UNITED STATES DISTRICT COURT

for the

Southern District of Iowa

United States of America	
· . v.) CO Case # 17-mj-1201-MJW
) Case No. 3:17-m]-131.
TREVOR GRAVES	}
	· · · · · · · · · · · · · · · · · · ·
Defendant	
Al	RREST WARRANT
To: Any authorized law enforcement officer	
YOU ARE COMMANDED to arrest and I	oring before a United States magistrate judge without unnecessary delay
(name of person to be arrested) TREVOR GRAVES	ring betole a diffied States magistrate judge without unnecessary delay
who is accused of an offense or violation based on the	he following dogwood filed with the same
	as tollowing document filed with the courc
☐ Indictment ☐ Superseding Indictment	☐ Information ☐ Superseding Information ☐ Complaint
☐ Probation Violation Petition ☐ Supervised	Release Violation Petition
This offense is briefly described as follows:	6
On or about March 25, 2015 and continuing until on or about No	ovember 28, 2016, in the Southern District of Iowa, the defendant, TREVOR GRAVES, did
Code, § 1030(a)(2) and (c)(2)(A).	telned information from a protected computer. This is a violation of Title 18, United States
Code, § 1030(a)(2) and (c)(2)(A). On or about March 25, 2015 and continuing until on or about No knowingly cause the transmission of a program, information, consultation to a protected computer and the offense caused to	trained information from a protected computer. This is a violation of Title 18, United States overhear 28, 2016, in the Southern District of Inwa, the defendant, TREVOR GRAVES, did de, and command, and as a result of such conduct, Intentionally cause damage without less during a one year period of at least \$6,000. This is a violation of Title 18, United
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AO 91 (Rev. 11/11) Criminal Complaint

Unit	ED STATES D	ISTRICT COURT	
	for th	ie	RECEIVE
	Southern Distri	ct of Iowa	
United States of America	3		OCT 2 0 2017
v.))	CO Case # 17-mj-012 Case No. 3:17-mj-131	201-MLERK OF DISTRICT COURT SOUTHERN DISTRICT OF IOW
TREVOR GRAVES) .)		
Defendant(s)			
	CRIMINAL CO	OMPLAINT	
I, the complainant in this case,	state that the following	is true to the best of my know	vledge and belief.
On or about the date(s) of March 25, 2		in the county of	48 - 36 - 30 - 30 - 30 - 30 - 30 - 30 - 30
Southern District of	lowa , the d	efendant(s) violated:	
Code Section		Offense Description	
18 U.S.C. § 1030(a)(2), (c)(2)(A)	District of Iowa, the defenda	and continuing until on or about Nove nt, TREVOR GRAVES, did intentional ormation from a protected computer.	ly exceeded authorized access to
18 U.S.C. § 1030(a)(5)(A), (c)(4)(B)	District of Iowa, the defenda program, information, code, damage without authorization	and continuing until on or about Nove nt, TREVOR GRAVES, did knowingly and command, and as a result of suc on to a protected computer and the off 0. This is a violation of Title 18, Unite	cause the transmission of a n conduct, intentionally cause ense caused loss during a one
This criminal complaint is base	ed on these facts:		
See attached.			
✓ Continued on the attached s			
Continued on the attached s	neet.	Complain	S Helmann's signature
☐ Sworn to before me and sign	ned in my presence.		er, FBI Special Agent
Sworn to before me by telep reliable electronic means.			20 (1997)
Date: 10/20/2017		XOLO	Strange

Davenport, Iowa

City and state:

John A. Jarvey, Chief U.S. District Judge

Printed name and title

Judge's signature

AFFIDAVIT IN SUPPORT OF CRIMINAL COMPLAINT

I, JEFFREY S. HUBER, Special Agent, Federal Bureau of Investigation, being first duly sworn, hereby depose and state:

- 1. I am a Special Agent of the Federal Bureau of Investigation (FBI) currently assigned to the FBI Omaha Division, Quad Cities Resident Agency. This affidavit is based upon my involvement in the investigation of Trevor Graves and information obtained from other police officers and witnesses. This affidavit is made in support of a criminal complaint charging Graves with offenses under 18 U.S.C. § 1030(a)(2)(C) (intentionally accessing a computer without authorization and exceeding authorized access, and thereby obtaining information from a protected computer); and 18 U.S.C. § 1030(a)(5)(A) (knowingly causing the transmission of a program, information code, and command, and as a result of such conduct, intentionally causing damage without authorization to a protected computer).
- 2. I have set forth only the facts that I believe are necessary to establish probable cause to conclude that Trevor Graves has committed violations of 18 U.S.C. § 1030(a)(2)(C) and 18 U.S.C. § 1030(a)(5)(A) and that these offenses occurred within the Southern District of Iowa. The charges are based upon events summarized below.
- 3. Under 18 U.S.C. § 1030(e)(2)(B) the term "protected computer" means a computer which is used in or affecting interstate commerce or communication. A computer connected to the Internet is a "protected computer," under 18 U.S.C. § 1030(a) because it is used in or affecting interstate commerce or communication. *United States v. Trotter*, 478 F.3d 918, 920-21 (8th Cir. 2007).
- 4. Under 18 U.S.C. § 1030(e)(6) the term "exceeds authorized access" means to access a computer with authorization and to use such access to obtain or alter information in the computer that the accesser is not entitled so to obtain or alter.
- 5. Under 18 U.S.C. § 1030(e)(8) the term "damage" means any impairment to the integrity or availability of data, a program, a system, or information.
- 6. Under 18 U.S.C. § 1030(e)(11) the term "loss" means any reasonable cost to any victim, including the cost of responding to an offense, conducting a damage assessment, and restoring data, program, system, or information to its condition prior to the offense, and any

revenue lost, cost incurred, or other consequential damage incurred because of interruption of services.

Background of the University of Iowa Systems

- 7. All University of Iowa students, faculty, and staff have a HawkID, which is created during the admissions process or is assigned upon joining the University of Iowa. A person's HawkID and password is used to log in to Iowa Courses Online (ICON), the University of Iowa's enterprise-wide learning management system (LMS), which is primarily powered by Canvas (a cloud based, open-source LMS). For purposes of this affidavit, ICON and Canvas refer to the same system and is accessed through the internet.
- 8. MAUI (Made At the University of Iowa) is the registrar/student information system at the University of Iowa that manages admissions, student records, advising, billing, financial aid, orientation, relationship management and academic support. Data is synched from MAUI to ICON several times per day.
- 9. Privileges/rights in ICON are based on a user's role in MAUI. Instructor, TA, and student are all examples of roles in MAUI. Broadly speaking, instructors have "create/edit/delete" rights for all course tools (including grading), while students for the most part have "read only" rights for most course tools, the exception being tools that are designed for interaction (discussions, group spaces, etc.).
- 10. As previously stated, students do not have "create/edit/delete" rights in ICON. In order for a student's grade to be entered or updated in ICON, the person must log in to ICON as an instructor. Once logged in, the person can navigate to a course and click on Grades in the Course Navigation area. Next, a person would find the student's name in the gradebook and click on a cell in the gradebook in the same row as the student's name. At this point, the person would enter a point value for the student and click outside that cell or press enter to save the change.
- 11. The University of Iowa utilizes Office 365 as the primary campus email and calendaring service for faculty, staff, and students. The service can be used by accessing it from a system loaded with email client software, such as Microsoft Outlook, or by using the Office

365 web interface for the University of Iowa. The same credentials used to access ICON as a professor could also be used to access the professor's email.

Factual Basis of Investigation

- 12. On or about January 20, 2017, your affiant read an online media report stating the University of Iowa notified approximately 250 faculty, staff, and students that their university IDs and passwords had been obtained by "unauthorized individuals" using physical devices secretly attached to university computers. The report further stated that the individuals used a few of the captured accounts to access classroom computers, email, and ICON.
- 13. On or about January 25, 2017, your affiant met with University of Iowa Chief Information Security Officer (CISO) Jane Drews, University of Iowa Department of Public Safety Associate Director William Searls, and University of Iowa Department of Public Safety Detective Corey Gibney, and was provided the following information:
 - a. On or about mid-December 2016, a University of Iowa Professor discovered an irregularity in that one of his/her student's assignments and quiz scores had been changed in ICON without her knowledge and/or authorization. The University of Iowa Professor identified the student as Trevor Graves. Subsequent to the discovery, the professor notified University of Iowa Information Services Technology (ITS) and an internal investigation ensued, which eventually led to the opening of a criminal investigation by the University of Iowa Police.
 - b. The University of Iowa ITS maintains system logs for ICON, which provides the dates and times of when faculty members sign into their ICON accounts. The logs also track when a student record is changed and provides information such as what internet protocol (IP) address¹ is used to log into the system.
 - c. On or about December 21, 2016, University of Iowa ITS notified University of Iowa Police that a forensic review of these logs determined that suspected grade changes occurred in at least four general assignment classrooms on the University Of Iowa campus, in the Seamans Center and MacLean Hall, and used the HawkID's and passwords of at least six instructors.

¹ An Internet Protocol address is a numerical label assigned to each device connected to a computer network that uses the Internet Protocol for communication.

- d. On or about December 21, 2016, University of Iowa ITS further notified University of Iowa Police that the suspected grades changes for Graves occurred on the dates of October 4, 2016 (six grade changes); November 7, 2016 (one grade change); November 15, 2016 (five grade changes); and November 28, 2016 (eleven grade changes).
- e. In addition to Graves, University of Iowa ITS identified another student, hereinafter referred to A.B., as being someone who was suspected of having at least three grades changed on November 15, 2016, at approximately the same time as Graves.
- f. On or about December 21, 2016, University of Iowa ITS communicated to the University of Iowa Police that their internal logs indicated that electronic devices associated with Graves and A.B. were in proximity on University of Iowa wireless, or on an adjacent lab computer during the grade change events of October 4, 2016; November 7, 2016; November 15, 2016; and November 28, 2016.
- g. University of Iowa ITS conveyed to University of Iowa Police they had a strong suspicion that a keystroke logging device2 (otherwise known as a keylogger) was inserted into one or more computers to record HawkID/passwords of instructors logging in.
- 14. Based, in part, on the information provided by University of Iowa ITS, University of Iowa Police Detective Corey Gibney, applied for and received authority by the State of Iowa District Court for a search warrant at Graves's residence in Iowa City, Iowa (IA). On December 29, 2016, Detective Gibney and University of Iowa Police executed the search warrant at Graves's residence. During the execution of the search warrant (Graves was not present), University of Iowa Police seized several items, including, but not limited to, thumb drives, four cellular telephones, and two keyloggers.
- 15. University of Iowa Police Detective Gibney tasked University of Iowa ITS with forensically imaging the cellular telephones seized from Graves. The results from this imaging were provided to and reviewed by Detective Gibney. Detective Gibney discovered text messages between Graves and A.B., consistent with a discussion about Graves changing grades. In addition, Detective Gibney reviewed text messages between Graves and other students,

² A keystroke logging device or keylogger is a hardware device that records all keystrokes on a computer keyboard and can be used to steal user id's, passwords, or other confidential information.

including, but not limited to, students hereinafter referred to as A.T., B.S. and Z.B., also consistent with a discussion about grade changing. The following are examples of some of the text messages between Graves and the other students that were reviewed by Detective Gibney and your affiant:

> a. On September 9, 2015, SMS text message communications were exchanged between Graves and student A.B., a portion of their communication is as follows:

Graves:

You go get pineapple getter too?

A.B.:

Oh [bleep] I forgot about that. I come pick you up and we go

after I get done with dinner?

Graves:

So yeah like when?

A.B.: Little after 6? . Graves:

Ok idokee

b. On September 10, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

A.B.: Should we go try to get the pineappler

Graves:

Yes

c. On September 11, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

Graves:

We do homework tonight and leave late tonight?

A.B.: Possibly. Did pineapple work?

Graves:

I find out after Vector Calc...OK sound good

A.B.: Ok sound good

Graves:

If it works we leave early ish today?

Graves:

Yes it work

A.B.: Is pineapple on there??

No but changing pineapple is available

Graves:

A.B.: Okie doke. I pretty sure I can get test back

Graves:

Sweet

d. On September 21, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

A.B.: Very true. I got two test this week I gotta focus on first though.

We gotta go hunting.

Graves:

Hunting? I've never been

A.B.: Yes you have

Graves:

Not for real, shooting things out my truck windows doesn't count.

A.B.: Pineapple hunting

Graves: Ah pineapple hunter is currently laying in wait in a classroom

already

A.B.: We go hunting when you get it back?

Graves: Yup
A.B.: Ok sounds good

e. On September 22, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

A.B.: Oh okay. I was gonna ask if you wanted to do hills but I study

now and go lift later

Graves: Oh so no pineapple

A.B.: I'll be in building I need to pinapple all night

Graves: Sweet

Graves: I will be at the seamans center or library

A.B.: ok we go hunting later

A.B.: Room we need to pineapple is just downstairs from me too

Graves: I gotta go get it soon

Graves: I have extractor, you ready?

A.B.: Yes ma'am. If the room is still open

f. On October 1, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

A.B.: We should pineapple soon

Graves: wet should for sure

A.B.: You got new one?

Graves: I did A.B.: It works?

Graves: Yup

A.B.: Good. When should we go Graves: New week sometime

g. On October 16, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication is as follows:

Graves: I know how to change pineapples

A.B.: Lol I know

Based on my training and experience, and based upon the interview of student A.B., your affiant believes the term "pineapple" was used as a code word for the keylogging device.

h. On November 7, 2015, SMS text message communications were exchanged between Graves and student A.T., a portion of their communication was as follows:

Graves: How do them fluids grades look?

A.T.: I don't think mine changed A.T.: Does it update icon right away?

Graves: Yeah

A.T.: What did you change? Graves: Test grade

A.T.: Okay, maybe I got worse than I thought haha, Thank you!!

Graves: 77.5?

A.T.: That's what it says on icon

A.T.: Maybe I had 72% something...I don't really know, but seriously

thank you

Graves: Good, yeah you had 72.5

A.T.: Sweetness thank you

Graves: Np

i. On November 8, 2015, SMS text message communications were exchanged between Graves and student A.T., a portion of their communication was as follows:

A.T.: So if you are "in" fluids, can you get the exam coming up?

Graves:

I don't have access, only altering of numbers after

A.T.: Oh gotcha, don't really know what that means but okay haha

j. On November 10, 2015, SMS text message communications are exchanged between Graves and student A.B., a portion of their communication was as follows:

A.B.: We go pineapple hunting soon? Graves: I got all my pineapples

A.B.: We gotta get one more for me

k. On November 13, 2015, SMS text message communications were exchanged between Graves and student A.B., a portion of their communication was as follows:

Graves: We need to go make sure we can retrieve the Pineapple

A.B.: Now?

Graves: Before the building locks for tint

Graves: Tonight

A.B.: Did you leave the penny in the door?

Graves: I didn't move them, but they could have fallen out

A.B.: OK well I'm guessing it'll probably close by 5

Graves: Yeah I'd say so too A.B.: Ok I on my way to get you

1. On November 15, 2015, SMS text message communications were exchanged between Graves and student A.B., a portion of their communication was as follows:

A.B.: Change lab report 1 in biomaterials and biomechanics class back

to...80.

m. On November 15, 2015, SMS text message communications were exchanged between Graves and student Z.B., a portion of their communication was as follows:

Z.B.:

Did you tell Brandon about the "hand of god" on that test

Graves:

No

Graves:

The less people know the better

Z.B.: Yea I completely agree

Graves:

Just don't want him getting comfy with his knowledge and not

thinking he needs to study as much

Graves:

Tell him to study more

n. On November 15, 2015, SMS text message communications were exchanged between Graves and student A.T., a portion of their communication was as follows:

A.T.:

So fluids is a class that you can change stuff right? I'm just going

to get started studying now....So [bleeped]

Graves:

Yeah but you still need to do good

A.T.: Im going to try, I don't the change that you make to be drastic

Graves:

Exactly

A.T.: Did you boost me quizzes in prob n stats?

Graves:

I don't think so I forgot maybe

A.T.: I think you did, not sure, but thanks!!

o. On December 5, 2015, SMS text message communications were exchanged between Graves and Student A.B., a portion of their communication was as follows:

Graves:

I don't think your biochem teacher logs in

A.B:

:/she must though because they have to log in to show the slides

Graves:

The computer is always logged in and I saw biochem slide power

points on the desktop

A.B.: well looks like I'm [bleep] out of luck

Graves: Little bit :(

A.B.: Feel like breaking into office?

Graves: Not really, that takes a lot more preparation A.B.: I can go to class and try to get her to log into icon

Graves: or we could use the time to study?

A.B.: I need 100 on final just to get B- at this point :/

p. On December 8, 2015, SMS text message communications were exchanged between Graves and student A.T., a portion of their communication was as follows:

Graves: You're micro class is in w10 right?

A.T.: Yes

Graves: That's the big one in the basement right?

A.T.: Yeah

Graves: I will see what can be done tonight

A.T.: Sweet thanks!

Graves: Where you at?

A.T. I'm at home what's up?

Graves: You going to micro tomorrow?

A.T.: Yes sir

Graves: Can you get there before the teacher and watch to see that he logs

in

A.T.: I can leave prob and stats early and do that, do I just need to see

him log in?

Graves: Yup, to confirm that we acquired the info

A.T.: Okay, so just text you when he logs in or what?

Graves: Yup A.T.: Okay will do

q. On December 9, 2015, SMS text message communication were exchanged between Graves and student A.T., a portion of their communication was as follows:

A.T.: He was [bleeping] around on the computer when I got here

Graves: Sweey

r. On March 10, 2016, SMS text message communications were exchanged between Graves and student B.S., a portion of their communication was as follows:

Graves: That means when you get a 74 you don't brag about it cause

people just enter grades wrong a lot

s. On March 11, 2016, SMS text message communications were exchanged between Graves and student A.T., a portion of their communication was as follows:

A.T.: Have you found any red bull today?

Graves: Where are you I have the red bull

A.T.: In class now, I will be at the sc in 30min

A.T.

You are the [bleeping] MAN!!

Graves:

I'll be in elder lab

A.T.: Okay

Based on my training and experience, and based upon interviewing student A.T., your affiant believes the term "red bull" was used as a code word for exam.

- 16. On February 16, 2017, your affiant and Detective Gibney conducted a non-custodial interview of student A.B., who advised the spring of 2015 was the first time Graves told him/her he could change his/her grades or get tests for him/her. While Graves did not tell A.B. exactly how he could accomplish this, Graves did tell A.B. he needed professors to log into ICON. During the non-custodial interview, A.B. advised Graves changed homework assignments, quizzes, and exams for A.B. in various classes, including, but not limited to Dynamics, Differential Equations, Diversity of Form and Function, Biomaterials and Biomechanics, Organic Chemistry and Cardiovascular Fluid Mechanics. During the interview, A.B. also advised that on approximately five (5) occasions, A.B. accompanied Graves to the Seamans Center for the purpose of Graves placing a device in a classroom. A.B. told your affiant and Detective Gibney that in the spring of 2015, Graves obtained an advance copy of the questions to the Circuits exam and provided him/her with those questions.
- 17. Based upon information provided by the University of Iowa ITS, A.B. had several homework assignments, quizzes and exams changed in ICON. These changes were made by someone logging into ICON using a professor's user name and password. For example, on May 7, 2015, Professor QXXXn's user name and password logged into ICON from the General Assignment Computer (GAC) in room 1505 of the Seamans Center Building. Upon logging in, A.B.'s Exam 3 grade in Organic Chemistry was changed from 37/100 to 80/100. The following is a table of some of the grade changes made to the benefit of A.B.:

Date	Location	Login ID	Student ID	Grade	Course
				Changed	
05/07/2015	SC-1505	dXXu	aXXXXXt	Exam 3: 37>80/100	Organic Chemistry
11/14/2015	SC-1505	dXXu	aXXXXXt	Exam 2: 43>83/100	Systems, Instrum. & DA
05/14/2016	SC 2001	sXXXXXa	aXXXXXt	Final Exam: 112>172/200	Dynamics
11/15/2016	SC-2229	kXXXXXi	aXXXXXt	Exam 2: 29>84/100	Thermodynamics

- 18. On March 6, 2017, your affiant and Detective Gibney conducted an interview of student A.T. under the terms of a standard proffer agreement, whereby the government made no promises or assurances as to A.T. receiving any benefit by cooperating. The proffer agreement also required A.T. to be completely truthful and not misstate or omit material facts. During the interview, A.T. advised he/she met Graves during their sophomore year when they were working on a class project in Design for Manufacturing class. At first, Graves gave A.T. subtle indications he knew what was going to be on exams. As an example, Graves would flip through the course textbook and point out a particular problem and tell A.T. to study that problem. The problems Graves would point out to A.T. would end up being on the exams. Graves then gave A.T. an advance copy of the final exam for Mechanics of Deformable Bodies. A.T. remembered one particular time where Graves put a flash drive in his/her computer and gave him an advance copy of the exam for Material Science. Graves told A.T. that he puts a device on computers which allows him to get all of the information the professor's type. A.T. recalled Graves referring to the device as a "keygrabber."
- 19. On March 6, 2017, A.T. told your affiant and Detective Gibney that Graves gave him/her approximately ten (10) advance copies of exams. A.T. advised these exams were not available to other students as no one was allowed to have them ahead of time. A.T. remembered receiving advance copies of exams for Mechanical Systems, Mechanical Systems Design, Energy Systems Design, Thermodynamics and Heat Transfer.
- 20. On March 6, 2017, A.T. told your affiant and Detective Gibney that he/she was with Graves on approximately five (5) occasions when a keylogger was either placed

on/removed from a computer. A.T. advised he/she was with Graves on one occasion when Graves unsuccessfully attempted to pick the lock on a professor's office door in order to gain access to the professor's computer.

- 21. On March 6, 2017, A.T. told your affiant and Detective Gibney that in addition to receiving advance copies of exams from Graves, he/she was also aware Graves logged into several professors' ICON accounts and changed his/her exam scores in several classes. A.T. advised Graves changed A.T.'s exam scores in both Microeconomics and Managerial Accounting. A.T. advised he/she was with Graves when he logged into ICON, without authorization, and changed A.T.'s grade for Managerial Accounting. A.T. confirmed this was in the spring of 2016 and the grade change pertained to his Midterm 1 exam.
- 22. On March 6, 2017, A.T. told your affiant and Detective Gibney that a student, hereinafter referred to as M.W., was one of Graves's roommates. A.T. advised M.W. received advance copies of exams from Graves prior to them being administered. A.T. advised that Graves, M.W. and A.T. were all together on separate occasions in 2016 when Graves obtained the Design for Manufacturing exam and the Energy Systems Design exam.
- 23. Based upon information provided by University of Iowa ITS, A.T. had several homework assignments, quizzes, and exams changed in ICON. These changes were made by someone logging into ICON using a professor's user name and password. For example, on April 18, 2016, Professor DXXXXXXk's user name and password logged into ICON from the General Assignment Computer (GAC) in room 3505 of the Seamans Center Building. Upon logging in, A.T.'s Midterm 1 Exam grade in Managerial Accounting was changed from 144/100 to 160/100. The following is a table of some of the grade changes made to the benefit of A.T.:

Date	Location	Login ID	Student ID	Grade Changed	Course
11/15/2015	SC-1505	fXXXXXn	aXXXXXr	Exam 1: 26>31/40	Fluid Mechanics
12/15/2015	SC-3315	rXXXXn	aXXXXXr	Midterm: 40>50/90	Engineering Instrumentation
04/18/2016	SC 3505	iXXXXXk	aXXXXXr	Midterm 1 : 144>160/200	Managerial Accounting
04/18/2016	SC3505	aXXXXXr	aXXXXXr	Midterm: 76>86/100	Thermodynamics II

- 24. On March 28, 2017, your affiant and Detective Gibney conducted a non-custodial interview of student B.S., who advised he/she met Graves during their freshman year when they both lived in Rienow Hall dormitory. B.S. advised he/she first became aware of Graves's ability to get exam questions during the semester he/she was taking Probability and Statistics class (fall of 2015). Although B.S. knew Graves could obtain questions to exams, he/she claimed that he/she did not know how, was never told how and was never present when Graves did it.
- 25. On March 28, 2017, B.S. told your affiant and Detective Gibney that he/she learned of Graves's ability to change exam scores during the semester of Mechanical Systems class, which was the spring of 2016. B.S. knew the grade he/she received in Mechanical Systems class was bad (referring to the 37 out of 100). B.S. also advised he/she knew Graves was going to change his/her grade to a 74 out of 100 prior to it happening. B.S. advised although there were no conversations with Graves beforehand, B.S. knew some of his/her grades in Heat Transfer class were changed after-the-fact. B.S. advised he/she did not assist Graves, but did reap the benefits.
- 26. Based upon information provided by the University of Iowa ITS, B.S. had several homework assignments, quizzes, and exams changed in ICON. These changes were made by someone logging into ICON using a professor's user name and password. For example, on March 10, 2016, Professor SXXXXi's user name and password logged into ICON from the Engineering Lab Computer in room SC-2001 of the Seamans Center Building. Upon logging in, B.S.'s Exam 1 grade in Mechanical Systems was changed from 37/100 to 74/100. Then, on May 3, 2016, Professor SXXXXi's user name and password logged into ICON from the GAC Computer in room SC-3026 of the Seamans Center Building. Upon logging in, B.S.'s Exam 1 grade in Mechanical Systems was changed from 74/100 to 84/100 and his/her Exam 2 grade was changed from a 79/100 to 89/100. The following is a table of some of the grade changes made to the benefit of B.S.:

Date	Location	Login ID	Student ID	Grade Changed	Course
11/06/2015	SC-1505	fXXXXXn	bXXXXXr	Exam 1: 20>28/40	Fluid Mechanics
03/10/2016	SC-2001	kXXXXXi	bXXXXXr	Exam 1: 37>74/100	Mechanical Systems
05/03/2016	SC 3026	kXXXXXi	bXXXXXr	Exam 1 : 74>84/100	Mechanical Systems
05/03/2016	SC 3026	kXXXXXi	bXXXXXr	Exam 2: 79>89/100	Mechanical Systems
05/03/2016	On Campus	JXXXXX0	bXXXXXr	Midterm Exam 1: 66>78>87/100	Heat Transfer
05/12/2016	EPB 104	kXXXXXi	bXXXXXr	Exam 1: 84>94/100	Mechanical Systems

- 27. On May 9, 2017, your affiant and Detective Gibney conducted a non-custodial interview of a student Z.B., who advised he/she met Graves during their freshman year when they both lived in Rienow Hall dormitory. Z.B. advised he/she first became aware of Graves's ability to change grades at the end of the spring semester of 2016. Z.B. was also told by Graves that he had passwords to professors' ICON accounts.
- 28. On May 9, 2017, Z.B. advised he/she knew there was a large discrepancy in an exam score pertaining to his/her Engineering Instrumentation class. Z.B. also knew he/she had done poorly on the exam and received a grade of approximately 14 out of 100. At the end of the semester, Z.B. discovered that his/her grade on the exam was much higher than what he/she remembered receiving. Z.B. also told your affiant and Detective Gibney that he/she remembered his/her grade changing in a class with Professor SXXXXi, but could not recall if the class was Mechanical Systems or Mechanical Systems Design. Z.B. claimed to your affiant and Detective Gibney that while he/she knew his/her grade had changed, it was not that significant of a change, therefore, he/she speculated the change was a result of a partial credit change by the professor.
- 29. On May 9, 2017, Z.B. advised there were times when he/she and Graves would be in the Seamans Center late at night and Graves would go into classrooms while Z.B. stood outside. Z.B. denied to your affiant and Detective Gibney of knowing specifically what Graves

was doing, but assumed it was something wrong and had to do with a computer in the classroom. Z.B. specifically remembered this occurring in classroom 1505 of the Seamans Center. Graves was in the classroom for five to ten minutes as Z.B. stood outside. Z.B. denied to your affiant and Detective Gibney that he/she was a lookout for Graves as Z.B. was never specifically asked by Graves to be a lookout.

30. Based upon information provided by the University of Iowa ITS, Z.B. had several homework assignments, quizzes, and exams changed in ICON. These changes were made by someone logging into ICON using a professor's user name and password. For example, on November 6, 2016, Professor SXXXn's user name and password logged into ICON from the General Assignment Computer (GAC) in room 1505 of the Seamans Center Building. Upon logging in, Z.B.'s Exam 1 grade in Fluid Mechanics was changed from 23 out of 40 to 30 out of 40 along with increases in Z.B.'s Quizzes 1, 3, and 6. The following is a table of some of the grade changes made to the benefit of Z.B.:

Date	Location	Login ID	Student ID	Grade Changed	Course
11/06/2015	SC-1505	fXXXXXn	bXXXXXr	Exam 1: 23>30/40	Fluid Mechanics
12/15/2015	SC-3315	fXXXXXn	bXXXXXr	Exam 2: 24.5>34/40	Fluid Mechanics
12/15/2015	SC-3315	fXXXXXn	bXXXXXr	Midterm : 17>47/90	Engineering Instrumentation
05/03/2016	On Campus	JXXXXXX0	bXXXXXr	Midterm Exam 1: 37>77/100	Heat Transfer
05/03/2016	On Campus	JXXXXXXo	bXXXXXr	HW Lecture 12: 0>23/30	Heat Transfer
05/03/2016	On Campus	JXXXXXXo	bXXXXXr	HW Lecture 15: 0>23/30	Heat Transfer
05/12/2016	MLH 213	wXXn	bXXXXXr	Midterm: 55>65/100	Elementary Num. Analysis

- 31. On July 5, 2017, your affiant conducted an interview of student M.W. under the terms of a standard proffer agreement, whereby the government made no promises or assurances as to M.W. receiving any benefit by cooperating. The proffer agreement also required M.W. to be completely truthful and not misstate or omit material facts. During the interview, M.W., who advised he/she met Graves during their freshman year as they both enrolled in the same Rhetoric class and lived in the same dormitory (Rienow Hall). M.W. advised he/she first became aware of Graves having a keylogger during the 2nd semester of their junior year (spring of 2016) when they both were enrolled in Heat Transfer class. M.W. advised that during this time period, Graves and M.W. jogged together and Graves occasionally veered off course and stated he needed to run into the building where they had lecture for Heat Transfer class. On one of these occasions, Graves came out of the building and showed M.W. a device (determined to be a keylogger), and explained this was what he was using to get advance copies of exams.
- 32. On July 5, 2017, M.W. told your affiant that on approximately six to ten occasions, M.W. went with Graves to either place a keylogger on a computer or take the keylogger off a computer. M.W. also advised that student A.T. was with M.W. and Graves on about half of these occasions, corroborating the information received from A.T. during his/her interview.
- 33. On July 5, 2017, M.W. told your affiant that subsequent to learning Graves was responsible for changing his/her exam scores, M.W. told Graves to never change his grades again. M.W. told your affiant he/she assisted Graves with either placing or taking off the keylogger on six to ten occasions because he/she did not want to get cut out from receiving advance copies of exams from Graves. M.W. told your affiant he/she received advance copies of exams from Graves on approximately ten to twelve occasions. M.W. told your affiant he/she accepted the advance copies of exams from Graves because he/she knew Graves was providing the copies to other students and did not want the grading curve to negatively impact his/her scores.
- 34. Based upon information provided by the University of Iowa ITS Department, M.W. had multiple quizzes and exams changed in ICON on December 5, 2015. These changes were made by someone logging into ICON using a professor's user name and password. The following is a table of the grade changes made to the benefit of M.W.:

Date	Location	Login ID	Student ID	Grade Changed	Course
15/0/2015	SC-3315	fXXXXXn	mXXXXXXx	Exam 1: 33.5>35/40	Fluid Mechanics
12/15/2015	SC-3315	fXXXXXn	mXXXXXXx	Exam 2: 33>36/40	Fluid Mechanics
12/15/2015	SC-3315	fXXXXXn	mXXXXXXx	Quiz 1: 5>8/10	Fluid Mechanics
12/15/2015	SC-3315	fXXXXXn	mXXXXXXx	Quiz 3: 4.5>7/10	Fluid Mechanics

35. Based upon information provided by the University of Iowa ITS Department, GRAVES had several homework assignments, quizzes, and exams changed in ICON. These changes were made by someone logging into ICON using a professor's user name and password. The following is a table of some of the grade changes made to the benefit of GRAVES:

Date	Location	Login ID	Student ID	Grade Changed Actual>Changed	Course
03/25/2015	SC-3505	sXXXXXXa	tjgraves	HW 10: 84>94/100	Dynamics
03/31/2015	No logs available	sXXXXXXa	tjgraves	Exam 1: 60>90/100 Exam 2: 66>86/100	Dynamics
04/27/2015	SC-1505	sXXXXXXa	tjgraves	Exam 3: 56>83/100	Dynamics
05/13/2015	SC-3321	kXXx	tjgraves	Final Exam 45>70/90	Electrical Circuits
11/06/2015	SC-1505	fXXXXXn	tjgraves	Exam 1 (A): 26>31/40	Fluid Mechanics
11/10/2015	SC-1505	rXXXXXXn	tjgraves	HW 2: 6.5>9.5/10 HW 3: 3.7>8.5/10 HW 5: 8.4>9/10 Lab 2: 4>5/5 Lab 3: 0>5/5 Report 2: 80>88/100 Logbook 2: 32>85/100	Engineering Instrumentation
11/10/2015	SC-1505	rXXXXXk	tjgraves	HW 1: 63.5>92/100 HW 3: 88>93/100 HW 8: 0>89/100 HW 9: 75>95/100	Probability & Stats for Engineers

12/15/2015	SC-3315	rXXXXXk	tjgraves	HW 10: 81>90/100 HW 12: 79>89/100 SchQuiz 1: 0>16/20 SchQuiz 2: 0>17/20 SchQuiz 3: 11>15/20 SchQuiz 4: 12>17/20 SchQuiz 5: 7>18/20 UnSchQuiz 3: 0>9/10 UnSchQuiz 5: 0>8/12 Exam 1: 61>81/100 Project 1: 0>9/10	Probability & Stats for Engineers
12/15/2015	SC-3315	rXXXXXXn	tjgraves	HW 6: 0>10/10 Report 4: 60>90/100	Engineering Instrumentation
12/16/2015	SC-3321	rXXXXXk	tjgraves	Project 2: 0>88>96/100	Probability & Stats for Engineers
03/30/2016	SC-2001	kXXXXXi	tjgraves	Quiz 1: 0>5/5 Product Liability: 59>89/100	Mechanical Systems
04/17/2016	SC 2001	zXXXXXr	tjgraves	HW 1: 9>10/10 HW 2: 8>10/10 HW 3: 7>10/10 HW 4: 0>10/10 HW 5: 4>8/10 DS3: 1>2/2 Exam1: 19>32/36	Computers Science 1
04/17/2016	SC 2001	gXXXXXXe	tjgraves	lec17: 0>1/1 lec18: 0>1/1 lec02ma: 2>4/4 lec14ma: 7>10/10 lec17ma: 0>10/10 lec18ma: 0>10/10 lec18ma: 5>10/10 HW 1: 64>96/100 HW 2: 92>96/100 Midterm 1 MC: 52>68/76 Midterm 1 written: 19.8>22.08/24 Midterm 2 MC: 54>70/75 Midterm 2 written: 22.6>23.6/25	Computers in Engineering

05/12/2016	MLH 213	gXXXXXXXe	tjgraves	lec34: 0>1/1 lec35: 0>1/1 lec36: 0>1/1 lec36: 0>1/1 lec38: 0>1/1 lec39: 0>1/1 lec40: 0>1/1 lec40: 0>10/10 lec37ma: 0>10>10 lec39ma: 0>10/10 lec40qz: 0>10/10 Midterm 1 MC: 68>74/76 Midterm 2 MC: 70>73/75	Computers in Engineering
05/12/2016	MLH 213	zXXXXXr	tjgraves	Exam2 27>33/36	Computer Science 1
10/04/2016	SC-3317	iXXXXo	tjgraves	Mathematica#1 1>9/10 Mathematica#2 0>10/10 Mathematica#3 0>10/10 Mathematica#4 0>10/10 Quiz#3: 0>8/10 Quiz#4: 0>8/10	Discrete Solutions
11/07/2016	MLH-105	iXXXXo	tjgraves	Exam 1: 61.9%>82.54%	Discrete Solutions
11/15/2016	SC-2229	kXXXXXi	tjgraves	Exam #1 51>71>81/100 Extra Credit 1 0>5/5 Extra Credit 2 0>5/5 Extra Credit 3 0>5/5	Mechanical Systems Design
11/28/2016	SC-2217	iXXXXo	tjgraves	Mathematica#5 0>10/10 Mathematica#6 0>10/10 Mathematica#7 0>10/10 Written HW #5 0>10/10 Written HW #6 0>10/10 Written HW #7 0>10/10 Quiz#5: 0>8/10 Quiz#6: 0>8/10 Quiz#8: 0>8/10 Quiz#8: 0>8/10 Quiz#9: 0>8/10	Discrete Solutions

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11/28/2016	SC-2217	tXXc	tjgraves	MT1 Written 57>87/100	Introduction to Software
					Design

- 36. Your affiant and/or Detective Gibney have interviewed the majority of the University of Iowa professors associated with the aforementioned grade changes. All of the professors have denied making the grade changes. Several of the professors told your affiant and/or Detective Gibney they do not make grade changes from the classrooms associated with the aforementioned grade changes. Some of the professors told your affiant and/or Detective Gibney they generally do not make grade changes as that responsibility falls upon their teacher's assistants (TA's).
- 37. During the course of this investigation, Detective Gibney and your affiant reviewed the electronic devices seized during this investigation. Upon reviewing Graves's cellular telephones, a photograph was discovered that your affiant believes shows Graves being logged in to a professor's email account. The photograph is a screenshot of a professor's email, with an attachment entitled "exam" highlighted.
- 38. While reviewing the devices owned by Graves and A.T., Detective Gibney and your affiant discovered several advance copies of exams which, based upon interviews of the professors, were not made available to the students during the semester in which they took the exam. For example, advance copies of the spring of 2016 exam 1, exam 2, and final exam for Mechanical Systems were found on both a thumb drive seized from Graves and a laptop seized from A.T. In addition, advance copies of the spring of 2016 Heat Transfer exam 1, exam 1 solutions, exam 2, and exam 2 solutions were found on the same thumb drive owned by Graves and the same laptop owned by A.T. Mechanical Systems and Heat Transfer are two classes in which student A.T. told Detective Gibney and your affiant that he/she received advance copies of the exams from Graves.
- 39. According to the University of Iowa, the information technology (IT) costs associated with their internal investigation, response to the discovery of the breech and remedial steps taken to update the University of Iowa ITS security is approximately \$67,900. This does not include the non-IT costs associated with professors reviewing their grades and updating their exams.

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40. Based on the foregoing information, your affiant submits there is probable cause to believe Trevor Graves intentionally accessed a computer without authorization, exceeded authorized access, obtained information from a protected computer and knowingly caused the transmission of a program, information code, and command, and as a result of such conduct, intentionally caused damage without authorization to a protected computer, thus violating 18 U.S.C. § 1030(a)(2)(C) and 18 U.S.C. § 1030(a)(5)(A).

Jeffrey S. Huber Special Agent

Federal Bureau of Investigation

Subscribed and sworn to before me on October 20, 2017:

John A. Jarvey

Chief United States District Court Judge