. A., PROFESSOR,  
*Military Science.*

WILLIAM A. NOYES, PH. D., INSTRUCTOR,  
*Chemistry.*

HENRY M. WAITT, C. E., INSTRUCTOR,  
*Engineering and Drawing.*

Professor Winchell, although holding the rank of professor, has been so fully occupied with his duties as State Geologist that the Board were obliged some three years ago to relieve him from teaching.

Professor Hewitt's duties are necessarily confined to two short courses of lectures, one on the hygiene of school life to the new students of each year, the other on sanitary science to each senior class. For these he has exacted no compensation beyond his traveling expenses.

The following changes have been made in the corps of instructors since the last report: At the close of the year 1881-82, the Board of Regents detached the subjects of rhetoric and elocution from the chair of English language and literature, and formed a

separate professorship of rhetoric and elocution, electing Miss Maria L. Sanford to the occupancy.

At the beginning of the year 1881-82, Edgar C. Bowen, Captain U. S. A. (retired) was employed to take charge of the department of military science, and to perform the duties of registrar. This department has suffered from the frequent changes in the incumbency due to the regulations of the war department of the general government. It is hoped that the selection of a professor from the retired list will remedy this evil and give this department an uninterrupted development.

Mr. Wilbur F. Decker, a graduate of the Maine State College, was employed as instructor in shop work, drawing and physics at the beginning of the year 1881-'82. Mr. H. M. Waitt, a graduate of the Massachusetts Institute of Technology and afterwards an instructor in the same institution, was engaged as an assistant in the departments of civil engineering and industrial drawing at the beginning of the present year; and Mr. William A. Noyes, Ph. D., a graduate of the Johns Hopkins University, as an assistant in the chemical laboratory at the same time.

At the date of the last report, the professorship of agriculture was vacant, and the Board were making strenuous efforts to secure a capable and experienced person to take charge of it. These efforts resulted in the employment in January, 1881, of Professor Edward D. Porter of Delaware college, Newark, Delaware, with which institution he had been connected with for some thirty years. Professor Porter brought to the new field the results of a long and varied experience in many lines of practical and scientific research and instruction. His conduct of his department has fully justified the action of the Board in their choice, and has given great satisfaction to the practical agriculturists and horticulturists of the state.

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## INSTRUCTION.

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The actual work performed by faculty and students cannot be better exhibited, perhaps, than by means of the tables which from year to year have appeared in your reports. It should, however, be remembered that no such tables can do more than indicate by means of the public duties performed the vast additional private work of preparation for them.

WORK OF THE YEAR 1880-81.

THE YEAR BEGAN SEPTEMBER 7, 1880, AND ENDED JUNE 21, 1881.

Subjects.	Text Books.	Instructor.	No. of Exercises	Class.	No. of Students	Term.
<b>MATHEMATICS.</b>						
<b>PROF. J. F. DOWNEY.</b>						
Analytical Geometry	Olney	Downey	57	Junior	1	I.
Higher Algebra, 1 §	"	Hutchinson	27	Freshm.	30	I.
" " 2 §	"	Downey	26	"	29	I.
" " 2 §	"	Hutchinson	25	"	29	I.
Differential Calculus	"	Downey	21	Junior	5	II.
Trigonometry, 1 §	"	"	54	Freshm.	29	II.
" " 2 §	"	Hutchinson	51	Sub-Fr.	15	II.
Algebra, 1 §	"	Downey	50	"	18	II.
" " 2 §	"	"	59	Junior	3	III.
Integral Calculus	"	"	58	Sophom.	18	III.
Conic Sections, 1 §	"	Downey	25	"	8	III.
" " 2 §	"	"	12	"	8	III.
Theory of Equations, 1 §	"	Hutchinson	10	"	13	III.
" " 2 §	"	Downey	9	"	8	III.
Solid Geometry, 1 §	Wentworth	Hutchinson	9	Sub-Fr.	21	III.
" " 2 §	"	"	53	"	8	III.
" " 2 §	"	"	52	"	8	III.
<b>ASTRONOMY.</b>						
<b>PROF. J. F. DOWNEY.</b>						
Practical Astronomy	Loomis	Downey	48	Senior	3	III.
<b>CHEMISTRY.</b>						
<b>PROF. J. A. DODGE.</b>						
General Chemistry	Barker	Dodge	55	Sub-Fr.	14	I.
Theoretical Chemistry	Lectures	"	55	Sophom.	12	I.
Analytical Chemistry	Appleton, &c.	"	55 d. h.*	Sen. Jun.	22	I.
" " "	"	"	49 d. h.	"	27	II.
General Chemistry, 1 §	Barker	"	30 d. h.	Sophom.	14	II.
" " 2 §	"	"	55	Freshm.	25	II.
Analytical Chemistry	Fresenius	"	55	"	21	I.
" " "	"	"	55 d. h.	Sen. Jun.	15	II.
" " "	"	"	22 d. h.	Sophom.	7	II.
<b>PHYSICS.</b>						
<b>PROF. WM. A. PIKE, in charge.</b>						
Mechanics	Peck	Pike	55	Sophom.	14	I.
Sound and Heat	Ganot	"	55	Freshm.	30	II.
<b>BOTANY.</b>						
<b>PROF. C. W. HALL.</b>						
Elementary Botany	Gray	Hall	57	Sub-Fr.	29	III.
Advanced Botany	Bessey	"	57	Freshm.	37	III.
Laboratory Work	"	"	40	"	37	III.
<b>ZOOLOGY.</b>						
<b>PROF. C. W. HALL.</b>						
Comparative Zoology	Orton	Hall	56	Soph.	19	III.
Advanced Zoology	Packard	"	56	Junior	21	I.
Laboratory Work	"	"	20	"	21	III.
<b>GEOLOGY AND MINERALOGY.</b>						
<b>PROF. C. W. HALL.</b>						
General Geology	Dana	Hall	57	Senior	31	I.
Economic Geology	Lectures	"	41	"	19	II.
Essays	"	"	30	"	20	I.
Mineralogy	Lectures	"	50	Junior	31	II.
Blowpipe Work	Brush	"	40	"	30	II.

\* Double hours.

Subjects.	Text Books.	Instructor.	No. of Exercises	Class.	No. of Students	Term.
<b>ENGLISH. PROF. M. MARSTON.</b>						
Rhetoric	Hepburn	Sanford	50	Sophom.	38	II.
Exposition	"	"	11	"	40	I.
Compositions	"	"	10	"	27	III.
Exposition	"	"	19	Freshm.	59	II.
Compositions	"	"	10	"	57	III.
Compositions	"	"	11	Sub-Pr.	36	I.
Exposition	"	"	10	"	32	II.
American Literature	Royse	Campbell	65	"	13	I.
Addison, Goldsmith & Burns	Hudson	"	53	"	9	II.
Keble, Scott & Wordsworth	Hudson	"	56	"	7	III.
How to Write Clearly	Abbott	"	64	Freshm.	7	I.
Shakespeare	Roffe	"	57	"	26	III.
Brit. and Am. Oratory	Goodrich	Marston	55	Seniors	11	I.
Orations and Essays	"	"	2 each.	"	27	I.
"	"	"	2 each.	"	27	II.
"	"	"	2 each.	"	26	III.
Philos. of Lit. and Crit	Lectures	"	30	"	29	III.
Orations and Essays	"	"	2 each.	Juniors	38	I.
"	"	"	2 each.	"	38	II.
"	"	"	2 each.	"	38	III.
English Literature	Lectures	"	53	"	33	III.
History English Language	Lectures	"	55	Sophom.	21	I.
Anglo-Saxon	Carpenter	"	55	"	15	II.
"	"	"	56	"	6	III.
Milton	Sprague	"	65	Freshm.	14	II.
<b>GERMAN. PROF. J. G. MOORE.</b>						
Scientific German Prose	Hodge	Moore	54	S. & Jun.	20	I.
Grammar	Whitney	"	54	Junior	19	"
Schiller's Egmont, &c	Buchheim	"	51	Freshm.	22	"
Composition	Comfort	Campbell	54	Sub-Pr.	17	"
Composition	"	"	54	Sub-Pr.	14	"
Goethe's Faust, &c	Hart & Buchheim	Moore	55	Sr & Jun.	24	II.
Grammar and Reader	Whitney	"	55	Junior	18	"
Hst. Ballads and Ger. Hst.	Wagner	"	55	Freshm.	20	"
Composition, Exercises, &c.	Comfort	Campbell	55	Sub-Pr	16	"
"	"	"	55	"	16	"
Hst. of Ger. Lit. &c	Lectures	Moore	59	Sr & Jun	17	III.
Schiller's Jungfrau	Worman	"	59	Junior	16	"
Lessing's Minna von Barnhelm	Buchheim	"	59	Freshm.	16	"
Grammar and Reader	Whitney	Campbell	59	Sub-Pr.	17	"
Grammar	"	"	59	"	10	"
<b>FRENCH. PROF. C. W. BENTON.</b>						
Racine, etc	Bue	Benton	55	Senior	19	I.
Grammar and Reader 1 §	Bocher	"	55	Sophom.	20	I.
" " 2 §	"	"	55	"	24	I.
Moliere, etc	"	"	53	Seniors	21	II.
Trans. into French	Sadler	"	"	"	21	II.
Grammar and Reader, 1 §	Bocher	"	53	Sophom	20	II.
" " 2 §	"	"	53	"	24	II.
Petite Histoire	Lacombe	"	55	Seniors	15	III.
Trans. into French	Sadler	"	"	"	15	III.
French Literature	Lectures	"	"	"	15	III.
Grammar and Reader, 1 §	Bocher	"	55	Sophom.	27	III.
" " 2 §	"	"	55	"	11	III.
La Fontaine Fables	Sanveur	"	"	"	11	III.
<b>LATIN. PROF. J. BROOKS, in charge.</b>						
Horace	Chase & Stuart	Clark	52	Sophom	19	I.
History of Roman Literature	Reference	"	10	"	19	I.
Livy	Lincoln	"	53	Freshm.	9	I.
Roman History	Liddell	"	"	"	9	I.
Cicero, 1 §	Chase & Stuart	"	52	Sub Pr.	11	I.
" " 2 §	"	Hutchinson	51	"	12	I.
Livy	Lincoln	Clark	53	Freshm.	26	I.
Roman History	Liddell	"	"	"	26	I.
Livy, 1 §	Lincoln	"	56	Freshm.	20	II.
Roman History	Liddell	"	"	"	20	II.
Livy, 2 §	Lincoln	"	51	"	12	II.



Subjects.	Text Books.	Instructor.	No. Exercises	Class.	No. Students	Term.
<b>LATIN (Continued.)</b>						
<b>PROF. J. BROOKS IN CHARGE.</b>						
Roman History.....	Liddell.....	Clarke.....	52	Sub-Fr.	12	II.
Virgil.....	Seating.....	".....	52	Sub-Fr.	21	II.
Mythology and Geology.....	Smith & Liddell.....	".....	55	Sophom.	20	III.
Tacitus.....	Tyler.....	".....	15	Sub-Fr.	19	III.
History of Roman Emperors.....	References.....	".....	55	Sub-Fr.	19	III.
Virgil.....	Seating.....	".....	55	Sub-Fr.	19	III.
Mythology and Geology.....	Smith & Liddell.....	".....	55	Sub-Fr.	19	III.
<b>GREEK.</b>						
<b>PROF. J. BROOKS, D. D.</b>						
Plato—Text.....	Davies.....	Brooks.....	53	Junior	11	I.
Lectures.....	".....	".....	2	"	11	I.
Essays.....	".....	".....	33	"	11	I.
Xenophon.....	Brooks.....	".....	56	Sub-Fr.	10	I.
Homer—Text.....	Bolse.....	Hutchinson.....	50	Freshm.	19	I.
Essays.....	".....	".....	57	"	19	I.
Examinations for entrance and conditions.....	".....	Brooks & Hutchinson.....	33	"	19	I.
Homer—Text.....	Bolse.....	Hutchinson.....	50	Freshm.	15	II.
Æschylus—Text.....	Woolsey.....	Brooks.....	53	Sophom.	12	II.
Essays.....	".....	".....	36	"	12	II.
Xenophon.....	Bolse.....	".....	56	Sub-Fr.	12	II.
Plato—Text.....	Davies.....	".....	53	Sophom.	10	III.
Essays.....	".....	".....	22	"	10	III.
Demosthenes.....	Tyler.....	".....	60	Freshm.	18	III.
Xenophon.....	Bolse.....	Hutchinson.....	55	Sub-Fr.	9	III.
Examinations for Conditions.....	".....	Brooks.....	3	"	9	III.
<b>MENTAL AND MORAL PHILOSOPHY.</b>						
<b>PROF. A. T. ORMOND, (See HISTORY.)</b>						
History of Philosophy.....	Lectures.....	Ormond.....	55	Senior	23	I.
Ethics.....	".....	".....	55	"	26	II.
Natural Theology.....	".....	".....	15	"	7	III.
Psychology.....	".....	".....	55	Junior	35	III.
<b>HISTORY.</b>						
<b>PROF. A. T. ORMOND.</b>						
Ancient History.....	Rawlinson.....	Ormond.....	55	Sub. Fr.	35	I.
Mediæval ".....	Green.....	".....	22	Freshm.	49	II.
Modern ".....	Swinton.....	".....	23	Sophom.	20	III.
History of Civilization.....	See Political	Science below				
<b>POLITICAL SCIENCE, ETC.</b>						
<b>MR. WM. W. FOLWELL.</b>						
History of Civilization.....	Gulzot.....	Folwell.....	39	Junior	34	I.
General Philology.....	Lectures.....	".....	12	"	37	I.
Civil Government.....	De Toqueville.....	".....	26	Senior	24	II.
Constitution U. S.....	Lectures.....	".....	13	"	24	II.
Constitution Minnesota.....	".....	".....	7	"	24	II.
International Law.....	Woolsey.....	".....	8	"	16	II.
Political Economy.....	Lectures.....	".....	50	"	28	III.
<b>PUBLIC HEALTH.</b>						
<b>DR. C. N. HEWITT.</b>						
Sanitary Science.....	Lectures.....	Hewitt.....	8	Seniors	25	III.
School Hygiene.....	".....	".....	6	Sub Fr.	30	III.
<b>INDUSTRIAL DRAWING.*</b>						
<b>PROF. WM. A. PIKE, in charge.</b>						
Projections, etc.....	".....	Pike.....	57	Freshm.	28	I.
Descriptive Geometry.....	Church.....	Pike.....	55	Sophom.	11	II.
Geometrical Drawing.....	Pike.....	Pike.....	55	Sub-Fr.	16	II.
Mechanical ".....	Pike.....	Mayo.....	25	Evening	64	III.
<b>AGRICULTURE.</b>						
<b>PROF. E. D. PORTER.</b>						
(Chair vacant first half of year.)						

\*All Double hours.

SUPERINTENDENT'S REPORT.

Subjects.	Text Books.	Instructor.	No. Exercises	Class.	No. Students	Term.
<b>CIVIL ENGINEERING.</b>		PROF. WM. A. PIKE.				
Surveying.....	Lectures ....	Pike .....	42	Freshm.   30	III.	
<b>MILITARY SCIENCE.</b>		(Chair Vacant.)				
<b>EDUCATION.</b>						
Theory of Teaching.....	Lectures ....	Sanford .....	10	Atlarge   35	II.	
<b>MUSIC.</b>						
Vocal Lessons.....	Selected .....	Leib .....	20	Atlarge   75	Year	

## WORK OF THE YEAR 1881-82.

THE YEAR BEGAN SEPTEMBER 6TH, 1881, AND ENDED JUNE 1ST, 1882.

Subjects.	Text Books.	Instructor.	No. Exercises	Class.	No. Students	Term
<b>ASTRONOMY. PROF. J. F. DOWNEY.</b>						
Descriptive Astronomy.....	Loomis .....	Downey.....	54	Senior...	7	1
<b>MATHEMATICS. PROF. J. F. DOWNEY.</b>						
Higher Algebra .....	Olney.....	Downey.....	54	Freshm..	43	1
Trigonometry.....	" .....	" .....	34	Freshm..	39	11
Differential Calculus .....	" .....	" .....	54	Junior..	8	1
Conic Sections .....	" .....	" .....	34	Sophom..	4	10
Integral Calculus .....	" .....	" .....	54	Junior..	7	1
Plane Geometry.....	Wentworth.....	" .....	54	Special..	8	1
Algebra.....	Olney.....	" .....	54	" .....	2	11
Plane Geometry.....	Wentworth.....	" .....	54	" .....	2	11
Algebra.....	Olney.....	" .....	54	" .....	2	11
Algebra.....	" .....	Hutchinson.....	28	Freshm..	31	1
Algebra, § 1.....	" .....	" .....	52	Sub-Fr..	23	11
" § 2.....	" .....	" .....	52	" .....	12	11
Solid Geometry, § 1.....	Wentworth.....	" .....	55	" .....	17	11
" § 2.....	" .....	" .....	55	" .....	15	11
Analytical Geometry.....	Olney.....	" .....	13	Sophom..	18	11
<b>CHEMISTRY. PROF. J. A. DODGE.</b>						
Elementary Chemistry.....	Barker.....	Dodge.....	54	Sub-Fr..	10	1
Applied Chemistry.....	Lectures.....	" .....	53	Sophom..	21	1
Analytical Chemistry.....	Appleton.....	" .....	54	Sen&Jun	7	1
Analytical.....	Lab. Practise.....	" .....	33	Sophom..	9	1
" .....	" .....	" .....	65	Sen&Jun	9	1
General Chemistry.....	Barker & Lee's.....	" .....	53	Fr. Sel..	17	1
" abridged.....	Barker.....	" .....	51	Fr. C&M	17	1
Analytical Chemistry.....	Lab. Practise.....	" .....	22	Sophom..	12	1
" .....	" .....	" .....	55	Sen&Jun	17	1
<b>PHYSICS. PROF. WM. A. PIKE, in charge.</b>						
Mechanics.....	Goodeve.....	Pike.....	54	Jun. C&M	7	1
Elementary Physics.....	Peck's Ganol.....	Decker.....	54	So. C&M	14	1
Mechanics.....	Peck.....	" .....	54	Soph. Sc.	11	1
Higher Mechanics.....	Rankin.....	Pike.....	52	Jun. C&M	4	1
Physics.....	Atkinson.....	Decker.....	49	Freshm..	14	1
<b>BOTANY. PROF. C. W. HALL.</b>						
Botany.....	Laboratory.....	Hall.....	53	Fr. Sel..	10	1
" .....	Gray.....	" .....	53	Fr. C&M	10	1
" .....	" .....	" .....	53	S. Fr. B. D.	10	1
<b>ZOOLOGY. PROF. C. W. HALL.</b>						
Zoology.....	Packard.....	Hall.....	56	Junior..	9	1
" .....	Laboratory.....	" .....	56	Junior..	9	1
" .....	Orton.....	" .....	53	Sophom..	10	1
" .....	Laboratory.....	" .....	10	" .....	10	1
<b>GEOLOGY. PROF. C. W. HALL.</b>						
General Geology.....	Lectures.....	Hall.....	56	Senior..	9	1
Economic .....	" .....	" .....	57	" .....	9	1

Subject.	Text Books.	Instructor.	No. Exercises	Class.	No. Students	Term.
<b>MINERALOGY. PROF. HALL.</b>						
Mineralogy .....	Lectures .....	Hall .....	57	Junior...	21	II.
" .....	Laboratory .....	" .....	22	Junior...	20	II.
<b>ENGLISH. PROF. M. MARSTON, PH. D.</b>						
British Oratory .....	Goodrich .....	Marston .....	53	Senior ..	14	I.
History English Language .....	Lectures .....	" .....	53	Sophom.	5	I.
Milton .....	Sprague .....	" .....	53	Freshm.	6	II.
Anglo-Saxon .....	Carpenter .....	" .....	53	Sophom.	5	II.
English Criticis-m .....	Lectures .....	" .....	30	Senior...	5	III.
English Literature .....	Shaw & Lect's .....	" .....	53	Junior...	25	III.
English Criticism .....	Abbott .....	Campbell .....	55	Freshm.	9	I.
American Authors .....	Roysce .....	" .....	54	Sub-Fr.	10	I.
Addison and Goldsmith .....	Hudson .....	" .....	52	" .....	19	II.
Shakespeare .....	Rolle & Abbott .....	" .....	57	Freshm.	5	III.
Macaulay .....	" .....	" .....	57	Sub-Fr.	9	III.
<b>GERMAN. PROF. J. G. MOORE.</b>						
Goethe, Faust .....	Hart .....	Moore .....	33	Sen&Jun	22	I.
Schiller .....	Sharfer .....	" .....	22	Sen&Jun	22	I.
Grammar .....	Whitney .....	" .....	55	Junior...	16	I.
Schiller's Prose .....	Buechhelm .....	" .....	55	Freshm.	20	I.
Tragedies .....	Comfort .....	Campbell .....	55	Sub-Fr.	15	I.
Stiller, Dramas .....	Kreuzel .....	Moore .....	21	Sen&Jun	22	II.
Lessing, Laccou .....	Kratz .....	" .....	32	Sen&Jun	22	II.
Grammar and Reader .....	Whitney .....	" .....	53	Junior...	16	II.
German History .....	Taylor .....	" .....	53	Freshm.	23	II.
Historical Ballads .....	Wagner .....	" .....	53	" .....	24	II.
Grammar and Reader .....	Whitney .....	Campbell .....	53	Sub-Fr.	17	II.
Lessing's Prose .....	Deuzel .....	Moore .....	56	Sen&Jun	18	III.
Deutsche Lyrik, etc. .....	Buechhelm .....	" .....	56	Sen&Jun	18	III.
Schiller, Jungfrau .....	Worman .....	" .....	56	Junior...	13	III.
Lessing, Minna von B .....	Buechhelm .....	" .....	56	Freshm.	18	III.
Reader and Exercises .....	Whitney .....	Campbell .....	57	Sub-Fr.	17	III.
<b>FRENCH. PROF. C. W. BENTON.</b>						
Racine, Andromaque .....	Jarves .....	Benton .....	56	Senior...	19	I.
Moliere, Misanthrope .....	Joynes .....	" .....	" .....	" .....	19	I.
Grammar, Francaise .....	Noel & Ch .....	" .....	" .....	" .....	19	I.
Grammar and Reader, 1 § .....	Bocher .....	" .....	56	Sophom.	20	II.
" .....	" .....	" .....	" .....	" .....	23	II.
Chateaubriand .....	" .....	" .....	" .....	Senior...	18	II.
Mme. de Sevigne, Le Cld. .....	J. Bue .....	" .....	" .....	" .....	18	II.
French Compositions .....	" .....	" .....	" .....	" .....	18	II.
Grammar and Reader, 1 § .....	Bocher .....	" .....	55	Sophom.	20	II.
" .....	" .....	" .....	" .....	" .....	23	II.
Frascon, Telemaque, 1 § .....	" .....	" .....	" .....	" .....	23	II.
" .....	" .....	" .....	" .....	" .....	23	II.
Voltaire, Gull, le Conquerant .....	Dubourg .....	" .....	" .....	Senior...	22	III.
Women, Calomnie .....	Brette .....	" .....	" .....	" .....	22	III.
Voltaire, Jeanne D'Arc .....	" .....	" .....	" .....	" .....	22	III.
Reader and Grammar .....	Bocher .....	" .....	56	Sophom.	27	III.
Frascon, Telemaque .....	" .....	" .....	56	" .....	27	III.
Mme. de Sevigne, La Jolie fait, &c. .....	" .....	" .....	" .....	" .....	27	III.
<b>LATIN. PROF. J. BROOKS, in charge.</b>						
Caeser, Nec. 1 .....	Chase & Stuart .....	Clark .....	52	Sub-Fr.	18	I.
" .....	" .....	" .....	52	" .....	7	I.
Uly, Nec. 2 .....	Lincoln .....	Hutchinson .....	51	Freshm.	16	I.
" .....	" .....	Clark .....	52	" .....	7	I.
Horace, Text .....	Chase & Stuart .....	" .....	52	Sophom.	17	I.
Essays &c. .....	" .....	" .....	34	" .....	17	I.
Præc. for Ent. and Cond. .....	" .....	" .....	" .....	" .....	38	I.
Uly .....	Chase & Stuart .....	Clark .....	51	Sub-Fr.	23	II.
" .....	Lincoln .....	" .....	15	Freshm.	20	II.
Uly, Cat. and Jug .....	Weale .....	" .....	36	" .....	20	II.
Essays, &c. .....	" .....	" .....	20	" .....	20	II.
Præc. Capitul. .....	Harrington .....	" .....	35	Junior...	12	II.
Uly de Senectute .....	Chase & Stuart .....	" .....	15	" .....	19	II.
Observations on Cond. .....	" .....	" .....	" .....	" .....	19	II.
Uly .....	Chase & Stuart .....	Clark .....	55	Sub-Fr.	21	III.

Subject.	Text Books.	Instructor.	No. of Exercises	Class.	No. of Students.	Term
<b>LATIN. (Continued.) PROF. J. BROOKS, D. D.</b>						
Tacitus.....			40	Sophom..	12	III.
Cicero de Amicitia.....		Clark	15	"	11	III.
Essays, &c.....		"	12	"	11	III.
Tacitus.....		"	10	Senior	3	III.
Virgil.....	Searing	"	20	"	3	III.
Examinations on Cond.....					18	III.
<b>GREEK. PROF. J. BROOKS, D. D.</b>						
Xenophon.....	Brooks	Brooks	55	Sub-Fr..	8	I.
Homer.....	Davies	"	57	Junior	9	"
Xenophon, Memorabilia.....	Winans	Hutchinson	55	Freshm..	7	"
Xenophon, Anabasis.....	Boise	Brooks	61	Sub-Fr..	8	II.
Aeschylus, Text.....	Woolsey	"	51	Sophom..	16	"
Essays.....			45	"	15	"
Xenophon, Mem. and Symp.....	Winans	Hutchinson	53	Freshm..	7	"
Examination on Conditions.....		Brooks	7	"	"	"
Xenophon, Anabasis.....	Boise	Brooks	57	Sub-Fr..	10	III.
Plato.....	Tyler	"	56	Sophom..	13	"
Demosthenes.....		Hutchinson	55	Freshm..	2	"
Exams. for Ent. and Cond.....		Brooks	20	"	"	"
<b>MENTAL AND MORAL PHILOSOPHY. PROF. A. T. ORMOND.</b>						
History of Philosophy.....	Lectures	Ormond	55	Senior...	25	I.
Ethics.....	"	"	51	Senior...	32	II.
Psychology.....	"	"	51	Junior...	24	II.
Natural Theology.....	"	"	20	Senior...	3	III.
Logic.....	Jevons & Lect.	"	57	Junior...	25	II.
<b>HISTORY. PROF. A. T. ORMOND.</b>						
Ancient History.....	Schmitz	Ormond	22	Sub-Fr..	26	I.
Medieval History.....	Swinton	"	22	Freshm..	33	II.
Modern History.....	"	"	23	Sophom..	24	III.
History of Civilization.....	See Political Science, &c., below.					
<b>POLITICAL SCIENCE, ETC. MR. WM. W. FOLWELL.</b>						
History of Civilization.....	Guizot	Folwell	36	Juniors..	27	I.
General Philology.....	Lectures	"	13	Junior...	28	I.
Civil Government.....	DeTocqueville	"	25	Senior...	25	II.
Constitution U. S.....	Lectures	"	10	Senior...	27	II.
" Minn.....	"	"	6	Senior...	27	II.
International Law.....	Woolsey	"	8	Senior...	6	III.
Political Economy.....	Lectures	"	49	Senior...	34	III.
<b>RHETORIC AND ELOCUTION. PROF. M. L. SANFORD.</b>						
Orations.....		Sanford	99	Senior...	33	I.
".....		"	99	"	33	II.
".....		"	132	"	43	III.
Rehearsals.....		"	99	Senior...	33	I.
".....		"	99	"	33	II.
".....		"	165	"	43	III.
Orations.....		"	96	Junior...	32	I.
".....		"	93	"	31	II.
".....		"	93	"	31	III.
Rehearsals.....		"	61	Junior...	32	I.
".....		"	62	"	32	II.
".....		"	124	"	31	III.
Rhetoric.....	Hepburn	"	60	Sophom..	43	II.
Orations.....		"	80	"	60	III.
Rehearsals.....		"	80	"	60	III.
Elocution.....		"	42	"	47	III.
Composition.....		"	12	Freshm..	27	I.
".....		"	12	Sub-Fr..	27	II.
".....		"	12	Freshm..	27	III.
Elocution.....		"	12	Sub-Fr..	27	III.

Subject.	Text Books.	Instructor.	No. Exercises.	Class.	No. Students	Term.
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**PUBLIC HEALTH.**

PROF. O. N. HEWITT.

Military Science.....	Lectures.....	Hewitt.....	6	Senior..	30	III.
School Hygiene.....			6	Sub-Fr..	50	III.

**INDUSTRIAL DRAWING.\***

PROF. WM. A. PIKE, in charge.

Projection Drawing.....		Pike.....	54	Freshm..	11	I.
		Decker.....	54	Specials.	8	I.
Descriptive Geometry.....		Pike.....	52	Soph....	19	II.
Geometrical Drawing.....		Decker.....	52	Sub-Fr..	14	II.
General Drawing.....		Pike & Decker	52	Specials	10	II.
			25	Evening.	51	II.

**AGRICULTURE.**

PROF. E. D. PORTER.

"How Crops Grow".....	Johnson.....	Porter.....	48	Junior..	2	I.
Horticulture.....	Lindley.....	".....	42	".....	2	I.
Agricultural Chemistry.....	Johnson.....	".....	41	".....	1	II.
Limatology.....	Lectures.....	".....	26	".....	1	II.
Atmosphere and Soils.....	Johnson.....	".....	16	".....	1	II.
Scientific Agriculture.....	Fendleton.....	".....	48	Senior..	1	III.
Comparative Anatomy.....	".....	".....	26	".....	1	I.
Farm Crops.....	Stevens.....	".....	48	".....	1	II.
Veterinary Medicine.....	Law.....	".....	42	".....	1	II.
Farm Animals.....	Stevens.....	".....	32	".....	1	III.
Practical Agriculture.....	".....	".....		Daily 3 Mos.		
				Special	22	III.

**CIVIL AND MECHANICAL ENGINEERING.**

PROF. WM. A. PIKE.

R. R. Curves, etc.....	Henck.....	Pike.....	54	Jun. C. E.	10	I.
Field Work.....	".....	".....	45	".....	10	I.
Engr. Drawing.....	".....	".....	52	".....	2	II.
Mechanics.....	Rankin.....	".....	54	".....	4	III.
Field Work and Drawing.....	".....	".....	54	".....	4	III.
Surveying.....	Lectures.....	".....	20	Freshm..	17	III.
Machinery.....	Rankin.....	".....	54	Jun. M. E.	1	III.
Use Work.....	".....	Decker.....	20	M. E. & Sp.	4	I.
Forge Work.....	".....	".....	42	M. E. & Sp.	4	II.
			54	M. E. & Sp.	4	III.

**MILITARY SCIENCE.**

PROF. E. C. BOWEN, U. S. A.

Squad Drill School of Soldiers	Upham's Infantry Tactics.	Bowen.....	20	Sophom..	36	I.
" " " "		".....	20	Freshm..	22	I.
" " " "		".....	20	Sub-Fr..	21	I.
" " " "		".....	23	Sophom..	11	II.
" " " "		".....	10	".....	24	III.
" " " "		".....	10	Freshm..	15	III.
			10	Sub-Fr..	22	III.

**MUSIC.**

MR. WM. H. LEIB.

Vocal Lessons.....	Selected.....	Leib.....	30	At large	75	All.
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\* All double hours.

## NOTES ON THE FOREGOING TABLES.

1. This being the first report subsequent to the dropping of the second preparatory year (called the Fourth Class), all the subjects taught therein disappear from the lists, viz.: Greek Grammar and Reader; Cæsar's Commentaries and Cicero's Orations; Natural Philosophy, Physical Geography, Physiology and Elementary Astronomy; English Composition, English History and English Word Analysis; Plane Geometry, General History and Free Hand Drawing.

2. Other changes by consolidation or omission are due to the modifications in the courses of study described in the last report, p. 55.

3. Attention is particularly asked to the following additions to the work of the faculty.

### I. *The Evening Drawing School.*

This instruction was opened by Professor Pike in November, 1880, and a course of twenty-five free lessons in mechanical drawing, varied to suit different needs, was given to sixty-four different students as above reported. These students were young mechanics residing in the neighborhood of the University, who gladly embraced the opportunity. At the close of the course they testified their appreciation of this instruction by the presentation of a handsome memorial to Professor Pike.

At the opening of the course Gen. C. C. Washburn offered a prize of the value of twenty-five (25) dollars to that member of the class who should evince the greatest improvement and diligence. This prize, Knight's Mechanical Dictionary, was awarded by a committee to Mr. Frank H. Brown, of Monticello, Minn. The second prize, a fine set of draughting instruments donated by Chas. D. Whitall & Co., was awarded to Mr. E. C. Amy, of Baraboo, Wis.

The same course of instruction was again opened in November, 1881, and carried on with like interesting and substantial results.

### II. *The Course in Shop Work.*

This was opened in the basement rooms of the Agricultural College building soon after the beginning of the year 1881-82. The space being limited, the outfit was accordingly not extensive, but it was complete as far as it went. It consisted of a wood shop, with benches, and lathe, and wood-working tools; a vise shop, with benches, vises, files and other "fitting" tools; and a forge shop, with a steam engine of eight-horse power, eight forges, anvils and the necessary forging tools. On account of delays, the wood shop was not used. Ten different young men took the vise or forge work, under immediate instruction of Mr. W. F. Decker, Professor Pike being in charge of the department, that of mechanical engineering. The results, although on a small scale, were most satis-

factory. The work of the young men may speak for itself. The general object of this kind of work is to train young mechanics and mechanical engineers in such a way that they may be competent to understand and test all kinds of fabrics and constructions of wood or metal. It is not the purpose to make tin-smiths, or joiners, but to inculcate the principles and methods by which all smithing and carpentry are done.

### *III. The Summer School of Science and Letters.*

This instruction was opened in July, 1881, and the credit of its organization is due, in the largest degree, to Professor C. W. Hall. The following courses were given:

1. A course of 20 lectures in Botany, by Professor C. E. Bessey, of the Iowa State Agricultural College, at Ames, Iowa, well and widely known as a successful teacher, author and investigator. The lectures were accompanied by laboratory work, under Prof. Bessey's supervision, in which the microscope and other instruments were handled and applied by the students themselves.
2. A course of lectures in Chemistry by Prof. James A. Dodge, accompanied by laboratory work.
3. A course of lectures in Geology by Prof. C. W. Hall, briefly relating to the geology and mineralogy of our State.

These courses began July 5th and continued through the month. The object as announced was "to afford teachers and others interested in the practical study of science an opportunity of becoming acquainted with the methods of original investigation and of teaching from actual specimens."

Forty-four persons, nearly all of them teachers of our own state and of Wisconsin, attended at some or all of the courses. The expressions of satisfaction and of thankfulness for the opportunities thus offered and enjoyed were general and emphatic. The only charge made was a laboratory fee of one dollar. The Board of Regents, at the annual meeting in December, 1882, passed resolutions of thanks to the officers engaged, all of whom gave their instruction without charge.

Encouraged by the success of the previous year, members of the Faculty, Prof. Hall being most active, determined to repeat the experiment. Accordingly, in the summer of 1882, the following program was published, and substantially carried out:



## THE UNIVERSITY OF MINNESOTA.

### SUMMER SCHOOL FOR TEACHERS.

Courses of Instruction in Botany, Geology, German, English and Rhetoric will be opened at the University of Minnesota, July 5th, 1882, to continue five weeks. The essential features of the plan of last year will be retained, viz: offering all the work that can be accomplished by those in attendance, and making a simple study the leading feature of the course.

The assistance of Mr. J. C. Arthur, for two years Prof. Bessey's Demonstrator in Botany, in the Agricultural college in Iowa, and subsequently Instructor of Botany in the University of Wisconsin, has been secured to continue the work in that science so successfully opened one year ago.

The courses to be offered are as follows:

I. Botany, Mr. J. C. Arthur. *a*—Morphology of the Vegetable Cell. *b*—Special Structure of Plants, considered by Classes. *d*—Bibliography and History of Botany. *c*—Vegetable Histology and Physiology. The laboratory work will be a prominent feature of the course, and will be arranged for both advanced students and beginners. The Compound Microscope will be used, altho' considerable attention will be given to the examination of both lower and higher plants by the aid of the simple lens. The course aims to present the more important facts of the science, and to start the student along a line of observation which can be pursued afterward without requiring the oversight of a teacher.

II. Geology, Prof. C. W. Hall. *a*—An outline of Descriptive Mineralogy. *b*—The Rocks and Minerals of Minnesota. Laboratory will accompany the course, aiming especially to accustom students to determine our most common rocks and minerals at sight, or by the application of the simplest chemical and blow pipe tests.

III. German, Prof. J. G. Moore. A course of twelve lessons in the elements of German, especially adapted to the wants of those intending to teach the language. Special attention will be given to the subject of pronunciation and formation of sentences.

IV. English, (two hours per week) Prof. Marston. The course will consist of lectures on the history, philosophy and grammar of the English language.

V. Rhetoric and Elocution, (three hours per week) Prof. Maria L. Sanford. The work in Rhetoric will consist of exemplifications of the principles of the subject drawn from the masterpieces of English Literature. The aim will be to show how our language has been actually used, and by what means a correct and elegant style can be acquired. About one-third of the time will be given to practice in Elocution. Students who have text-books in Rhetoric or in English Literature, or copies of the work of our standard poets and prose writers will find it an aid to have these books at hand.

The equipment for carrying on the work of this summer school will be simple. The Laboratories, Museums, the Library and the Conservatory of the University will be brought into constant use. The only charge for attendance will be a laboratory fee of \$1.00 per week; the lectures are wholly free, and any one of all of the courses may be attended. Good board can be obtained in the vicinity of the University for from \$4.00 to \$6.00 per week.

Although the courses are undertaken principally to offer the teachers of Minnesota the advantages of the State University and its equipment, all others who love study well enough to come and work with us will be heartily welcomed and helped.

Lectures and laboratory work will begin Wednesday, July 5th, at 9 A. M., and close Saturday, July 29th.

MINNEAPOLIS, May 24th, 1882.

## ATTENDANCE AT SUMMER SCHOOL FOR TEACHERS, JULY, 1882.

Seventy-three persons, sixty-four ladies, and nine gentlemen were in attendance on these courses. The attendance on the literary instruction was quite as large as upon the scientific. The officers engaged were much gratified at the results of their gratuitous endeavors.

Similar success has attended "summer courses" in other places. It would appear that college boards and university regents may soon be called upon to recognize the demand for such instruction, and to organize it as a permanent part of the work. It cannot be expected that professors will conduct such instruction without compensation indefinitely.

*IV. The Farmers' Lecture Course.*

This course was first given in February, 1882, under the management of Prof. E. D. Porter. The opening address was given February 27, by the Hon. Chas. B. Loring, U. S. Commissioner of Agriculture, in the Assembly Hall of the University, on "The Mutual Relations of American Industries." The leading course of lectures was that by Mr. Willis P. Hazard, on the Breeding and Management of Cattle. Other courses of various lengths were given by Hon. T. H. Saunders, Dr. G. A. Dalimere, Mr. J. H. Harris, and Prof. E. D. Porter.

Over two hundred ladies and gentlemen were in attendance upon some or all of the lectures, not counting members of other departments of the University.

The great success of this enterprise was no surprise to the writer, who in 1874 urged the Board of Regents to adopt a similar one. The idea of the farmers' lecture course is to bring the practical agriculturists and horticulturists face to face with those men of science who devote their lives to the application of science to the processes of the farm and the garden. There were no charges or ceremonies attending admission, but the lectures were offered free to all, without conditions. The discussions which followed the lectures were lively and helped to emphasize the more important practical points. This in my opinion is the best service which the Agricultural College can render to the State, viz: to place in the hands of the actual farmers of to-day the proved results of the science of all the past. The number of young men desiring to pursue a full course of agricultural studies still remains, here as every where else, very small.

Mr. Wm. J. Barrett received the degree of Bachelor of Agriculture in June last. As an employe of the department Mr. Barrett had acquired an unusual amount of practical skill in gardening and green-house management. Many students of other departments were employed in the practical operation of the Agricultural College, thus widening its indirect influence upon the body of students.

## ATTENDANCE.

THE FOLLOWING TABLES EXHIBIT THE ENROLLMENT AND CLASSIFICATION OF THE STUDENTS.

## SUMMARY, 1880-81.

COLLEGE OR DEPARTMENT.	CLASS.	Gentlemen.	Ladies.	Total.
Science, Literature and the Arts.	{ Graduate.....		1	1
	{ Senior.....	20	9	29
	{ Junior.....	17	9	26-56
Mechanic Arts.....	{ Specials.....	2		2
	{ Evening Drawing.....	62		62-64
Collegiate Department.....	{ Sophomore, I.....	33	20	53
	{ Freshman, II.....	49	19	68
	{ Sub-Freshman, III.....	43	13	56
	{ Special Students.....	21	17	38-215
Totals.....		247	88	335

## OR BY CLASSES ONLY.

Graduate.....	1
Seniors—of all Departments.....	29
Juniors—of all Departments.....	26
Sophomores—Collegiate Department.....	53
Freshmen—Collegiate Department.....	68-177
Sub-Freshmen—Collegiate Department.....	56-56
Special Students.....	40-40
Evening Drawing.....	62-64
Total.....	335

THE DISTRIBUTION OF STUDENTS IN THE VARIOUS DEPARTMENTS, CLASSES AND COURSES IS SHOWN AS FOLLOWS:

## COLLEGE OF SCIENCE, LITERATURE AND ART.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Senior.....	{ Classical.....	10	2	12
	{ Scientific.....	7	3	10
	{ Modern.....	3	4	7
Totals.....		20	9	29
Junior.....	{ Classical.....	6	2	8
	{ Scientific.....	7	2	9
	{ Modern.....	3	6	9
Totals.....		16	10	26

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COLLEGE OF MECHANIC ARTS.

CLASS.	COURSE.	Gentlemen.	Ladies,	Total.
Special.....	{.....	2	.....	2
Evening Drawing.....		62	.....	62
Totals.....	.....	64	.....	64

COLLEGIATE DEPARTMENT.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Sophomore.....	{ Classical.....	13	3	16
	{ Scientific.....	16	3	19
	{ Modern.....	4	11	18
Totals.....	.....	33	20	53
Freshmen.....	{ Classical.....	21	3	24
	{ Scientific.....	24	8	32
	{ Modern.....	4	8	12
Totals.....	.....	49	19	68
Sub-Freshman.....	{ Classical.....	15	1	16
	{ Scientific.....	22	4	26
	{ Modern.....	6	8	14
Totals.....	.....	43	13	56
Special Students.....	.....	21	17	38
Totals.....	.....	146	69	215

Two hundred and thirty-eight (238) students were enrolled as residents of Minnesota, the following counties being represented:

Blue Earth, 8; Brown, 2; Carver, 2; Dakota, 5; Dodge, 5; Douglas, 1; Faribault, 2; Fillmore, 15; Freeborn, 4; Goodhue, 10; Hennepin E., 37; Hennepin W., 65; Houston, 2; Le Sueur, 4; Lyon, 3; McLeod, 4; Meeker, 4; Mower, 3; Nicollet, 7; Olmstead, 6; Polk, 2; Ramsey, 13; Rice, 4; Rock, 1; St. Louis, 1; Scott, 2; Sherburne, 1; Stearns, 3; Steele, 5; Stevens, 1; Wabasha, 6; Waseca, 1; Washington, 2; Winona, 1; Wright, 4; — Thirty-five counties.

Thirty-three were registered from other States and countries, to-wit:

Dakota Territory, 8; England, 1; Illinois, 2; Iowa, 8; Kansas, 1; Maine, 1; Massachusetts, 1; Michigan, 1; Montana Territory, 1; New York, 1; Nova Scotia, 1; Ohio, 3; Pennsylvania, 1; Vermont, 1; Wisconsin, 2; — sixteen States and countries.

## SUMMARY, 1881-82.

COLLEGE OR DEPARTMENT.	CLASS.	Gentlemen.	Ladies.	Total.
Science, Literature and the Arts.....	{ Senior.....	18	14	32
	{ Junior.....	8	7	15— 47
Mechanic Arts.....	{ Senior.....			
	{ Junior.....	4		4
	{ Special.....	14		14— 18
Agriculture.....	Senior.....	1		1— 1
Collegiate Department.....	{ Sophomore, I.....	39	11	50
	{ Freshman, II.....	25	8	33
	{ Sub-Freshm. III.....	44	27	71
	{ Special Students.....	24	9	33— 187
Totals.....		177	70	247

## OR BY CLASSES ONLY.

Seniors—of all Departments.....	53
Juniors—of all Departments.....	19
Sophomores—Collegiate Department.....	50
Freshmen—Collegiate Department.....	53
Sub-Freshmen—Collegiate Department.....	71
Special Students.....	47
Total.....	293
Candidates for Masters' Degrees.....	6
Attending Summer School of Science.....	6
Attending Evening Drawing School.....	31
Attending Farmers' Lecture Course.....	17
Grand total.....	406

## THE DISTRIBUTION OF STUDENTS IN THE VARIOUS DEPARTMENTS' CLASSES AND COURSES WAS AS FOLLOWS:

## COLLEGE OF SCIENCE, LITERATURE AND ART.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Senior.....	{ Classical.....	8	5	13
	{ Scientific.....	8	2	10
	{ Modern.....	2	6	8
Total.....		18	14	32
Junior.....	{ Classical.....	7	1	8
	{ Scientific.....	1	2	3
	{ Modern.....	0	1	1
Total.....		8	4	12

## COLLEGE OF MECHANIC ARTS.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Senior .....				
Junior .....	{ Mech. Engineering .....	1		1
Special .....	{ Civil Engineering .....	3		3
Evening Drawing .....		14		14
		51		51
Totals .....		69		69

## COLLEGE OF AGRICULTURE.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Senior .....	Regular .....	1		1
Farmers .....	Lecture .....	152	39	191
Totals .....		153	39	192

## COLLEGIATE DEPARTMENT.

CLASS.	COURSE.	Gentlemen.	Ladies.	Total.
Sophomore .....	{ Classical .....	14	3	17
	{ Scientific .....	21	3	24
	{ Modern .....	1	5	6
Total .....		36	11	47
Freshman .....	{ Classical .....	10	1	11
	{ Scientific .....	11	2	13
	{ Modern .....	1	5	6
Total .....		22	8	30
Co-Freshman .....	{ Classical .....	17	2	19
	{ Scientific .....	21	10	31
	{ Modern .....	6	15	21
Total .....		44	27	71
Special Students .....		38	9	47
Totals .....		114	55	169

Two hundred and twenty-three (223) were enrolled as residents of Minnesota, the following counties being represented:

Blue Earth, 8; Brown, 1; Carver, 3; Clay, 2; Dakota, 6; Dodge, 2; Faribault, 3; Fillmore, 10; Freeborn, 3; Goodhue, 13; Henne-

pin E., 39; Hennepin W., 60; Houston, 2; Le Sueur, 5; Lyon, 1; McLeod, 1; Martin, 1; Meeker, 5; Mower, 8; Nicollet, 4; Olmstead, 4; Ramsey, 10; Rice, 5; Rock, 1; St. Louis, 1; Stearns, 3; Steele, 4; Stevens, 1; Wabasha, 3; Waseca, 1; Washington, 1; Winona, 1; Wright, 7;—Thirty-three counties.

Thirty students were enrolled from other States and countries, as follows:

Dakota Territory, 7; Florida, 1; Indiana, 1; Illinois, 2; Iowa, 7; Kansas, 1; Massachusetts, 1; Michigan, 2; Montana Territory, 3; New York, 3; Ohio, 1; Vermont, 1;—twelve States and countries.

### ADMISSIONS.

The system of "local examinations" begun in the summer of 1877, was continued in operation in both of the years covered by this report, 1880-81 and 1881-82. A larger proportion than usual of the examinees took advantage of the regulation permitting them to divide the entrance examination, and were accordingly examined on the more elementary subjects only. In consequence, a much smaller proportion of the whole number of examinees were admitted to the University.

#### RECORD FOR 1880-81.

There were examined at St. Cloud, 6; at Owatonna, 8; at Walle, 3; at Mankato, 7; at St. Peter, 5; at Garden City, 7; at Austin, 4; at Spring Valley, 11; at Rochester, 12; at Winona, 3; at Lake City, 10; at the University in June, 22; in September, 38; and at different times in the course of the first and second terms, 12; total, 118. Of this number 72 took the examinations in the common branches only. Of the remainder, fifty-seven (57) obtained admission, few if any, however, without conditions, as follows:

	Gentlemen.	Ladies.	Total.
To the Classical Course .....	8	4	12
To the Scientific Course .....	24	4	28
To the Modern Course .....	1	8	9
To Selected Studies .....	4	4	8
	<u>37</u>	<u>20</u>	<u>57</u>

Of the 49 entering for regular courses, eight (8), four ladies and four gentlemen, obtained an enrollment in the Freshman class before the close of the year.

#### RECORD FOR 1881-82.

There were examined in the summer of 1881, at Farmington, 9; at Glencoe, 2; at Stillwater, 7; at Duluth, 1; at Faribault, 6; at Waseca, 9; at Le Sueur, 2; at Spring Valley, 2; at Laueoka, 2; at Austin, 8; Rochester, 10; at Lake City, 2; at St. Peter, 3; at

Redwing, 3; at St. Cloud, 1; at Sauk Center, 4; at Litchfield, 2; at Brainard, 3; at the University in June, 25; in September, 38; in the course of the year 16 more. Total, 155. Of this number seventy-four were but partially examined. Of the remaining 81, fifty-three (53) obtained admission, as follows:

	Gentlemen.	Ladies.	Total.
To the Classical Course.....	11	2	13
To the Scientific Course.....	11	4	15
To the Modern Course.....	2	11	13
To Selected Studies.....	9	3	12
	33	20	53

Six gentlemen of mature age were admitted to pursue selected studies without examination. Eleven young gentlemen were admitted to the special courses in shop work and drawing in the engineering department without examinations. The whole number of students admitted was accordingly seventy (70). Four obtained Freshman rank before the close of the year.

On looking over the foregoing record of the admissions for the two years covered by this report, I feel constrained to remark that the expectation of the Board of Regents, when cutting off the second preparatory class (then called the FOURTH CLASS of the Collegiate Department), that the public high schools would send us a large number of candidates well-prepared for admission, has not been met. It must, however, be remembered that their action was founded in some degree upon the the old law for the Encouragement of Higher Education, enacted in 1878, which became inoperative after one year because the appropriation was not continuous as the original bill contemplated. Had this law remained in continuous operation, however, there is no reason to believe that it would have greatly affected the present results. The people have yet to learn that the road to the University leads through the public high schools of the State. It will take some time for this principle to become thoroughly understood as it is understood in Michigan and perhaps other States. Meantime, I suggest it as a very important matter for your consideration, whether some provisional arrangement ought not to be made by which the University may be able to care for that large number of applicants whom it would be unjust to reject, but who have not been able to make a systematic and balanced preparation.

Your attention is respectfully called to a certain important change in regard to admission to the Collegiate Department of the University.

Soon after the organization of the High School Board, under the law of March 3, 1881, the regents of the University passed a resolution directing the General Faculty to accept all examination certificates granted by the High School Board, to applicants for admission presenting the same, and to excuse the individuals from further examination in the respective subjects.



The report of the High School Board will no doubt contain a description of the examination system adopted by them. The feature to be noticed here is, that under it, pupils are enabled to pass the examinations and obtain credits step by step, as they study and complete the several branches in school, and are not obliged, as heretofore, to pass a dozen examinations in a mass at the time of applying for admission. The University still secures all that is desirable—assurance that the applicants have been well instructed and disciplined in the preparatory studies.

In the course of the past year the High School Board decided to extend the privileges of their examination system to high schools other than those working under their supervision by virtue of receiving State aid. It is expected that many school boards and superintendents will desire to give their advanced pupils the benefit of the arrangement. The certificates granted by the High School Board to the pupils of such schools will also be honored at the University.

The Board of Regents, at the time of taking the above action on High School Board certificates, rescinded their regulation authorizing the admission of applicants to the Freshman class on the certificates of superintendents and principals.

There is now but one simple way into the University—that by examination; either (1) on all the preparatory branches in a lump, at the time of application by the Faculty at the University; or (2) on the several branches one by one, as taken up and completed in school, by the high school board. It is hoped that the operation of this system will, in the course of a few years, supply the University with a large and increasing number of well-prepared applicants. The weak points in American higher education is in the secondary or preparatory stage. It is no small credit to our State to be the first of the Western States, at least, to organize the secondary education, however inadequately, and it needs no prophet to foresee immense advantages to individuals of communities and the whole State flowing therefrom.

## GRADUATIONS.

At the ninth annual Commencement, held June 2, 1881, the following 27 degrees were conferred:

1881.

## COLLEGE OF SCIENCE, LITERATURE AND THE ARTS.

*Master of Arts.*

WILLIS MASON WEST (B. A. 1879.)

*Bachelors of Arts.*

George Briggs Aiton .....	St. Peter.
Samuel Gilmore Anderson.....	Eden Prairie.
Otway Wilkinson Baldwin.....	Clear Lake.
William Cullen Bryant .....	St. Peter.
Herbert Oscar Chowen.....	Minneapolis.
Emily Louise Hough .....	Philadelphia, Pa.
Charles Edward Kent.....	Toledo, O.
William Leslie King.....	Garden City.
Quintin John Rowley.....	Oakland.
Fred Beal Snyder.....	Minneapolis.

*Bachelors of Science.*

Fred Leslie Bardwell .....	Minneapolis.
Herbert John Broughton.....	Minneapolis.
Dana Burns.....	Minnetonka.
George Sutherland Grimes.....	Minneapolis.
James Jennison .....	Red Wing.
David Albert Locke .....	Minnetonka.
Samuel Allen Locke.....	Minnetonka.
Sarah Ellen Palmer .....	Shell Rock.
William Hines Savidge.....	Cleveland.
Lilla Ruth Williams.....	Brooklyn.

*Bachelors of Literature.*

Harlow Horace Bonniwell.....	Hutchinson.
Margaret Agnes Campbell.....	Nova Scotia.
Lettie May Crafts .....	Minneapolis.
Emma Elizabeth Grimes.....	Minneapolis.
William Edmund Harrington .....	Hutchinson.
Emma Ernestine Maes.....	Minneapolis.
Bradley Phillips, Jr .....	Hudson, Wis.

The graduations, 33 in number, at the tenth annual Commencement, held June 1, 1882, were as follows:

1882.

*Master of Science.*

ROBERT HENRY CRAFTS, (B. S. 1877.)

*Bachelors of Arts.*

James Bennett Gould.....	Eden Prairie.
Frank Healy.....	Preston
Andrew Franklin Hillyer.....	Minneapolis.
Carrie Warner Holt.....	Chatfield.
Lydia Rossiter Holt.....	Chatfield.
Frances Ada Knox.....	Garden City.
Frank Nichols Leavens.....	Faribault.
Alexander Hamilton Nunn.....	Claremont.
Eli Milton Skiff Pickett.....	Albert Lea.
Charles Myron Webster.....	Red Wing.
Jesse Craig Wilson.....	Dundas.

*Bachelors of Science.*

George Joseph Backus.....	Red Wing.
William Wyckoff Clark.....	Mankato.
Alice Elizabeth Demmon.....	Minneapolis.
Carrie Delania Fletcher.....	Mankato.
Emma Laura Hendrickson.....	St. Paul.
William Beans Linton.....	Cook's Valley.
Henry Francis Nachtrieb.....	Newport.
Rasselas Hamlin Prosser.....	Spring Valley.
Herbert Paine Shumway.....	Alexandria.
Edward Duffield Neill Whitney.....	Minneapolis.

*Bachelors of Literature.*

Agnes Virginia Bonniwell.....	Hutchinson.
Grace Webster Curtis.....	Decorah, Ia.
Arthur Edwin Dickerman.....	Decorah, Ia.
Marie Louise Henry.....	Minneapolis.
Mary Eliza Holt.....	Chatfield.
Mary Nancy Hughes.....	Minneapolis.
Richard Hartwell Johnson.....	St. Charles.
Louie Lillian Kilbourn.....	Minneapolis.
Emily Dana McMillan.....	Minneapolis.
Addie Eva Pillsbury.....	Minneapolis.
Harry Amy Strong.....	Decorah, Ia.

## COLLEGE OF AGRICULTURE.

*Bachelor of Agriculture.*

William Johnson Barrett ..... Wasioja.

THE FOLLOWING TABLE SHOWS THE NUMBER AND KIND OF DEGREES  
WHICH HAVE BEEN CONFERRED BY THE UNIVERSITY:

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	Tot.
Bachelor of Arts.....	2	1	3	4	9	5	8	4	10	11	57
Bachelor of Science.....		1	2	5	3	8	10	9	10	10	58
Bachelor of Literature..			1		3	2	6	4	7	11	34
Bachelor of Civil Eng'g.			3	3			2				8
Bachelor of Mech. Eng'g						1					1
Bachelor of Architecture					1						1
Bachelor of Agriculture.										1	1
Master of Arts.....								1	1		2
Master of Science .....										1	1
Total .....	2	2	9	12	16	16	26	18	28	34	163

The whole number of persons graduated is one hundred fifty-three (153), six persons having received two degrees, those in science and engineering, and three having been awarded master's degrees after passing the required examinations. No honorary degrees are conferred by this University.

The whole number of women who have been graduated is forty-three (43), viz: Bachelors of Arts, 6; of Science, 15; of Literature, 22; all of whom have completed the same courses of study as the gentlemen alumni, and undergone the same tests and examinations. So far as observed the young women have preserved their health as well as the young men. The records of the registrar's office will show that they have not been inferior in any kind of studies. Their degrees therefore are of precisely the same value as those received by the young men.

## COURSES OF STUDY.

No changes have taken place since the last report, except in the transposition of a few studies from term to term. It is believed that no important changes will be called for for some years; and this is accounted a considerable advantage and a proof that the institution has passed out of the period of infancy. Changes in the course of study, often inevitable and in the end advantageous, always embarrass the students of the time. No reference is intended to the addition of new work in new departments.

## EQUIPMENT.

No material changes have taken place since the last report. The library, the chemical and other laboratories, and the general museum, have but moderately increased.

The plant house, under the skillful management of Mr. James Bowen, an expert of many years experience in home and foreign establishments, has become a very attractive feature, and to a certain degree self-supporting. An addition has been made to the house, nearly doubling its capacity. It is hoped that in the course of the present year a special course of instruction in greenhouse management may be offered.

The old experimental farm which had been previously cut in two by University Avenue, was two years ago cross divided by a branch of the Chicago, Milwaukee & St. Paul Railroad. The soil and exposure of considerable proportions of this farm had already proved themselves inferior for the general purposes of an experimental station. On these accounts the Board of Regents obtained authority from the last Legislature to sell this farm and buy a new one. In the course of the past year the fine tract of 155 acres known as the Bass farm, lying at the intersection of Como and Snelling Avenues, about two miles in a direct line from the University buildings, was bargained for. It is not probable that a better selection could have been made. The old farm having been surveyed and platted off into quarter-acre lots, was lately put up for sale at auction. The greater part was sold at rates which indicate that after paying for the new farm enough money will remain to erect the buildings and make the greater part of the improvements necessary to such an establishment.

The fruit farm at Minnetonka still remains in charge of Mr. Peter M. Gideon, to whom the State is under so great obligations for his contributions to its pomology.

The geological survey has been steadily carried forward by Professor Winchell and his assistants. The final report is largely completed and ready for publication. The Legislature will be petitioned to make provision for printing this valuable matter.

## CONCLUSION.

I think it only justice to report the University to you as in a flourishing condition. The Faculty, although fewer in number than the demands of the present time require, are a body of earnest workers, devoting themselves exclusively to their professional duties. They are in harmony among themselves, and they have the respect and confidence of the students. The Board of Regents, at the meeting of June 29, 1882, believing that the time had arrived for such action, decided to discontinue the custom of annually electing the members of the Faculty, and to elect for an indefinite term, reserving the right to dismiss an officer at any time, should the interest of the institution, in their judgment, so require. It is believed that such a tenure of office is necessary to secure the full efficiency of persons charged with such duties as college officers have to discharge. And such being the time-honored custom of the American colleges, it renders it easier to secure and to retain in service the best men. The professors here have now the same status as those of other Universities; security of position, conditioned on high moral character, through scholarship, approved skill and efficiency.

While, however, the condition of the University is claimed to be flourishing, it needs to be said that it does not stand to-day where the Regents have hoped to see it. The legislature of 1881, in response to the appeals to the Board, and according to the recommendations of the committees which visited and inspected the institutions, made a generous appropriation for the erection and outfit of additional buildings. Had the Board been enabled to carry out their plans, several departments of instruction, in particular those pertaining to the practical arts, would have been developed on a liberal scale. Two years have passed, and the accounting officers of the State have steadily declined to honor warrants of the Board against this appropriation. The prior claims and needs of other institutions, and the immediate necessity of rebuilding the State capitol are, the Board are assured, the reasons why they must postpone the execution of their plans. Under such circumstances the Board can only submit to the delay, but they will not attempt to conceal their regret. In the mean time, the most has been made of such accommodations and appliances as exist.

All of which is respectfully submitted.